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Department of Defense
Fiscal Year (FY) 2019 Budget Estimates

February 2018

Air Force

Justification Book Volume 2 of 2

Aircraft Procurement, Air Force

Vol−2 Mods

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Department of the Air Force
FY 2019 President's Budget
Exhibit P-1 FY 2019 President's Budget
Total Obligational Authority
(Dollars in Thousands)

01 Feb 2018

Appropriation	FY 2017 (Base + OCO)	FY 2018 PB Request with CR Adj Base	FY 2018 Total PB Requests* with CR Adj Base	FY 2018 PB Request with CR Adj OCO
Aircraft Procurement, Air Force	16,001,410	13,776,229	13,776,229	1,784,069
Missile Procurement, Air Force	2,675,116	2,297,711	2,297,711	318,995
Space Procurement, Air Force	2,750,158	2,612,396	2,612,396	19,900
Procurement of Ammunition, Air Force	2,135,147	1,578,427	1,578,427	544,908
Other Procurement, Air Force	22,974,152	17,587,749	17,587,749	4,833,721
Total Department of the Air Force	46,535,983	37,852,512	37,852,512	7,501,593

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Department of the Air Force
FY 2019 President's Budget
Exhibit P-1 FY 2019 President's Budget
Total Obligational Authority
(Dollars in Thousands)

01 Feb 2018

Appropriation	FY 2018 Total PB Requests+ with CR Adj OCO	FY 2018 Emergency Requests** Emergency	FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs	FY 2018 Remaining Req Emergency
Aircraft Procurement, Air Force	1,784,069			
Missile Procurement, Air Force	318,995	12,000	-12,000	
Space Procurement, Air Force	19,900			
Procurement of Ammunition, Air Force	544,908			
Other Procurement, Air Force	4,833,721	288,055	-288,055	
Total Department of the Air Force	7,501,593	300,055	-300,055	

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Department of the Air Force
FY 2019 President's Budget
Exhibit P-1 FY 2019 President's Budget
Total Obligational Authority
(Dollars in Thousands)

01 Feb 2018

Appropriation	FY 2018 Total PB Requests* with CR Adj Base + OCO + Emergency**	FY 2018 Less Enacted DIV B P.L.115-96*** MDDE + Ship Repairs	FY 2018 Remaining Req with CR Adj Base + OCO + Emergency
Aircraft Procurement, Air Force	15,560,298		15,560,298
Missile Procurement, Air Force	2,628,706	-12,000	2,616,706
Space Procurement, Air Force	2,632,296		2,632,296
Procurement of Ammunition, Air Force	2,123,335		2,123,335
Other Procurement, Air Force	22,709,525	-288,055	22,421,470
Total Department of the Air Force	45,654,160	-300,055	45,354,105

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Department of the Air Force
FY 2019 President's Budget
Exhibit P-1 FY 2019 President's Budget
Total Obligational Authority
(Dollars in Thousands)

01 Feb 2018

Appropriation	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Aircraft Procurement, Air Force	16,206,937	1,018,888	17,225,825
Missile Procurement, Air Force	2,669,454	493,526	3,162,980
Space Procurement, Air Force	2,527,542		2,527,542
Procurement of Ammunition, Air Force	1,587,304	1,421,516	3,008,820
Other Procurement, Air Force	20,566,125	4,049,983	24,616,108
Total Department of the Air Force	43,557,362	6,983,913	50,541,275

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Department of the Air Force
FY 2019 President's Budget
Exhibit P-1 FY 2019 President's Budget
Total Obligational Authority
(Dollars in Thousands)

01 Feb 2018

Appropriation: Aircraft Procurement, Air Force

Budget Activity	FY 2017 (Base + OCO)	FY 2018 PB Request with CR Adj Base	FY 2018 Total PB Requests* with CR Adj Base	FY 2018 PB Request with CR Adj OCO
01. Combat Aircraft	5,082,394	5,324,984	5,324,984	
02. Airlift Aircraft	3,832,779	3,211,257	3,211,257	
04. Other Aircraft	838,370	229,677	229,677	271,080
05. Modification of Inservice Aircraft	3,326,605	3,573,914	3,573,914	314,831
06. Aircraft Spares and Repair Parts	1,013,994	1,041,569	1,041,569	129,450
07. Aircraft Supt Equipment & Facilities	1,907,268	2,049,448	2,049,448	25,417
20. Undistributed		-1,654,620	-1,654,620	1,043,291
Total Aircraft Procurement, Air Force	16,001,410	13,776,229	13,776,229	1,784,069

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Department of the Air Force
FY 2019 President's Budget
Exhibit P-1 FY 2019 President's Budget
Total Obligational Authority
(Dollars in Thousands)

01 Feb 2018

Appropriation: Aircraft Procurement, Air Force

Budget Activity	FY 2018 Total PB Requests+ with CR Adj OCO	FY 2018 Emergency Requests** Emergency	FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs	FY 2018 Remaining Req Emergency
01. Combat Aircraft				
02. Airlift Aircraft				
04. Other Aircraft	271,080			
05. Modification of Inservice Aircraft	314,831			
06. Aircraft Spares and Repair Parts	129,450			
07. Aircraft Supt Equipment & Facilities	25,417			
20. Undistributed	1,043,291			
Total Aircraft Procurement, Air Force	1,784,069			

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Department of the Air Force
FY 2019 President's Budget
Exhibit P-1 FY 2019 President's Budget
Total Obligational Authority
(Dollars in Thousands)

01 Feb 2018

Appropriation: Aircraft Procurement, Air Force

Budget Activity	FY 2018 Total PB Requests* with CR Adj Base + OCO + Emergency**	FY 2018 Less Enacted DIV B P.L.115-96*** MDDE + Ship Repairs	FY 2018 Remaining Req with CR Adj Base + OCO + Emergency
01. Combat Aircraft	5,324,984		5,324,984
02. Airlift Aircraft	3,211,257		3,211,257
04. Other Aircraft	500,757		500,757
05. Modification of Inservice Aircraft	3,888,745		3,888,745
06. Aircraft Spares and Repair Parts	1,171,019		1,171,019
07. Aircraft Supt Equipment & Facilities	2,074,865		2,074,865
20. Undistributed	-611,329		-611,329
Total Aircraft Procurement, Air Force	15,560,298		15,560,298

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Department of the Air Force
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Total Obligational Authority
(Dollars in Thousands)

01 Feb 2018

Appropriation: Aircraft Procurement, Air Force

Budget Activity	FY 2019 Base	FY 2019 OCO	FY 2019 Total
01. Combat Aircraft	4,889,197		4,889,197
02. Airlift Aircraft	3,713,407	100,000	3,813,407
04. Other Aircraft	1,151,793	353,240	1,505,033
05. Modification of Inservice Aircraft	3,697,629	419,619	4,117,248
06. Aircraft Spares and Repair Parts	956,408	91,500	1,047,908
07. Aircraft Supt Equipment & Facilities	1,798,503	54,529	1,853,032
20. Undistributed			
Total Aircraft Procurement, Air Force	16,206,937	1,018,888	17,225,825

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Department of the Air Force
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Exhibit P-1 FY 2019 President's Budget
Total Obligational Authority
(Dollars in Thousands)

01 Feb 2018

Appropriation: 3010F Aircraft Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2017 (Base + OCO) Quantity	FY 2017 (Base + OCO) Cost	FY 2018 PB Request with CR Adj Base Quantity	FY 2018 PB Request with CR Adj Base Cost	FY 2018 Total PB Requests* with CR Adj Base Quantity	FY 2018 Total PB Requests* with CR Adj Base Cost	FY 2018 PB Request with CR Adj OCO Quantity	FY 2018 PB Request with CR Adj OCO Cost	Sec
Budget Activity 01: Combat Aircraft											
Tactical Forces											
1	F-35	A	48	(5,091,154)	46	(4,949,184)	46	(4,949,184)			U
	Less: Advance Procurement (PY)			(-413,260)		(-404,500)		(-404,500)			U
				4,677,894		4,544,684		4,544,684			
2	F-35										
	Advance Procurement (CY)			404,500		780,300		780,300			U
	C (FY 2017 for FY 2018) (M)			(404,500)							
	C (FY 2018 for FY 2019) (M)					(608,100)		(608,100)			
	C (FY 2018 for FY 2020) (M)					(172,200)		(172,200)			
	C (FY 2019 for FY 2020) (M)										
Other Combat Aircraft											
3	C-135B	A									U
Total Combat Aircraft				5,082,394		5,324,984		5,324,984			
Budget Activity 02: Airlift Aircraft											
Tactical Airlift											
4	C-130J	A	5	416,654							U
5	KC-46A Tanker	A	15	2,567,191	15	2,545,674	15	2,545,674			U
Other Airlift											
6	C-130J	A				(57,708)		(57,708)			U

Less: Advance Procurement (PY)	(-38,000)			U
	-38,000	57,708	57,708	

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Total Obligational Authority
(Dollars in Thousands)

01 Feb 2018

Appropriation: 3010F Aircraft Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2018 Total PB Requests+ with CR Adj OCO Quantity	FY 2018 Total PB Requests+ with CR Adj OCO Cost	FY 2018 Emergency Requests** Emergency Quantity	FY 2018 Emergency Requests** Emergency Cost	FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs Quantity	FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs Cost	FY 2018 Remaining Req Emergency Quantity	FY 2018 Remaining Req Emergency Cost	Sec
	Budget Activity 01: Combat Aircraft										
	Tactical Forces										
1	F-35	A									U
	Less: Advance Procurement (PY)										U
				----------		----------		----------		----------	
2	F-35										
	Advance Procurement (CY)										U
	C (FY 2017 for FY 2018) (M)										
	C (FY 2018 for FY 2019) (M)										
	C (FY 2018 for FY 2020) (M)										
	C (FY 2019 for FY 2020) (M)										
	Other Combat Aircraft										
3	C-135B	A									U
				----------		----------		----------		----------	
	Total Combat Aircraft										
	Budget Activity 02: Airlift Aircraft										
	Tactical Airlift										
4	C-130J	A									U
5	KC-46A Tanker	A									U
	Other Airlift										
6	C-130J	A									U

Less: Advance Procurement (PY)				U
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Total Obligational Authority
(Dollars in Thousands)

01 Feb 2018

Appropriation: 3010F Aircraft Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2018 Total PB Requests* with CR Adj Base + OCO + Emergency** Quantity	Cost	FY 2018 Less Enacted DIV B P.L.115-96*** MDDE + Ship Repairs Quantity	Cost	FY 2018 Remaining Req with CR Adj Base + OCO + Emergency Quantity	Cost	Sec
	Budget Activity 01: Combat Aircraft								
	Tactical Forces								
1	F-35	A	46	(4,949,184)			46	(4,949,184)	U
	Less: Advance Procurement (PY)			(-404,500)				(-404,500)	U
				4,544,684				4,544,684	
2	F-35								
	Advance Procurement (CY)			780,300				780,300	U
	C (FY 2017 for FY 2018) (M)								
	C (FY 2018 for FY 2019) (M)			(608,100)				(608,100)	
	C (FY 2018 for FY 2020) (M)			(172,200)				(172,200)	
	C (FY 2019 for FY 2020) (M)								
	Other Combat Aircraft								
3	C-135B	A							U
	Total Combat Aircraft			5,324,984				5,324,984	
	Budget Activity 02: Airlift Aircraft								
	Tactical Airlift								
4	C-130J	A							U
5	KC-46A Tanker	A	15	2,545,674			15	2,545,674	U
	Other Airlift								
6	C-130J	A		(57,708)				(57,708)	U

Less: Advance Procurement (PY)				U
	57,708		57,708	

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Total Obligational Authority
(Dollars in Thousands)

01 Feb 2018

Appropriation: 3010F Aircraft Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2019 Base Quantity	FY 2019 Base Cost	FY 2019 OCO Quantity	FY 2019 OCO Cost	FY 2019 Total Quantity	FY 2019 Total Cost	Sec
	Budget Activity 01: Combat Aircraft								
	Tactical Forces								
1	F-35	A	48	(4,869,121)			48	(4,869,121)	U
	Less: Advance Procurement (PY)			(-608,100)				(-608,100)	U
				4,261,021				4,261,021	
2	F-35								
	Advance Procurement (CY)			406,000				406,000	U
	C (FY 2017 for FY 2018) (M)								
	C (FY 2018 for FY 2019) (M)								
	C (FY 2018 for FY 2020) (M)								
	C (FY 2019 for FY 2020) (M)			(406,000)				(406,000)	
	Other Combat Aircraft								
3	C-135B	A	2	222,176			2	222,176	U
	Total Combat Aircraft			4,889,197				4,889,197	
	Budget Activity 02: Airlift Aircraft								
	Tactical Airlift								
4	C-130J	A		35,858				35,858	U
5	KC-46A Tanker	A	15	2,559,911			15	2,559,911	U
	Other Airlift								
6	C-130J	A							U

Less: Advance Procurement (PY)			U
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Total Obligational Authority
(Dollars in Thousands)

01 Feb 2018

Appropriation: 3010F Aircraft Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2017 (Base + OCO) Quantity	FY 2017 (Base + OCO) Cost	FY 2018 PB Request with CR Adj Base Quantity	FY 2018 PB Request with CR Adj Base Cost	FY 2018 Total PB Requests* with CR Adj Base Quantity	FY 2018 Total PB Requests* with CR Adj Base Cost	FY 2018 PB Request with CR Adj OCO Quantity	FY 2018 PB Request with CR Adj OCO Cost	Sec
7	HC-130J	A	4	(359,576)	2	(218,502)	2	(218,502)			U
	Less: Advance Procurement (PY)			(-42,000)		(-20,000)		(-20,000)			U
				317,576		198,502		198,502			
8	HC-130J										
	Advance Procurement (CY)			20,000							U
	C (FY 2017 for FY 2018) (M)			(20,000)							
9	MC-130J	A	6	(579,358)	5	(453,373)	5	(453,373)			U
	Less: Advance Procurement (PY)			(-80,000)		(-74,000)		(-74,000)			U
				499,358		379,373		379,373			
10	MC-130J										
	Advance Procurement (CY)			50,000		30,000		30,000			U
	C (FY 2017 for FY 2018) (M)			(50,000)							
	C (FY 2018 for FY 2019) (M)					(30,000)		(30,000)			
	C (FY 2019 for FY 2020) (M)										
	C (FY 2019 for FY 2021) (M)										
	C (FY 2019 for FY 2022) (M)										
	C (FY 2019 for FY 2023) (M)										
Total Airlift Aircraft				3,832,779		3,211,257		3,211,257			
Budget Activity 04: Other Aircraft											
	Helicopters										
11	UH-1N Replacement	A		18,337							U
12	Combat Rescue Helicopter	A									U
13	CV-22 (MYP)	A	1	97,000							U

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Department of the Air Force
FY 2019 President's Budget
Exhibit P-1 FY 2019 President's Budget
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(Dollars in Thousands)

01 Feb 2018

Appropriation: 3010F Aircraft Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2018 Total PB Requests+ with CR Adj OCO Quantity	FY 2018 Total PB Requests+ with CR Adj OCO Cost	FY 2018 Emergency Requests** Emergency Quantity	FY 2018 Emergency Requests** Emergency Cost	FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs Quantity	FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs Cost	FY 2018 Remaining Req Emergency Quantity	FY 2018 Remaining Req Emergency Cost	Sec
7	HC-130J	A									U
	Less: Advance Procurement (PY)										U
				----------		----------		----------		----------	
8	HC-130J										
	Advance Procurement (CY)										U
	C (FY 2017 for FY 2018) (M)										
9	MC-130J	A									U
	Less: Advance Procurement (PY)										U
				----------		----------		----------		----------	
10	MC-130J										
	Advance Procurement (CY)										U
	C (FY 2017 for FY 2018) (M)										
	C (FY 2018 for FY 2019) (M)										
	C (FY 2019 for FY 2020) (M)										
	C (FY 2019 for FY 2021) (M)										
	C (FY 2019 for FY 2022) (M)										
	C (FY 2019 for FY 2023) (M)										
				----------		----------		----------		----------	
Total Airlift Aircraft											
Budget Activity 04: Other Aircraft											
Helicopters											
11	UH-1N Replacement	A									U
12	Combat Rescue Helicopter	A									U
13	CV-22 (MYP)	A									U

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Department of the Air Force
FY 2019 President's Budget
Exhibit P-1 FY 2019 President's Budget
Total Obligational Authority
(Dollars in Thousands)

01 Feb 2018

Appropriation: 3010F Aircraft Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2018 Total PB Requests* with CR Adj Base + OCO + Emergency** Quantity	Cost	FY 2018 Less Enacted DIV B P.L.115-96*** MDDE + Ship Repairs Quantity	Cost	FY 2018 Remaining Req with CR Adj Base + OCO + Emergency Quantity	Cost	Sec
7	HC-130J	A	2	(218,502)			2	(218,502)	U
	Less: Advance Procurement (PY)			(-20,000)				(-20,000)	U
				198,502				198,502	
8	HC-130J								
	Advance Procurement (CY)								U
	C (FY 2017 for FY 2018) (M)								
9	MC-130J	A	5	(453,373)			5	(453,373)	U
	Less: Advance Procurement (PY)			(-74,000)				(-74,000)	U
				379,373				379,373	
10	MC-130J								
	Advance Procurement (CY)			30,000				30,000	U
	C (FY 2017 for FY 2018) (M)								
	C (FY 2018 for FY 2019) (M)			(30,000)				(30,000)	
	C (FY 2019 for FY 2020) (M)								
	C (FY 2019 for FY 2021) (M)								
	C (FY 2019 for FY 2022) (M)								
	C (FY 2019 for FY 2023) (M)								
Total Airlift Aircraft				3,211,257				3,211,257	

Budget Activity 04: Other Aircraft

Helicopters

11	UH-1N Replacement	A							U
12	Combat Rescue Helicopter	A							U
13	CV-22 (MYP)	A							U

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Department of the Air Force
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Total Obligational Authority
(Dollars in Thousands)

01 Feb 2018

Appropriation: 3010F Aircraft Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2019 Base Quantity	FY 2019 Base Cost	FY 2019 OCO Quantity	FY 2019 OCO Cost	FY 2019 Total Quantity	FY 2019 Total Cost	Sec
7	HC-130J	A	1	(129,437)	1	(100,000)	2	(229,437)	U
	Less: Advance Procurement (PY)								U
				129,437		100,000		229,437	
8	HC-130J								
	Advance Procurement (CY)								U
	C (FY 2017 for FY 2018) (M)								
9	MC-130J	A	6	(800,201)			6	(800,201)	U
	Less: Advance Procurement (PY)			(-30,000)				(-30,000)	U
				770,201				770,201	
10	MC-130J								
	Advance Procurement (CY)			218,000				218,000	U
	C (FY 2017 for FY 2018) (M)								
	C (FY 2018 for FY 2019) (M)								
	C (FY 2019 for FY 2020) (M)			(182,000)				(182,000)	
	C (FY 2019 for FY 2021) (M)			(16,000)				(16,000)	
	C (FY 2019 for FY 2022) (M)			(12,000)				(12,000)	
	C (FY 2019 for FY 2023) (M)			(8,000)				(8,000)	
Total Airlift Aircraft				3,713,407		100,000		3,813,407	
Budget Activity 04: Other Aircraft									
Helicopters									
11	UH-1N Replacement	A							U
12	Combat Rescue Helicopter	A	10	680,201			10	680,201	U
13	CV-22 (MYP)	A							U

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Total Obligational Authority
(Dollars in Thousands)

01 Feb 2018

Appropriation: 3010F Aircraft Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2017 (Base + OCO) Quantity	FY 2017 (Base + OCO) Cost	FY 2018 PB Request with CR Adj Base Quantity	FY 2018 PB Request with CR Adj Base Cost	FY 2018 Total PB Requests* with CR Adj Base Quantity	FY 2018 Total PB Requests* with CR Adj Base Cost	FY 2018 PB Request with CR Adj OCO Quantity	FY 2018 PB Request with CR Adj OCO Cost	Sec
	Mission Support Aircraft										
14	Civil Air Patrol A/C	A	6	10,337	6	2,695	6	2,695			U
	Other Aircraft										
15	Target Drones	A	33	114,656	42	109,841	42	109,841			U
16	Compass Call Mods	A		103,000							U
17	RQ-4	A		6,488							U
18	MQ-9	A	24	488,552		117,141		117,141	32	271,080	U
19	RQ-20B Puma	A									U
Total Other Aircraft				838,370		229,677		229,677		271,080	
Budget Activity 05: Modification of Inservice Aircraft											
	Strategic Aircraft										
20	B-2A	A		38,950		96,727		96,727			U
21	B-1B	A		150,319		155,634		155,634			U
22	B-52	A		109,020		109,295		109,295			U
23	Large Aircraft Infrared Countermeasures	A		135,801		4,046		4,046			U
	Tactical Aircraft										
24	A-10	A		82,789		6,010		6,010			U

25	C-130J	A				U
26	F-15	A	145,406	417,193	417,193	U

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01 Feb 2018

Appropriation: 3010F Aircraft Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2018 Total PB Requests+ with CR Adj OCO Quantity	FY 2018 Total PB Requests+ with CR Adj OCO Cost	FY 2018 Emergency Requests** Emergency Quantity	FY 2018 Emergency Requests** Emergency Cost	FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs Quantity	FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs Cost	FY 2018 Remaining Req Emergency Quantity	FY 2018 Remaining Req Emergency Cost	Sec
	Mission Support Aircraft										
14	Civil Air Patrol A/C	A									U
	Other Aircraft										
15	Target Drones	A									U
16	Compass Call Mods	A									U
17	RQ-4	A									U
18	MQ-9	A	32	271,080							U
19	RQ-20B Puma	A									U
Total Other Aircraft				271,080							
Budget Activity 05: Modification of Inservice Aircraft											
	Strategic Aircraft										
20	B-2A	A									U
21	B-1B	A									U
22	B-52	A									U
23	Large Aircraft Infrared Countermeasures	A									U
	Tactical Aircraft										
24	A-10	A									U

25	C-130J	A	U
26	F-15	A	U

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(Dollars in Thousands)

01 Feb 2018

Appropriation: 3010F Aircraft Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2018 Total PB Requests* with CR Adj Base + OCO + Emergency** Quantity	Cost	FY 2018 Less Enacted DIV B P.L.115-96*** MDDE + Ship Repairs Quantity	Cost	FY 2018 Remaining Req with CR Adj Base + OCO + Emergency Quantity	Cost	Sec
	Mission Support Aircraft								
14	Civil Air Patrol A/C	A	6	2,695			6	2,695	U
	Other Aircraft								
15	Target Drones	A	42	109,841			42	109,841	U
16	Compass Call Mods	A							U
17	RQ-4	A							U
18	MQ-9	A	32	388,221			32	388,221	U
19	RQ-20B Puma	A							U
Total Other Aircraft				500,757				500,757	
Budget Activity 05: Modification of Inservice Aircraft									
	Strategic Aircraft								
20	B-2A	A		96,727				96,727	U
21	B-1B	A		155,634				155,634	U
22	B-52	A		109,295				109,295	U
23	Large Aircraft Infrared Countermeasures	A		4,046				4,046	U
	Tactical Aircraft								
24	A-10	A		6,010				6,010	U

25	C-130J	A			U
26	F-15	A	417,193	417,193	U

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Appropriation: 3010F Aircraft Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2019 Base Quantity	FY 2019 Base Cost	FY 2019 OCO Quantity	FY 2019 OCO Cost	FY 2019 Total Quantity	FY 2019 Total Cost	Sec
	Mission Support Aircraft								
14	Civil Air Patrol A/C	A	4	2,719			4	2,719	U
	Other Aircraft								
15	Target Drones	A	48	139,053			48	139,053	U
16	Compass Call Mods	A	1	108,113			1	108,113	U
17	RQ-4	A							U
18	MQ-9	A	8	221,707	21	339,740	29	561,447	U
19	RQ-20B Puma	A				13,500		13,500	U
Total Other Aircraft				1,151,793		353,240		1,505,033	
Budget Activity 05: Modification of Inservice Aircraft									
	Strategic Aircraft								
20	B-2A	A		60,301				60,301	U
21	B-1B	A		51,290		4,000		55,290	U
22	B-52	A		105,519				105,519	U
23	Large Aircraft Infrared Countermeasures	A				149,778		149,778	U
	Tactical Aircraft								
24	A-10	A		98,720		10,350		109,070	U

25 C-130J	A	10,831	10,831	U
26 F-15	A	548,109	548,109	U

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Line No	Item Nomenclature	Ident Code	FY 2017 (Base + OCO) Quantity	FY 2017 (Base + OCO) Cost	FY 2018 PB Request with CR Adj Base Quantity	FY 2018 PB Request with CR Adj Base Cost	FY 2018 Total PB Requests* with CR Adj Base Quantity	FY 2018 Total PB Requests* with CR Adj Base Cost	FY 2018 PB Request with CR Adj OCO Quantity	FY 2018 PB Request with CR Adj OCO Cost	Sec
27	F-16	A		274,331		203,864		203,864			U
28	F-16	A									U
29	F-22A	A		(146,008)		(161,630)		(161,630)			U
	Less: Advance Procurement (PY)										U
				146,008		161,630		161,630			
30	F-22A										
	Advance Procurement (CY)					15,000		15,000			U
	C (FY 2018 for FY 2019) (M)					(15,000)		(15,000)			
31	F-35 Modifications	A		115,811		68,270		68,270			U
32	F-15 EPAW	A									U
33	Increment 3.2b	A		(76,410)	72	(107,756)	72	(107,756)			U
	Less: Advance Procurement (PY)					(-2,000)		(-2,000)			U
				76,410		105,756		105,756			
34	Increment 3.2b										
	Advance Procurement (CY)			2,000							U
	C (FY 2017 for FY 2018) (M)			(2,000)							
35	KC-46A Tanker	A				6,213		6,213			U
	Airlift Aircraft										
36	C-5	A		24,192		36,592		36,592			U
37	C-5M	A				6,817		6,817			U
38	C-17A	A		17,455		125,522		125,522		26,850	U

39 C-21	A	439	13,253	13,253	U

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Line No	Item Nomenclature	Ident Code	FY 2018 Total PB Requests+ with CR Adj OCO Quantity	FY 2018 Total PB Requests+ with CR Adj OCO Cost	FY 2018 Emergency Requests** Emergency Quantity	FY 2018 Emergency Requests** Emergency Cost	FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs Quantity	FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs Cost	FY 2018 Remaining Req Emergency Quantity	FY 2018 Remaining Req Emergency Cost	Sec
27	F-16	A									U
28	F-16	A									U
29	F-22A	A									U
	Less: Advance Procurement (PY)										U
30	F-22A Advance Procurement (CY) C (FY 2018 for FY 2019) (M)										U
31	F-35 Modifications	A									U
32	F-15 EPAW	A									U
33	Increment 3.2b	A									U
	Less: Advance Procurement (PY)										U
34	Increment 3.2b Advance Procurement (CY) C (FY 2017 for FY 2018) (M)										U
35	KC-46A Tanker	A									U
	Airlift Aircraft										
36	C-5	A									U
37	C-5M	A									U
38	C-17A	A		26,850							U

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Line No	Item Nomenclature	Ident Code	FY 2018 Total PB Requests* with CR Adj Base + OCO + Emergency** Quantity	Cost	FY 2018 Less Enacted DIV B P.L.115-96*** MDDE + Ship Repairs Quantity	Cost	FY 2018 Remaining Req with CR Adj Base + OCO + Emergency Quantity	Cost	Sec
27	F-16	A		203,864				203,864	U
28	F-16	A							U
29	F-22A	A		(161,630)				(161,630)	U
	Less: Advance Procurement (PY)								U
				161,630				161,630	
30	F-22A								
	Advance Procurement (CY)			15,000				15,000	U
	C (FY 2018 for FY 2019) (M)			(15,000)				(15,000)	
31	F-35 Modifications	A		68,270				68,270	U
32	F-15 EPAW	A							U
33	Increment 3.2b	A	72	(107,756)			72	(107,756)	U
	Less: Advance Procurement (PY)			(-2,000)				(-2,000)	U
				105,756				105,756	
34	Increment 3.2b								
	Advance Procurement (CY)								U
	C (FY 2017 for FY 2018) (M)								
35	KC-46A Tanker	A		6,213				6,213	U
	Airlift Aircraft								
36	C-5	A		36,592				36,592	U
37	C-5M	A		6,817				6,817	U
38	C-17A	A		152,372				152,372	U

39 C-21	A	13,253	13,253	U

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Line No	Item Nomenclature	Ident Code	FY 2019 Base Quantity	FY 2019 Base Cost	FY 2019 OCO Quantity	FY 2019 OCO Cost	FY 2019 Total Quantity	FY 2019 Total Cost	Sec
27	F-16	A		324,312				324,312	U
28	F-16	A		11				11	U
29	F-22A	A		(265,710)				(265,710)	U
	Less: Advance Procurement (PY)			(-15,000)				(-15,000)	U
				250,710				250,710	
30	F-22A								
	Advance Procurement (CY)								U
	C (FY 2018 for FY 2019) (M)								
31	F-35 Modifications	A		247,271				247,271	U
32	F-15 EPAW	A		147,685				147,685	U
33	Increment 3.2b	A		(9,007)				(9,007)	U
	Less: Advance Procurement (PY)								U
				9,007				9,007	
34	Increment 3.2b								
	Advance Procurement (CY)								U
	C (FY 2017 for FY 2018) (M)								
35	KC-46A Tanker	A		8,547				8,547	U
	Airlift Aircraft								
36	C-5	A		77,845				77,845	U
37	C-5M	A							U
38	C-17A	A		102,121				102,121	U

39 C-21	A	17,516	17,516	U

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Line No	Item Nomenclature	Ident Code	FY 2017 (Base + OCO) Quantity	FY 2017 (Base + OCO) Cost	FY 2018 PB Request with CR Adj Base Quantity	FY 2018 PB Request with CR Adj Base Cost	FY 2018 Total PB Requests* with CR Adj Base Quantity	FY 2018 Total PB Requests* with CR Adj Base Cost	FY 2018 PB Request with CR Adj OCO Quantity	FY 2018 PB Request with CR Adj OCO Cost	Sec
40	C-32A	A		30,235		79,449		79,449			U
41	C-37A	A		5,004		15,423		15,423			U
42	C-130J	A				10,727		10,727			U
	Trainer Aircraft										
43	Glider Mods	A		473		136		136			U
44	T-6	A		12,765		35,706		35,706			U
45	T-1	A		13,294		21,477		21,477			U
46	T-38	A		33,590		51,641		51,641			U
	Other Aircraft										
47	U-2 Mods			36,074		36,406		36,406			U
48	KC-10A (ATCA)	A		4,570		4,243		4,243			U
49	C-12	A		2,298		5,846		5,846			U
50	VC-25A Mod	A		102,452		52,107		52,107			U
51	C-40	A		13,884		31,119		31,119			U
52	C-130	A		230,168		66,310		66,310			U
53	C-130J Mods	A		89,424		171,230		171,230		8,400	U
54	C-135	A		64,161		69,428		69,428			U
55	OC-135B	A				23,091		23,091			U

56 Compass Call Mods	A	212,657	166,541	166,541	56,720 U

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40	C-32A	A									U
41	C-37A	A									U
42	C-130J	A									U
	Trainer Aircraft										
43	Glider Mods	A									U
44	T-6	A									U
45	T-1	A									U
46	T-38	A									U
	Other Aircraft										
47	U-2 Mods										U
48	KC-10A (ATCA)	A									U
49	C-12	A									U
50	VC-25A Mod	A									U
51	C-40	A									U
52	C-130	A									U
53	C-130J Mods	A		8,400							U
54	C-135	A									U
55	OC-135B	A									U

56 Compass Call Mods	A	56,720	U

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40	C-32A	A		79,449				79,449	U
41	C-37A	A		15,423				15,423	U
42	C-130J	A		10,727				10,727	U
	Trainer Aircraft								
43	Glider Mods	A		136				136	U
44	T-6	A		35,706				35,706	U
45	T-1	A		21,477				21,477	U
46	T-38	A		51,641				51,641	U
	Other Aircraft								
47	U-2 Mods			36,406				36,406	U
48	KC-10A (ATCA)	A		4,243				4,243	U
49	C-12	A		5,846				5,846	U
50	VC-25A Mod	A		52,107				52,107	U
51	C-40	A		31,119				31,119	U
52	C-130	A		66,310				66,310	U
53	C-130J Mods	A		179,630				179,630	U
54	C-135	A		69,428				69,428	U
55	OC-135B	A		23,091				23,091	U

56 Compass Call Mods	A	223,261	223,261	U

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Line No	Item Nomenclature	Ident Code	FY 2019 Base Quantity	FY 2019 Base Cost	FY 2019 OCO Quantity	FY 2019 OCO Cost	FY 2019 Total Quantity	FY 2019 Total Cost	Sec
40	C-32A	A		4,537				4,537	U
41	C-37A	A		419				419	U
42	C-130J	A							U
	Trainer Aircraft								
43	Glider Mods	A		137				137	U
44	T-6	A		22,550				22,550	U
45	T-1	A		21,952				21,952	U
46	T-38	A		70,623				70,623	U
	Other Aircraft								
47	U-2 Mods			48,774		7,900		56,674	U
48	KC-10A (ATCA)	A		11,104				11,104	U
49	C-12	A		4,900				4,900	U
50	VC-25A Mod	A		36,938				36,938	U
51	C-40	A		251				251	U
52	C-130	A		22,094				22,094	U
53	C-130J Mods	A		132,045				132,045	U
54	C-135	A		113,076				113,076	U
55	OC-135B	A		5,913				5,913	U

56 Compass Call Mods	A	49,885	36,400	86,285	U

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57	combat flight inspection (CFIN)	A				495		495			U
58	RC-135	A		217,238		201,559		201,559			U
59	E-3	A		89,386		189,772		189,772			U
60	E-4	A		53,348		30,493		30,493			U
61	E-8	A		28,944		13,232		13,232		3,000	U
62	Airborne Warning and Cntr Sys (AWACS) 40/45	A		245,227		164,786		164,786			U
63	Family of Beyond Line-of-Sight Terminals	A		4,673		24,716		24,716			U
64	H-1	A		9,007		3,730		3,730			U
65	H-60	A		94,057		75,989		75,989			U
66	RQ-4 Mods	A		32,045		43,968		43,968			U
67	HC/MC-130 Modifications	A		51,317		67,674		67,674		153,080	U
68	Other Aircraft	A		41,386		59,068		59,068		10,381	U
69	MQ-9 Mods	A		203,697		264,740		264,740		56,400	U
70	MQ-9 UAS Payloads	A		22,905							U
71	CV-22 Mods	A		63,395		60,990		60,990			U
Total Modification of Inservice Aircraft				3,326,605		3,573,914		3,573,914		314,831	

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57	combat flight inspection (CFIN)	A									U
58	RC-135	A									U
59	E-3	A									U
60	E-4	A									U
61	E-8	A		3,000							U
62	Airborne Warning and Cntr Sys (AWACS) 40/45	A									U
63	Family of Beyond Line-of-Sight Terminals	A									U
64	H-1	A									U
65	H-60	A									U
66	RQ-4 Mods	A									U
67	HC/MC-130 Modifications	A		153,080							U
68	Other Aircraft	A		10,381							U
69	MQ-9 Mods	A		56,400							U
70	MQ-9 UAS Payloads	A									U
71	CV-22 Mods	A									U
Total Modification of Inservice Aircraft				314,831							

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57	combat flight inspection (CFIN)	A		495				495	U
58	RC-135	A		201,559				201,559	U
59	E-3	A		189,772				189,772	U
60	E-4	A		30,493				30,493	U
61	E-8	A		16,232				16,232	U
62	Airborne Warning and Cntr Sys (AWACS) 40/45	A		164,786				164,786	U
63	Family of Beyond Line-of-Sight Terminals	A		24,716				24,716	U
64	H-1	A		3,730				3,730	U
65	H-60	A		75,989				75,989	U
66	RQ-4 Mods	A		43,968				43,968	U
67	HC/MC-130 Modifications	A		220,754				220,754	U
68	Other Aircraft	A		69,449				69,449	U
69	MQ-9 Mods	A		321,140				321,140	U
70	MQ-9 UAS Payloads	A							U
71	CV-22 Mods	A		60,990				60,990	U
Total Modification of Inservice Aircraft				3,888,745				3,888,745	

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Line No	Item Nomenclature	Ident Code	FY 2019 Base Quantity	FY 2019 Base Cost	FY 2019 OCO Quantity	FY 2019 OCO Cost	FY 2019 Total Quantity	FY 2019 Total Cost	Sec
57	combat flight inspection (CFIN)	A		499				499	U
58	RC-135	A		394,532				394,532	U
59	E-3	A		133,906				133,906	U
60	E-4	A		67,858				67,858	U
61	E-8	A		9,919		13,000		22,919	U
62	Airborne Warning and Cntr Sys (AWACS) 40/45	A		57,780				57,780	U
63	Family of Beyond Line-of-Sight Terminals	A		14,293				14,293	U
64	H-1	A		2,940				2,940	U
65	H-60	A		55,466		40,560		96,026	U
66	RQ-4 Mods	A		23,715				23,715	U
67	HC/MC-130 Modifications	A		37,754		87,900		125,654	U
68	Other Aircraft	A		62,010		53,731		115,741	U
69	MQ-9 Mods	A		171,548				171,548	U
70	MQ-9 UAS Payloads	A				16,000		16,000	U
71	CV-22 Mods	A		60,416				60,416	U
Total Modification of Inservice Aircraft				3,697,629		419,619		4,117,248	

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Budget Activity 06: Aircraft Spares and Repair Parts											
	Aircraft Spares and Repair Parts										
72	Initial Spares/Repair Parts	A		1,013,994		1,041,569		1,041,569		129,450	U
Total Aircraft Spares and Repair Parts				1,013,994		1,041,569		1,041,569		129,450	
Budget Activity 07: Aircraft Supt Equipment & Facilities											
	Common Support Equipment										
73	Aircraft Replacement Support Equip	A		110,455		75,846		75,846		25,417	U
74	Other Production Charges	A				8,524		8,524			U
75	T-53A Trainer	A				501		501			U
	Post Production Support										
76	B-2A	A		154		447		447			U
77	B-2B	A		51,097		38,509		38,509			U
78	B-52	A		28,125		199		199			U
79	C-17A	A		83,859		12,028		12,028			U
80	RC-135	A				29,700		29,700			U
81	F-15	A				20,000		20,000			U
82	F-15	A		2,980		2,524		2,524			U

83 F-16	A	3,390	18,051	18,051	U

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	Budget Activity 06: Aircraft Spares and Repair Parts										
	Aircraft Spares and Repair Parts										
72	Initial Spares/Repair Parts	A		129,450							U
	Total Aircraft Spares and Repair Parts			129,450							
	Budget Activity 07: Aircraft Supt Equipment & Facilities										
	Common Support Equipment										
73	Aircraft Replacement Support Equip	A		25,417							U
74	Other Production Charges	A									U
75	T-53A Trainer	A									U
	Post Production Support										
76	B-2A	A									U
77	B-2B	A									U
78	B-52	A									U
79	C-17A	A									U
80	RC-135	A									U
81	F-15	A									U
82	F-15	A									U

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Department of the Air Force
FY 2019 President's Budget
Exhibit P-1 FY 2019 President's Budget
Total Obligational Authority
(Dollars in Thousands)

01 Feb 2018

Appropriation: 3010F Aircraft Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2018 Total PB Requests* with CR Adj Base + OCO + Emergency** Quantity	Cost	FY 2018 Less Enacted DIV B P.L.115-96*** MDDE + Ship Repairs Quantity	Cost	FY 2018 Remaining Req with CR Adj Base + OCO + Emergency Quantity	Cost	Sec
	Budget Activity 06: Aircraft Spares and Repair Parts								
	Aircraft Spares and Repair Parts								
72	Initial Spares/Repair Parts	A		1,171,019				1,171,019	U
	Total Aircraft Spares and Repair Parts			1,171,019				1,171,019	
	Budget Activity 07: Aircraft Supt Equipment & Facilities								
	Common Support Equipment								
73	Aircraft Replacement Support Equip	A		101,263				101,263	U
74	Other Production Charges	A		8,524				8,524	U
75	T-53A Trainer	A		501				501	U
	Post Production Support								
76	B-2A	A		447				447	U
77	B-2B	A		38,509				38,509	U
78	B-52	A		199				199	U
79	C-17A	A		12,028				12,028	U
80	RC-135	A		29,700				29,700	U
81	F-15	A		20,000				20,000	U
82	F-15	A		2,524				2,524	U

83 F-16	A	18,051	18,051	U

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Exhibit P-1 FY 2019 President's Budget
Total Obligational Authority
(Dollars in Thousands)

01 Feb 2018

Appropriation: 3010F Aircraft Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2019 Base Quantity	FY 2019 Base Cost	FY 2019 OCO Quantity	FY 2019 OCO Cost	FY 2019 Total Quantity	FY 2019 Total Cost	Sec
Budget Activity 06: Aircraft Spares and Repair Parts									
Aircraft Spares and Repair Parts									
72	Initial Spares/Repair Parts	A		956,408		91,500		1,047,908	U
Total Aircraft Spares and Repair Parts				956,408		91,500		1,047,908	
Budget Activity 07: Aircraft Supt Equipment & Facilities									
Common Support Equipment									
73	Aircraft Replacement Support Equip	A		81,241		32,529		113,770	U
74	Other Production Charges	A				22,000		22,000	U
75	T-53A Trainer	A							U
Post Production Support									
76	B-2A	A		1,763				1,763	U
77	B-2B	A		35,861				35,861	U
78	B-52	A		12,819				12,819	U
79	C-17A	A		10,114				10,114	U
80	RC-135	A							U
81	F-15	A		2,545				2,545	U
82	F-15	A							U

83 F-16	A	11,718	11,718	U

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Exhibit P-1 FY 2019 President's Budget
Total Obligational Authority
(Dollars in Thousands)

01 Feb 2018

Appropriation: 3010F Aircraft Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2017 (Base + OCO) Quantity	FY 2017 (Base + OCO) Cost	FY 2018 PB Request with CR Adj Base Quantity	FY 2018 PB Request with CR Adj Base Cost	FY 2018 Total PB Requests* with CR Adj Base Quantity	FY 2018 Total PB Requests* with CR Adj Base Cost	FY 2018 PB Request with CR Adj OCO Quantity	FY 2018 PB Request with CR Adj OCO Cost	Sec
84	F-22A	A		48,505		119,566		119,566			U
85	Other Aircraft	A		23,192		85,000		85,000			U
86	RQ-4 Post Production Charges	A		99		86,695		86,695			U
87	CV-22 Mods	A				4,500		4,500			U
	Industrial Preparedness										
88	Industrial Responsiveness	A		14,126		14,739		14,739			U
89	C-130J	A				102,000		102,000			U
	War Consumables										
90	War Consumables	A		120,036		37,647		37,647			U
	Other Production Charges										
91	Other Production Charges	A		1,401,380		1,339,160		1,339,160			U
93	Spectrum Relocation Fund	A		2,918							U
94	Other Aircraft	A				600		600			U
999	Classified Programs			16,952		53,212		53,212			U
	Total Aircraft Supt Equipment & Facilities			1,907,268		2,049,448		2,049,448		25,417	

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Exhibit P-1 FY 2019 President's Budget
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(Dollars in Thousands)

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Line No	Item Nomenclature	Ident Code	FY 2018 Total PB Requests+ with CR Adj OCO Quantity	FY 2018 Total PB Requests+ with CR Adj OCO Cost	FY 2018 Emergency Requests** Emergency Quantity	FY 2018 Emergency Requests** Emergency Cost	FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs Quantity	FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs Cost	FY 2018 Remaining Req Emergency Quantity	FY 2018 Remaining Req Emergency Cost	Sec
84	F-22A	A									U
85	Other Aircraft	A									U
86	RQ-4 Post Production Charges	A									U
87	CV-22 Mods	A									U
	Industrial Preparedness										
88	Industrial Responsiveness	A									U
89	C-130J	A									U
	War Consumables										
90	War Consumables	A									U
	Other Production Charges										
91	Other Production Charges	A									U
93	Spectrum Relocation Fund	A									U
94	Other Aircraft	A									U
999	Classified Programs										U
	Total Aircraft Supt Equipment & Facilities			25,417							

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(Dollars in Thousands)

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Line No	Item Nomenclature	Ident Code	FY 2018 Total PB Requests* with CR Adj Base + OCO + Emergency** Quantity	Cost	FY 2018 Less Enacted DIV B P.L.115-96*** MDDE + Ship Repairs Quantity	Cost	FY 2018 Remaining Req with CR Adj Base + OCO + Emergency Quantity	Cost	Sec
84	F-22A	A		119,566				119,566	U
85	Other Aircraft	A		85,000				85,000	U
86	RQ-4 Post Production Charges	A		86,695				86,695	U
87	CV-22 Mods	A		4,500				4,500	U
	Industrial Preparedness								
88	Industrial Responsiveness	A		14,739				14,739	U
89	C-130J	A		102,000				102,000	U
	War Consumables								
90	War Consumables	A		37,647				37,647	U
	Other Production Charges								
91	Other Production Charges	A		1,339,160				1,339,160	U
93	Spectrum Relocation Fund	A							U
94	Other Aircraft	A		600				600	U
999	Classified Programs			53,212				53,212	U
	Total Aircraft Supt Equipment & Facilities			2,074,865				2,074,865	

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Exhibit P-1 FY 2019 President's Budget
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Appropriation: 3010F Aircraft Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2019 Base Quantity	FY 2019 Base Cost	FY 2019 OCO Quantity	FY 2019 OCO Cost	FY 2019 Total Quantity	FY 2019 Total Cost	Sec
84	F-22A	A		14,489				14,489	U
85	Other Aircraft	A		9,928				9,928	U
86	RQ-4 Post Production Charges	A		40,641				40,641	U
87	CV-22 Mods	A							U
	Industrial Preparedness								
88	Industrial Responsiveness	A		17,378				17,378	U
89	C-130J	A							U
	War Consumables								
90	War Consumables	A		29,342				29,342	U
	Other Production Charges								
91	Other Production Charges	A		1,502,386				1,502,386	U
93	Spectrum Relocation Fund	A							U
94	Other Aircraft	A							U
999	Classified Programs			28,278				28,278	U
	Total Aircraft Supt Equipment & Facilities			1,798,503		54,529		1,853,032	

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(Dollars in Thousands)

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Appropriation: 3010F Aircraft Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2017 (Base + OCO) Quantity	FY 2017 (Base + OCO) Cost	FY 2018 PB Request with CR Adj Base Quantity	FY 2018 PB Request with CR Adj Base Cost	FY 2018 Total PB Requests* with CR Adj Base Quantity	FY 2018 Total PB Requests* with CR Adj Base Cost	FY 2018 PB Request with CR Adj OCO Quantity	FY 2018 PB Request with CR Adj OCO Cost	Sec
Budget Activity 20: Undistributed											
	Undistributed										
96	Adj to Match Continuing Resolution	A				-1,654,620		-1,654,620		1,043,291	U
Total Undistributed						-1,654,620		-1,654,620		1,043,291	
Total Aircraft Procurement, Air Force				16,001,410		13,776,229		13,776,229		1,784,069	

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Exhibit P-1 FY 2019 President's Budget
Total Obligational Authority
(Dollars in Thousands)

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Appropriation: 3010F Aircraft Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2018 Total PB Requests+ with CR Adj OCO Quantity	FY 2018 Total PB Requests+ with CR Adj OCO Cost	FY 2018 Emergency Requests** Emergency Quantity	FY 2018 Emergency Requests** Emergency Cost	FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs Quantity	FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs Cost	FY 2018 Remaining Req Emergency Quantity	FY 2018 Remaining Req Emergency Cost	Sec
Budget Activity 20: Undistributed											
	Undistributed										
	96 Adj to Match Continuing Resolution	A		1,043,291							U
Total Undistributed				1,043,291							
Total Aircraft Procurement, Air Force				1,784,069							

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Total Obligational Authority
(Dollars in Thousands)

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Line No	Item Nomenclature	Ident Code	FY 2018 Total PB Requests* with CR Adj Base + OCO + Emergency** Quantity	Cost	FY 2018 Less Enacted DIV B P.L.115-96*** MDDE + Ship Repairs Quantity	Cost	FY 2018 Remaining Req with CR Adj Base + OCO + Emergency Quantity	Cost	Sec
Budget Activity 20: Undistributed									
Undistributed									
96	Adj to Match Continuing Resolution	A		-611,329				-611,329	U
Total Undistributed				-611,329				-611,329	
Total Aircraft Procurement, Air Force				15,560,298				15,560,298	

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Exhibit P-1 FY 2019 President's Budget
Total Obligational Authority
(Dollars in Thousands)

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Appropriation: 3010F Aircraft Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2019 Base Quantity	FY 2019 Base Cost	FY 2019 OCO Quantity	FY 2019 OCO Cost	FY 2019 Total Quantity	FY 2019 Total Cost	Sec
Budget Activity 20: Undistributed									
	Undistributed								
96	Adj to Match Continuing Resolution	A							U
Total Undistributed									
Total Aircraft Procurement, Air Force				16,206,937		1,018,888		17,225,825	

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Appropriation 3010F: Aircraft Procurement, Air Force

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4	02	03	C130J0	C-130J	Volume 1 - 17
5	02	02	KC046A	KC-46A Tanker	Volume 1 - 27
6	02	03	C130J1	C-130J	Volume 1 - 37
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8	02	03	C130JH	HC-130J, Advance Procurement	Volume 1 - 49
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12	04	01	H060WH	Combat Rescue Helicopter	Volume 1 - 71
13	04	01	V022A0	CV-22 (MYP)	Volume 1 - 79
14	04	05	CAPAC0	Civil Air Patrol A/C	Volume 1 - 89
15	04	05	10TRGT	Target Drones	Volume 1 - 91
16	04	05	CALL00	Compass Call Mods	Volume 1 - 109
17	04	05	HAEUAV	RQ-4	Volume 1 - 119
18	04	05	PRDTB1	MQ-9	Volume 1 - 129
19	04	05	Q020BR	RQ-20B Puma	Volume 1 - 151

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22	05	01	B05200	B-52	Volume 2 - 63
23	05	01	LAIRCM	Large Aircraft Infrared Countermeasures	Volume 2 - 83
24	05	02	A01000	A-10	Volume 2 - 101
25	05	02	C130J0	C-130J	Volume 2 - 113
26	05	02	F01500	F-15	Volume 2 - 115
27	05	02	F01600	F-16	Volume 2 - 157
28	05	02	F0160P	F-16	Volume 2 - 181
29	05	02	F02200	F-22A	Volume 2 - 183
30	05	02	F02200	F-22A, Advance Procurement	Volume 2 - 231
31	05	02	F03500	F-35 Modifications	Volume 2 - 235
32	05	02	F15EWS	F-15 EPAW	Volume 2 - 257
33	05	02	F2232B	Increment 3.2b	Volume 2 - 265
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35	05	02	KC046A	KC-46A Tanker	Volume 2 - 275
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37	05	03	C005M0	C-5M	Volume 2 - 299
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42	05	03	C130J0	C-130J Mods	Volume 2 - 331
43	05	04	GLID00	Glider Mods	Volume 2 - 333
44	05	04	JPAT00	T-6	Volume 2 - 335
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47	05	05	11U200	U-2 Mods	Volume 2 - 363
48	05	05	C01000	KC-10A (ATCA)	Volume 2 - 369
49	05	05	C01200	C-12	Volume 2 - 375
50	05	05	C02500	VC-25A Mod	Volume 2 - 377
51	05	05	C04000	C-40	Volume 2 - 383
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53	05	05	C1300J	C-130J Mods	Volume 2 - 401
54	05	05	C13500	C-135	Volume 2 - 413
55	05	05	C135BO	OC-135B	Volume 2 - 431
56	05	05	CALL00	Compass Call Mods	Volume 2 - 437
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63	05	05	FBLOST	Family of Beyond Line-of-Sight Terminals	Volume 2 - 507
64	05	05	H00100	H-1	Volume 2 - 515
65	05	05	H06000	H-60	Volume 2 - 517
66	05	05	HAWK00	RQ-4 Mods	Volume 2 - 533
67	05	05	HCMC00	HC/MC-130 Modifications	Volume 2 - 593
68	05	05	OTHACF	Other Aircraft	Volume 2 - 639
69	05	05	PRDTB2	MQ-9 Mods	Volume 2 - 661
70	05	05	PRDTB3	MQ-9 UAS Payloads	Volume 2 - 695
71	05	05	V02200	CV-22 Mods	Volume 2 - 701

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75	07	01	T053A0	T-53A Trainer	Volume 1 - 201
76	07	02	B00200	B-2A	Volume 1 - 203
77	07	02	B002B0	B-2B	Volume 1 - 205
78	07	02	B05200	B-52	Volume 1 - 209
79	07	02	C01700	C-17A	Volume 1 - 213
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85	07	02	OTHACF	Other Aircraft	Volume 1 - 231
86	07	02	RQ4DIS	RQ-4 Post Production Charges	Volume 1 - 235
87	07	02	V02200	CV-22 Mods	Volume 1 - 245
88	07	03	000073	Industrial Responsiveness	Volume 1 - 247
89	07	03	C130J0	C-130J	Volume 1 - 251
90	07	04	000074	War Consumables	Volume 1 - 253
91	07	05	000075	Other Production Charges	Volume 1 - 259
93	07	05	11SPEC	Spectrum Relocation Fund	Volume 1 - 279
94	07	05	OTHACF	Other Aircraft	Volume 1 - 281

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B-2A	B00200	76	07	02	Volume 1 - 203
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C-12	C01200	49	05	05	Volume 2 - 375
C-130	C13000	52	05	05	Volume 2 - 385
C-130J	C130J0	4	02	03	Volume 1 - 17
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C-130J	C130J0	89	07	03	Volume 1 - 251
C-130J	C130J0	25	05	02	Volume 2 - 113
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C-130J Mods	C1300J	53	05	05	Volume 2 - 401

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C-17A	C01700	38	05	03	Volume 2 - 301
C-21	C02100	39	05	03	Volume 2 - 321
C-32A	C03200	40	05	03	Volume 2 - 327
C-37A	C03700	41	05	03	Volume 2 - 329
C-40	C04000	51	05	05	Volume 2 - 383
C-5	C00500	36	05	03	Volume 2 - 281
C-5M	C005M0	37	05	03	Volume 2 - 299
CV-22 (MYP)	V022A0	13	04	01	Volume 1 - 79
CV-22 Mods	V02200	87	07	02	Volume 1 - 245
CV-22 Mods	V02200	71	05	05	Volume 2 - 701
Civil Air Patrol A/C	CAPAC0	14	04	05	Volume 1 - 89
Combat Rescue Helicopter	H060WH	12	04	01	Volume 1 - 71
Compass Call Mods	CALL00	16	04	05	Volume 1 - 109
Compass Call Mods	CALL00	56	05	05	Volume 2 - 437
E-3	E00300	59	05	05	Volume 2 - 469
E-4	E00400	60	05	05	Volume 2 - 481
E-8	E00800	61	05	05	Volume 2 - 493

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F-15	F01500	26	05	02	Volume 2 - 115
F-15 EPAW	F15EWS	32	05	02	Volume 2 - 257
F-16	F0160P	83	07	02	Volume 1 - 223
F-16	F01600	27	05	02	Volume 2 - 157
F-16	F0160P	28	05	02	Volume 2 - 181
F-22A	F02200	84	07	02	Volume 1 - 227
F-22A	F02200	29	05	02	Volume 2 - 183
F-22A, Advance Procurement	F02200	30	05	02	Volume 2 - 231
F-35	ATA000	1	01	03	Volume 1 - 1
F-35, Advance Procurement	ATA000	2	01	03	Volume 1 - 11
F-35 Modifications	F03500	31	05	02	Volume 2 - 235
Family of Beyond Line-of-Sight Terminals	FBLOST	63	05	05	Volume 2 - 507
Glider Mods	GLID00	43	05	04	Volume 2 - 333
H-1	H00100	64	05	05	Volume 2 - 515
H-60	H06000	65	05	05	Volume 2 - 517
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HC-130J, Advance Procurement	C130JH	8	02	03	Volume 1 - 49
HC/MC-130 Modifications	HCMC00	67	05	05	Volume 2 - 593

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Industrial Responsiveness	000073	88	07	03	Volume 1 - 247
Initial Spares/Repair Parts	000999	72	06	10	Volume 1 - 155
KC-10A (ATCA)	C01000	48	05	05	Volume 2 - 369
KC-46A Tanker	KC046A	5	02	02	Volume 1 - 27
KC-46A Tanker	KC046A	35	05	02	Volume 2 - 275
Large Aircraft Infrared Countermeasures	LAIRCM	23	05	01	Volume 2 - 83
MC-130J	C130JM	9	02	03	Volume 1 - 53
MC-130J, Advance Procurement	C130JM	10	02	03	Volume 1 - 63
MQ-9	PRDTB1	18	04	05	Volume 1 - 129
MQ-9 Mods	PRDTB2	69	05	05	Volume 2 - 661
MQ-9 UAS Payloads	PRDTB3	70	05	05	Volume 2 - 695
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Other Aircraft	OTHACF	85	07	02	Volume 1 - 231
Other Aircraft	OTHACF	94	07	05	Volume 1 - 281
Other Aircraft	OTHACF	68	05	05	Volume 2 - 639
Other Production Charges	75	74	07	01	Volume 1 - 197
Other Production Charges	000075	91	07	05	Volume 1 - 259
RC-135	DARP01	80	07	02	Volume 1 - 217

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RQ-20B Puma	Q020BR	19	04	05	Volume 1 - 151
RQ-4	HAEUAV	17	04	05	Volume 1 - 119
RQ-4 Mods	HAWK00	66	05	05	Volume 2 - 533
RQ-4 Post Production Charges	RQ4DIS	86	07	02	Volume 1 - 235
Spectrum Relocation Fund	11SPEC	93	07	05	Volume 1 - 279
T-1	T00100	45	05	04	Volume 2 - 341
T-38	T03800	46	05	04	Volume 2 - 347
T-53A Trainer	T053A0	75	07	01	Volume 1 - 201
T-6	JPAT00	44	05	04	Volume 2 - 335
Target Drones	10TRGT	15	04	05	Volume 1 - 91
U-2 Mods	11U200	47	05	05	Volume 2 - 363
UH-1N Replacement	H0106O	11	04	01	Volume 1 - 67
VC-25A Mod	C02500	50	05	05	Volume 2 - 377
War Consumables	000074	90	07	04	Volume 1 - 253
combat flight inspection (CFIN)	CFIN00	57	05	05	Volume 2 - 449

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Exhibit P-1M, Procurement Programs - Modification Summary
(Listing by Model)

Lookup Matrix by Model

Model:	B-2	
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
110031	B-2 Trainer System Upgrade	No
110032	LINK 16/CID/IFR	No
110035	LOW OBSERVABLE SIGNATURE AND SUPPORTABILITY MODS	No
110043	B-2 Adaptable Communications Suite (ACS)	No
110054	B-2 Flex Strike Phase 1	No
110056	B61-12 Integration	No
110057	MGUE	No
8882	Common Very Low Frequency Terminal	No
1	B-2 Low Cost Engine Modifications	No
2	Low Cost Modifications	No

Model:	B-2A	
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
110061	IFF Mode 5/S/ADS-B Out	No
110062	Crash Survivable Memory Unit (CSMU)	No
110064	Rotary Launcher Assembly (RLA) Service Life Extension Program	No
110065	B-2 GBU-57 MOP Integration	No

Model:	B-1B	
Modification P-40a Aggregated Items Title:	B-1B	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
4291	B-1 TRAINING SUPPORT	No
8423	B-1 Link 16 Crypto	No
92294	LAPTOP CONTROLLED TARGETING POD	No
92318	BRU-56	No
99999X	Low Cost Modifications	No
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
4280	Fully Integrated Data Links	No
4284	CITS UPGRADE	No
8971	VERTICAL SITUATION DISPLAYS	No

Model:	F101	
Modification P-40a Aggregated Items Title:	B-1B	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
92299	F-101 Engine SLEP	No

Model:	B-1	
Modification P-40a Aggregated Items Title:	B-1B	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		

Model:	B-1	
Modification P-40a Aggregated Items Title:	**B-1B**	
Item Number	**Item Title**	**Applies to Multiple Models**
92314	MIDS-JTRS	No
92315	Fully Integrated Targeting Pod	No
92316	Radio Crypto Compliance	No
92317	IFF Mode 5/S ADS-B	No
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
8674	ATP upgrade Legacy to SE	Yes
8675	ATP-SE Technology Insertion	Yes

Model:	B-52H	
Modification P-40a Aggregated Items Title:	**B-52**	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
3265	B-52 Anti-Skid Replacement	No
6885	AETC Trainers (B-52)	No
6889	Bomber Tactical Data link	No
6890	B-52 Radar Modernization	No
6893	GPS-IU Replacement	No
6895	Advanced Targeting Pod MFCD	No
6896	B-52 VLF/LF Modernization	No
99999X	B-52 Low Cost Mods	No

Model:	B-52H	
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
3310	B-52 Combat Network Communications Technology	No
6884	B-52 Internal Weapons Bay Upgrade	No
6894	B-52 Crypto Modernization	No

Model:	B-52	
Modification P-40a Aggregated Items Title:	**B-52**	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
6891	B-52 WST AR Upgrade Trainer	No
6892	B-52 Low Cost Improvements	No
6897	B-52 Re-engine	No
9710	Airspace Compliance	No
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
8674	ATP upgrade Legacy to SE	Yes
8675	ATP-SE Technology Insertion	Yes

Model:	C-130	
Modification P-40a Aggregated Items Title:	**Large Aircraft Infrared Countermeasures**	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
8629C130	LARGE AIRCRAFT INFRARED COUNTERMEASURES C-130	No

Model:	C-130	
Modification P-40a Aggregated Items Title:	C-130	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
99999M	MISC SIMULATOR UPDATES	No
99999S	SERVICE BULLETINS	No
99999X	Low Cost Modifications	No

Model:	C130J	
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
1	LARGE AIRCRAFT INFRARED COUNTERMEASURES C-130J	No

Model:	C-17	
Modification P-40a Aggregated Items Title:	C-17A	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
_2000	Pylon Stub FFLZ, FF, Translating Fairing	No
_2590	ELT Frequency Change	No
1508	IFF GATM	No
6403	Filter Fire Mitigation	No
9741	Beyond Line of Sight (BLOS) Comm Mod	No
9742	C-17 Simulator Lateral Motion Maneuver Enhancement	No
9743	Beyond Line of Sight (BLOS) Aero I/H	No
9745	C-17 Real Time In the Cockpit (RTIC)	No

Model:	C-17	
Modification P-40a Aggregated Items Title:	**C-17A**	
Item Number	**Item Title**	**Applies to Multiple Models**
9746	C-17 Weapon System Trainer (WST)	No
9747	C-17 Training System (Other Mods)	No
99999X	Low Cost Modifications	No
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
2	LARGE AIRCRAFT INFRARED COUNTERMEASURES C-17	No
3080	Replacement Heads Up Display (RHUD)	No
2901	Automatic Dependent Surveillance - Broadcast Out (ADS-B Out)	No
9740	Fixed Installation Satellite Antenna (FISA)	No
9744	C-17 Visual System Field of View	No

Model:	C-5B	
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
3	LARGE AIRCRAFT INFRARED COUNTERMEASURES C-5	Yes

Model:	C-5C	
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
3	LARGE AIRCRAFT INFRARED COUNTERMEASURES C-5	Yes

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Exhibit P-1M, Procurement Programs - Modification Summary
(Listing by Model)

Model:	C-5M	
Modification P-40a Aggregated Items Title:	C-5	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
99999X	Low Cost Modifications	No
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
3	LARGE AIRCRAFT INFRARED COUNTERMEASURES C-5	Yes
8966	C-5 Mission Systems Equipment- Lavatory	No
8967	Mission Computer and Weather Radar	No
8968	C-5M Communication Navigation Surveillance/Air Traffic Management (CNS/ATM)	No

Model:	A-10C	
Modification P-40a Aggregated Items Title:	A-10	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
7856	MODE S/5	No

Model:	A-10	
Modification P-40a Aggregated Items Title:	A-10	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
9601	ONBOARD OXYGEN GENERATING SYSTEM (OBOGS)	No
9806	A-10 Helmet Mounted Cueing System	No
9808	Covert/Overt Landing Light Requirement (COLA)	No

Model:	A-10	
Modification P-40a Aggregated Items Title:	A-10	
Item Number	**Item Title**	**Applies to Multiple Models**
9810	LARS-CSEL	No
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
9804	A-10 Wing Replacement Program	No
9809	ADS-B Out	No
8674	ATP upgrade Legacy to SE	Yes
8675	ATP-SE Technology Insertion	Yes

Model:	A01000A	
Modification P-40a Aggregated Items Title:	A-10	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
9811	A-10 J-Hook System	No
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
9816	A-10 Conversion Fuel Tanks	No

Model:	C-130J	
Modification P-40a Aggregated Items Title:	C-130J	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
5222	5222	No

Model:	C-130J	
Modification P-40a Aggregated Items Title:	C-130J Mods	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
_2612	Avionics System and Structural Modifications	No
_5296	Wind Gust Brake	No
99999X	Low Cost Modifications	No
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
5222	BLOCK 8.1	No
8646	C-130J Center Wing Replacement	No

Model:	F-15C	
Modification P-40a Aggregated Items Title:	F-15	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
1209	F-15 C/D Flight Data Recorder (FDR)	Yes
8794	F-15C/D Beyond Line Of Sight Communications	No
8797	F-15C Passive Attack Sensor System	No
8798	5th to 4th Gen Gateway	Yes
8803	F-15 C/D/MUOS	No
8805	F-15 C/D SLEP Wings	Yes
8808	F-15 C/D ADS-B	Yes
8815	F-15C Simulator Upgrade	No
8816	F-15C/D APG-63(V)3 Common Config	Yes

Model:	F-15C	
Modification P-40a Aggregated Items Title:	**F-15**	
Item Number	**Item Title**	**Applies to Multiple Models**
99999X	Low Cost Modifications	Yes
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
1205	:Advanced Display Core Processor, ADCP II-C	Yes
1206	F-15C Infrared Search and Track (IRST)	Yes
6158	F-15C/D APG-63(V)3 radar upgrade	Yes
8754	F-15C/D IFF Mode 5	Yes
8755	F-15E IFF MODE 5	Yes
8799	F-15C MIDS JTRS	No
8801	F-15 C/D SLEP Longerons	Yes
8674	ATP upgrade Legacy to SE	Yes
8675	ATP-SE Technology Insertion	Yes

Model:	F-15D	
Modification P-40a Aggregated Items Title:	**F-15**	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
1209	F-15 C/D Flight Data Recorder (FDR)	Yes
8798	5th to 4th Gen Gateway	Yes
8805	F-15 C/D SLEP Wings	Yes
8808	F-15 C/D ADS-B	Yes
8816	F-15C/D APG-63(V)3 Common Config	Yes

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Model:	F-15D	
Modification P-40a Aggregated Items Title:	F-15	
Item Number	**Item Title**	**Applies to Multiple Models**
99999X	Low Cost Modifications	Yes
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
1205	:Advanced Display Core Processor, ADCP II-C	Yes
1206	F-15C Infrared Search and Track (IRST)	Yes
6158	F-15C/D APG-63(V)3 radar upgrade	Yes
8754	F-15C/D IFF Mode 5	Yes
8755	F-15E IFF MODE 5	Yes
8801	F-15 C/D SLEP Longerons	Yes

Model:	F-15E	
Modification P-40a Aggregated Items Title:	F-15	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
1210	F-15E Flight Data Recorder (FDR)	No
8353	F-15E -JOINT HELMET-MOUNTED CUEING SYSTEM	No
8662	AETC MTD UPGRADES-FIELD TRAINING DETACHMENTS	No
8804	F-15 F-15 E/MUOS	No
8809	F-15E ADS-B	No
8811	F-15E SATCOM UON	No
8812	F-15 E Integrated Aircrew Trainer	No
99999U	LOW COST RETROFIT MODS	No

Model:	F-15E	
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
1202	F-15E Radar Modernization Program APG-82(V)1	No
1	Advanced Display Core Processor, ADCP II-E	No
8755	F-15E IFF MODE 5	Yes
8800	F-15E MIDS JTRS	No
8810	F-15E APG-82(V)1 Common Config	No
8795	EPAWSS-E	No
8674	ATP upgrade Legacy to SE	Yes
8675	ATP-SE Technology Insertion	Yes

Model:	F15CD	
Modification P-40a Aggregated Items Title:	**F-15**	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
8806	F-15 C/D Cabin Pressure Indicator	No

Model:	F15E	
Modification P-40a Aggregated Items Title:	**F-15**	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
8807	F-15 E Cabin Pressure Indicator	No

Model:	F-15A	
Modification P-40a Aggregated Items Title:	F-15	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
99999X	Low Cost Modifications	Yes

Model:	F-15B	
Modification P-40a Aggregated Items Title:	F-15	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
99999X	Low Cost Modifications	Yes

Model:	F-16	
Modification P-40a Aggregated Items Title:	F-16	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
602148	MMC and Display Generator Upgrade	No
633030	Aggressors Update	No
633041	Anti Jam	No
633042	Missile Warning Systems	No
661652	Link 16 Crypto	No
694050	AESA Radars	No
704050	Digital Radar Warning Receiver (RWR)	No
8662	AETC MTD UPGRADES-FIELD TRAINING DETACHMENTS	No
866250	F-16 TRAINING SYSTEMS	No

Model:	F-16	
Modification P-40a Aggregated Items Title:	**F-16**	
Item Number	**Item Title**	**Applies to Multiple Models**
99999X	Low Cost Modifications	No
Modification P-40a Aggregated Items Title:	**Other Aircraft**	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
8669	Full Combat Mission Training	No
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
602600	F-16 LEGACY STRUCTURAL SLEP	No
618250	Comm Suite Upgrade	No
633031	HFLCC AGCAS	No
633032	ADS-B Out	No
661653	MIDS-JTRS	No
866251	Full Combat Mission Training	No
8674	ATP upgrade Legacy to SE	Yes
8675	ATP-SE Technology Insertion	Yes

Model:	F-22	
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
1	COMMON CONFIGURATION	No
2	INCREMENT 3.1	No
3	Reliability and Maintainability Program	No

Model: **F-22**

P-3a Individual Modifications

Modification Number	Modification Title	Applies to Multiple Models
4	Helmet Mounted Display and Cueing System (HMDCS)	No
5	TACLink 16	No
6	F119 Engine Modifications	No
7	Structures Retrofit Plan	No
8	Trainers Modernization	No
9	Crypto Modernization	No
10	Tactical Mandates	No
11	Mid-Life Updates	No
12	Sensor Enhancement	No
13	M-Code	No
14	Pylon	No
11100	INCREMENT 3.2B	No

Model: **F-35A**

P-3a Individual Modifications

Modification Number	Modification Title	Applies to Multiple Models
1	Block 3i LRIP 2-5 Upgrade	No
2	Block 3F LRIP 2-5 Upgrade	No
3	Block 3F LRIP 6-8 Upgrade	No
4	Concurrency	No
5	Correction of Deficiencies	No

Model:	KC-46	
Modification P-40a Aggregated Items Title:	KC-46A Tanker	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
4601	R&M Safety Mods	No
4602	Pegasus Combat Capability	No
99999X	Low Cost Modifications	No
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
1	Airworthiness Directives	No

Model:	C-21A	
Modification P-40a Aggregated Items Title:	C-21	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
99999S	SERVICE BULLETINS	No
99999X	Low Cost Modifications	No
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
1100	Avionics Upgrades and FAA Mandates	No

Model:	T-6A	
Modification P-40a Aggregated Items Title:	T-6	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		

Model:	T-6A	
Modification P-40a Aggregated Items Title:	T-6	
Item Number	**Item Title**	**Applies to Multiple Models**
9871	COCKPIT UPGRADES	No
9873	Canopy Fracture Initiation System	No
9878	Aircrew Training Device (ATD) Modernization	No
9890	Controlled Flight Into Terrain Avoidance	No
99999X	Low Cost Modifications	No
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
9877	Avionics Upgrades FAA Compliance	No

Model:	T-1A	
Modification P-40a Aggregated Items Title:	T-1	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
99999X	Low Cost Modifications	No
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
8997	Avionics Modification	No

Model:	T03800	
Modification P-40a Aggregated Items Title:	T-38	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		

Model:	T03800	
Modification P-40a Aggregated Items Title:	T-38	
Item Number	**Item Title**	**Applies to Multiple Models**
6091	Talon Repair, Inspection and Maintenance	No
6093	T-38 Canopy	No

Model:	T-38	
Modification P-40a Aggregated Items Title:	T-38	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
99999A	LOW COST SAFETY MODIFICATIONS	No
99999X	Low Cost Modifications	No
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
6088	Pacer Classic III	No
6090	T-38 Avionics	No
6092	T-38 A/B ADS-B Out	No

Model:	U-2	
Modification P-40a Aggregated Items Title:	U-2 Mods	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
4496	ASARS-2B Procurement for U-2	No

Model:	U-2	
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
4494	U-2 Mod	No

Model:	KC-10	
Modification P-40a Aggregated Items Title:	**KC-10A (ATCA)**	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
7732	Simulator Lateral Motion Maneuver Enhancement	No
99999A	LOW COST SAFETY MODIFICATIONS	No
99999S	SERVICE BULLETINS	No
99999X	Low Cost Modifications	No
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
7733	KC-10 Mode 5	No

Model:	VC-25A	
Modification P-40a Aggregated Items Title:	**VC-25A Mod**	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
99999S	SERVICE BULLETINS	No
99999X	Low Cost Modifications	No

Model:	VC-25A	
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
9715	VC-25 Block Upgrade	No

Model:	C-130H	
Modification P-40a Aggregated Items Title:	**C-130**	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
3773	C-130 8-Bladed Propeller Upgrade	No
8221	C-130 ALR-69A Radar Warning Receiver (RWR)	No
8518	C-130H Avionics Modernization Program (AMP) Increment 2	No
8578	C-130 SYSTEMS/STRUCTURE (PHASE II MODERNIZATION)	Yes
9139	MOD V IFF	No
9149	C-130 Aux Hyd Pump	Yes
92308	T-56 3.5 Engine Mod	No
92311	Electronic Propeller Control System (EPCS)	No
92312	In-Flight Propeller Balancing System (IPBS)	No
92315	C-130H Simulator	No
99999A	LOW COST SAFETY MODIFICATIONS	No
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
92302	C-130H Avionics Modernization Program (AMP) Increment 1	No

Model:	MC-130H	
Modification P-40a Aggregated Items Title:	C-130	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
8578	C-130 SYSTEMS/STRUCTURE (PHASE II MODERNIZATION)	Yes
9149	C-130 Aux Hyd Pump	Yes
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
92316	AFSOC C-130 Mods	No

Model:	HC-130P	
Modification P-40a Aggregated Items Title:	C-130	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
8578	C-130 SYSTEMS/STRUCTURE (PHASE II MODERNIZATION)	Yes

Model:	HC-130N	
Modification P-40a Aggregated Items Title:	C-130	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
8578	C-130 SYSTEMS/STRUCTURE (PHASE II MODERNIZATION)	Yes

Model:	EC-130H	
Modification P-40a Aggregated Items Title:	C-130	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
8578	C-130 SYSTEMS/STRUCTURE (PHASE II MODERNIZATION)	Yes
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
1001	COMPASS CALL	No

Model:	AC-130U	
Modification P-40a Aggregated Items Title:	C-130	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
8578	C-130 SYSTEMS/STRUCTURE (PHASE II MODERNIZATION)	Yes

Model:	MC-130W	
Modification P-40a Aggregated Items Title:	C-130	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
9149	C-130 Aux Hyd Pump	Yes

Model:	KC-135	
Modification P-40a Aggregated Items Title:	C-135	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		

Model:	KC-135	
Modification P-40a Aggregated Items Title:	**C-135**	
Item Number	**Item Title**	**Applies to Multiple Models**
9818	VOR/ILS ANTENNAE	No
9824	ADS-B	No
99999A	LOW COST SAFETY MODIFICATIONS	No
99999X	Low Cost Modifications	No
Modification P-40a Aggregated Items Title:	**Other Aircraft**	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
8670	MAF Training	No
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
8653	BLOCK 45	No
9826	Rudder Position Indicator (RPI)	No
9827	KC-135 AERO-I SATCOM replacement	No
9828	Real Time in the Cockpit (RTIC)	No
8735	DAS000 (ROBE)	Yes

Model:	OC-135	
Modification P-40a Aggregated Items Title:	**OC-135B**	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
1901	ADS-B	No

Model:	OC-135B	
Modification P-40a Aggregated Items Title:	OC-135B	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
99999X	Low Cost Modifications	No
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
1900	Digital Visual Imaging System (DVIS)	No

Model:	EC-37B	
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
1003	COMPASS CALL Baseline 3	No

Model:	RC-135S	
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
2504	COBRA BALL	Yes

Model:	TC-135W	
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
2504	COBRA BALL	Yes
4263	RIVET JOINT	Yes

Model:	RC-135V	
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
4263	RIVET JOINT	Yes

Model:	RC-135W	
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
4263	RIVET JOINT	Yes

Model:	RC-135U	
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
4265	COMBAT SENT	No

Model:	WC-135R	
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
4266	CONSTANT PHOENIX	No

Model:	E-3	
Modification P-40a Aggregated Items Title:	**E-3**	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
50002	Communications Networking Upgrade (CNU)	No
7225	NEXT GENERATION IDENTIFICATION FRIEND OR FOE (IFF)	No

Model:	E-3	
Modification P-40a Aggregated Items Title:	**E-3**	
Item Number	**Item Title**	**Applies to Multiple Models**
8662	AETC MTD UPGRADES-FIELD TRAINING DETACHMENTS	No
9707	RM&A Mod	No
9708	Virtual Warfare Center	No
9716	VERTICAL STABILIZER AND RUDDER	No
9719	Combat ID Diminishing Manufacturing Sources	No
99999XA	LOW COST MOD - AIRFRAME	No
99999XB	LOW COST MOD - AVIONICS & MISSION SYSTEMS	No
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
9717	ELECTRONIC PROTECTION	No
9718	IP-enabled Capability (IPEC)	No
1	BLOCK 40/45 BLOCK UPGRADE	No

Model:	E-3B	
Modification P-40a Aggregated Items Title:	**E-3**	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
50002T	AWACS ADS-B Acceleration	Yes
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
9709	E-3 DRAGON	Yes

Model:	E-3C	
Modification P-40a Aggregated Items Title:	E-3	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
50002T	AWACS ADS-B Acceleration	Yes
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
9709	E-3 DRAGON	Yes

Model:	E-4B	
Modification P-40a Aggregated Items Title:	E-4	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
3411	Survivable SHF	No
9709F	CNS/ATM(ADS-B OUT)	No
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
1	AEHF Compatible Terminal/PNVC	No
4409	Low Frequency Transmit System (LFTS)	No
2	SERVICE BULLETINS	No

Model:	E-4	
Modification P-40a Aggregated Items Title:	E-4	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		

Model:	E-4	
Modification P-40a Aggregated Items Title:	**E-4**	
Item Number	**Item Title**	**Applies to Multiple Models**
4380	MUOS	No
99999X	Low Cost Modifications	No
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
1	Family of Beyond Line-of-Sight Terminals	Yes

Model:	E-8C	
Modification P-40a Aggregated Items Title:	**E-8**	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
38198	Prime Mission Equipment - Diminishing Manufacturing Sources	No
38201	COMBINED ENTERPRISE REGIONAL INFORMATION EXHANGE SYSTEM (CENTRIXs)	No
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
38199	Emergency Locator Transmitter (ELT)	No

Model:	E-6	
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
1	Family of Beyond Line-of-Sight Terminals	Yes

Model:	HH-60G	
Modification P-40a Aggregated Items Title:	H-60	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
8254	ALTITUDE HOLD AND HOVER SYSTEM (AHHS)	No
8564	Control Display Unit (CDU)	No
8565	Navigation System Upgrade (NSU)	No
8844	Multi-function Color Display	No
8850	MODE 5	No
8851	Gun Replacement	No
8852	CSAR Avionics/Electrical Upgrade	No
8854	HH-60 OLR Mission Modifications	No
8856	Block 162	No
8857	Rotor Brake	No
8862	HH-60G Communication Suite Control Integration	No
99999X	Low Cost Modifications	No
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
8853	DEFENSIVE SYSTEM UPGRADE	No
8859	DVE Sensor	No
8861	HH-60 DATALINKS	No

Model: **RQ-4**

P-3a Individual Modifications

Modification Number	Modification Title	Applies to Multiple Models
470001	GH Aircraft Mods	No
470003	GH Ground Station Mods	No
470008	Enhanced Weather Capability	No
470009	ASIP Increment I	No
470010	SAR	No
470011	ASIP Install/Calibration	No
470012	MODE 5/ADS-B	No
470013	Sensor Enhancements	No
470015	Ice Protection System	No
470016	ADC/AFS Refresh	No
470018	CSMP	No
470019	Communication Interoperability/Enhancements	No
470020	EISS Enhancements	No
470021	ASIP Increment II	No
1	Low Cost Modifications	No

Model: **HC-130J**

P-3a Individual Modifications

Modification Number	Modification Title	Applies to Multiple Models
5222	HC/MC-130J Block 8.1	Yes
8634	HC-130J Common Configuration	No
8635	HC-130J Personnel Locator System	No

Model: **HC-130J**

P-3a Individual Modifications

Modification Number	Modification Title	Applies to Multiple Models
8636	HC-130J Situational Awareness	No
8639	Wireless Intercom	No
8640	HC-130J Countermeasures Dispenser System Rapid Dispense	No
8650	Advanced Threat Warning System (ATW)	No
8652	(RFCM) Radio Frequency Countermeasures	No
8658	Paratroop Door	No
1	Low Cost Modifications	Yes

Model: **MC-130J**

P-3a Individual Modifications

Modification Number	Modification Title	Applies to Multiple Models
5222	HC/MC-130J Block 8.1	Yes
8632	MC-130J Increment 2	No
8642	(AbMN) Air borne Mission Networking	No
8648	ADS-B out Acceleration	No
8659	Broadband Antenna	No
1	Low Cost Modifications	Yes

Model:	AC-130J	
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
5222	HC/MC-130J Block 8.1	Yes

Model:	E-9	
Modification P-40a Aggregated Items Title:	**Other Aircraft**	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
99999J	MISCELLANEOUS LOW COSTS MODS (Combat Developments)	No

Model:	HH-60U	
Modification P-40a Aggregated Items Title:	**Other Aircraft**	
Item Number	**Item Title**	**Applies to Multiple Models**
Uncategorized		
HH-60U	HH-60U	No

Model:	MULTI	
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
8733	Battlefield ABN Comm Node (BACN)	No

Model:	KC-46A	
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
8735	DAS000 (ROBE)	Yes

Model:	MQ-9	
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
9151	Block 5	No
9152	MQ-9 Field	No
9154	Lynx SAR	No
9155	GCS Blk 30	No
9159	R&M enhancements	No
9164	Extended Range MQ-9	No
9167	MQ-9 Upgrade	No
9168	Dismount Radar	No
1	MQ-9 Low Cost Mods	No
9169	Gorgon Stare	No

Model:	CV-22	
P-3a Individual Modifications		
Modification Number	**Modification Title**	**Applies to Multiple Models**
8790	Block 20 Upgrade	No
1	Low Cost Modifications	No

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Exhibit P-1M, Procurement Programs - Modification Summary
(Funding for Modifications)

Funding ($ M)

Modification P-40a Item Title P-3a Modification Title	PYS	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Exhibit P-40a										
B-1 TRAINING SUPPORT	2.543	0.438	0.448	0.450	-	0.450	0.458	0.467	0.476	0.485
B-1 Link 16 Crypto	1.234	1.380	0.100	-	-	-	-	-	-	-
LAPTOP CONTROLLED TARGETING POD	76.971	0.200	6.401	0.397	4.000	4.397	0.397	0.397	0.198	0.202
F-101 Engine SLEP	161.778	34.000	34.000	-	-	-	-	-	-	-
MIDS-JTRS	-	-	-	3.719	-	3.719	11.802	16.084	8.925	-
Fully Integrated Targeting Pod	-	-	-	-	-	-	21.228	25.099	3.967	-
Radio Crypto Compliance	-	-	-	1.181	-	1.181	6.510	14.717	15.380	15.659
IFF Mode 5/S ADS-B	-	-	-	1.300	-	1.300	9.153	12.689	14.348	14.609
BRU-56	-	-	-	-	-	-	2.669	30.331	41.742	42.500
Low Cost Modifications	5.073	0.100	1.400	0.198	-	0.198	0.249	1.487	0.099	0.101
B-52 Anti-Skid Replacement	18.616	1.085	0.909	0.916	-	0.916	0.932	0.949	-	-
AETC Trainers (B-52)	4.594	2.406	2.460	2.480	-	2.480	2.524	2.568	2.620	2.668
Bomber Tactical Data link	-	-	-	2.976	-	2.976	15.925	30.214	24.917	25.372
B-52 Radar Modernization	-	-	-	-	-	-	5.809	12.995	13.256	90.858
B-52 WST AR Upgrade Trainer	-	-	1.809	-	-	-	10.998	-	-	-
B-52 Low Cost Improvements	-	2.331	2.378	2.362	-	2.362	2.412	2.461	2.511	2.557
GPS-IU Replacement	-	-	-	-	-	-	25.440	23.904	11.079	11.280
Advanced Targeting Pod MFCD	-	-	-	-	-	-	-	-	22.907	16.216
B-52 VLF/LF Modernization	-	-	-	-	-	-	-	8.410	33.557	57.852
B-52 Re-engine	-	-	-	-	-	-	-	-	43.632	505.821

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Exhibit P-1M, Procurement Programs - Modification Summary
(Funding for Modifications)

Modification P-40a Item Title P-3a Modification Title	PYS	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Airspace Compliance	-	-	-	1.954	-	1.954	19.694	16.374	3.570	3.636
B-52 Low Cost Mods	1.480	0.439	0.450	0.452	-	0.452	0.460	0.470	0.480	0.489
LARGE AIRCRAFT INFRARED COUNTERMEASURES C-130	-	14.301	-	-	-	-	-	-	-	-
MODE S/5	-	11.000	0.000	0.000	-	0.000	0.000	0.000	-	-
ONBOARD OXYGEN GENERATING SYSTEM (OBOGS)	-	16.150	-	-	-	-	-	-	-	-
A-10 Helmet Mounted Cueing System	-	6.500	0.000	-	0.900	0.900	-	-	-	-
Covert/Overt Landing Light Requirement (COLA)	-	0.850	-	-	-	-	-	-	-	-
LARS-CSEL	4.000	27.000	-	-	-	-	-	-	-	-
A-10 J-Hook System	-	-	-	-	0.750	0.750	-	-	-	-
5222	-	-	-	10.831	-	10.831	12.158	12.392	12.667	12.897
F-15 C/D Flight Data Recorder (FDR)	24.240	0.265	0.303	0.020	-	0.020	-	-	-	-
F-15E Flight Data Recorder (FDR)	138.240	1.785	2.421	0.027	-	0.027	-	-	-	-
F-15E -JOINT HELMET-MOUNTED CUEING SYSTEM	102.724	-	1.200	0.600	-	0.600	-	-	-	-
AETC MTD UPGRADES-FIELD TRAINING DETACHMENTS	6.068	0.103	1.119	1.128	-	1.128	1.147	1.167	1.190	1.212
F-15C/D Beyond Line Of Sight Communications	54.339	-	0.088	-	-	-	-	-	-	-
F-15C Passive Attack Sensor System	27.873	0.704	-	-	-	-	-	-	-	-
5th to 4th Gen Gateway	-	-	0.844	-	-	-	-	-	-	14.194
F-15 C/D/MUOS	-	-	-	-	-	-	0.630	8.130	20.450	5.182
F-15 F-15 E/MUOS	-	-	-	-	-	-	0.630	8.050	8.680	30.952
F-15 C/D SLEP Wings	-	-	-	-	-	-	99.094	4.015	-	-
F-15 C/D Cabin Pressure Indicator	1.977	-	0.076	0.120	-	0.120	-	-	-	-
F-15 E Cabin Pressure Indicator	3.332	-	0.126	0.180	-	0.180	-	-	-	-

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Exhibit P-1M, Procurement Programs - Modification Summary
(Funding for Modifications)

Modification P-40a Item Title P-3a Modification Title	PYS	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
F-15 C/D ADS-B	-	-	-	-	-	-	-	4.570	12.374	-
F-15E ADS-B	-	-	-	-	-	-	-	4.565	12.379	11.507
F-15E SATCOM UON	10.300	7.400	0.000	0.000	-	0.000	-	-	-	-
F-15 E Integrated Aircrew Trainer	-	-	-	4.963	-	4.963	-	-	-	-
F-15C Simulator Upgrade	-	-	15.000	0.000	0.000	0.000	0.000	-	-	-
F-15C/D APG-63(V)3 Common Config	-	-	-	4.326	-	4.326	4.352	1.526	-	-
LOW COST RETROFIT MODS	5.763	0.001	0.001	0.001	-	0.001	0.001	0.001	-	-
Low Cost Modifications	5.759	0.028	0.001	0.001	-	0.001	0.001	0.001	-	-
MMC and Display Generator Upgrade	-	-	-	-	-	-	37.153	80.833	80.851	82.320
Aggressors Update	-	6.925	5.306	1.154	-	1.154	-	-	-	-
Anti Jam	-	5.000	-	-	-	-	-	-	-	-
Missile Warning Systems	-	12.000	-	-	-	-	-	-	-	-
Link 16 Crypto	3.200	6.447	-	-	-	-	-	-	-	-
AESA Radars	-	216.496	2.873	0.899	-	0.899	16.655	211.201	321.640	322.543
Digital Radar Warning Receiver (RWR)	-	-	-	-	-	-	34.315	178.199	16.037	19.160
AETC MTD UPGRADES-FIELD TRAINING DETACHMENTS	98.541	6.996	5.291	5.335	-	5.335	5.431	5.529	5.639	5.742
F-16 TRAINING SYSTEMS	3.250	2.875	3.949	4.280	-	4.280	4.342	4.221	4.458	4.539
Low Cost Modifications	11.339	-	0.003	2.000	-	2.000	1.534	2.000	0.772	0.785
R&M Safety Mods	-	-	-	-	-	-	16.993	43.741	26.134	21.757
Pegasus Combat Capability	-	-	-	-	-	-	1.752	1.890	27.632	29.197
Low Cost Modifications	-	-	-	2.000	-	2.000	2.000	2.000	2.000	2.000
Low Cost Modifications	-	0.000	0.000	0.000	0.000	0.000	0.000	1.999	0.000	0.000

Modification P-40a Item Title P-3a Modification Title	PYS	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Pylon Stub FFLZ, FF, Translating Fairing	82.201	7.496	3.297	1.515	-	1.515	1.187	1.618	-	-
ELT Frequency Change	3.062	-	2.350	-	-	-	-	-	-	-
IFF GATM	86.594	9.859	50.723	4.743	-	4.743	1.397	-	-	-
Filter Fire Mitigation	-	-	-	-	-	-	0.389	1.299	2.190	2.693
Beyond Line of Sight (BLOS) Comm Mod	-	-	-	0.598	-	0.598	14.821	19.670	27.398	28.311
C-17 Simulator Lateral Motion Maneuver Enhancement	-	-	-	2.472	-	2.472	4.166	3.321	-	-
Beyond Line of Sight (BLOS) Aero I/H	-	-	-	0.000	-	0.000	9.918	23.374	26.941	34.933
C-17 Real Time In the Cockpit (RTIC)	-	-	26.850	0.000	-	0.000	-	-	-	-
C-17 Weapon System Trainer (WST)	-	-	-	-	-	-	45.422	-	-	-
C-17 Training System (Other Mods)	-	-	-	12.435	-	12.435	3.600	0.500	-	-
Low Cost Modifications	3.117	0.100	0.302	0.100	-	0.100	0.100	0.100	0.100	0.100
SERVICE BULLETINS	0.254	0.143	0.133	0.104	-	0.104	0.106	0.109	0.098	0.098
Low Cost Modifications	0.113	0.110	0.110	0.110	-	0.110	0.110	0.111	0.126	0.130
COCKPIT UPGRADES	-	-	-	-	-	-	-	11.255	6.532	1.482
Canopy Fracture Initiation System	0.727	0.140	0.108	-	-	-	-	-	-	-
Aircrew Training Device (ATD) Modernization	13.337	12.625	9.369	2.579	-	2.579	8.458	15.494	4.121	5.218
Controlled Flight Into Terrain Avoidance	-	-	-	-	-	-	-	-	3.508	7.717
Low Cost Modifications	0.893	0.000	1.116	0.681	-	0.681	0.473	0.000	0.000	0.000
Low Cost Modifications	1.365	0.300	0.305	0.310	-	0.310	0.316	0.300	0.300	0.300
Talon Repair, Inspection and Maintenance	-	-	-	0.600	-	0.600	-	0.600	-	-
T-38 Canopy	-	-	-	-	-	-	1.589	1.589	1.589	1.589
LOW COST SAFETY MODIFICATIONS	0.029	0.000	0.005	0.005	-	0.005	0.005	0.005	0.005	0.005
Low Cost Modifications	0.031	0.000	0.006	0.006	-	0.006	0.006	0.006	0.006	0.006

Modification P-40a Item Title P-3a Modification Title	PYS	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
ASARS-2B Procurement for U-2	-	-	-	-	-	-	66.443	48.204	72.340	28.108
Simulator Lateral Motion Maneuver Enhancement	-	-	0.736	-	-	-	-	-	-	-
LOW COST SAFETY MODIFICATIONS	0.015	0.001	0.001	0.001	-	0.001	0.001	0.001	0.001	0.001
SERVICE BULLETINS	37.466	4.568	1.506	0.098	-	0.098	5.106	3.957	3.441	3.503
Low Cost Modifications	7.270	0.001	2.000	0.001	-	0.001	0.001	0.001	0.001	0.001
SERVICE BULLETINS	0.766	0.236	0.893	0.567	-	0.567	0.508	0.885	0.906	0.923
Low Cost Modifications	2.199	0.100	0.100	0.100	-	0.100	0.100	0.100	0.100	0.100
C-130 8-Bladed Propeller Upgrade	66.000	16.000	-	-	-	-	-	-	-	-
C-130 ALR-69A Radar Warning Receiver (RWR)	-	36.080	-	-	-	-	-	-	-	-
C-130H Avionics Modernization Program (AMP) Increment 2	-	-	-	0.000	-	0.000	0.000	61.297	164.524	229.971
C-130 SYSTEMS/STRUCTURE (PHASE II MODERNIZATION)	661.731	5.140	8.160	3.546	-	3.546	14.512	14.773	15.068	15.343
MOD V IFF	39.223	-	1.550	1.050	-	1.050	-	-	-	-
C-130 Aux Hyd Pump	14.639	0.328	0.522	-	-	-	-	-	-	-
T-56 3.5 Engine Mod	71.500	41.500	-	-	-	-	-	-	-	-
Electronic Propeller Control System (EPCS)	13.500	126.000	-	-	-	-	-	-	-	-
In-Flight Propeller Balancing System (IPBS)	1.500	1.500	-	-	-	-	-	-	-	-
C-130H Simulator	-	-	25.000	-	-	-	15.675	-	22.720	23.133
LOW COST SAFETY MODIFICATIONS	2.889	0.500	1.499	-	-	-	-	-	-	-
MISC SIMULATOR UPDATES	0.703	0.020	0.606	-	-	-	-	-	-	-
SERVICE BULLETINS	0.000	1.101	1.024	-	-	-	0.500	-	-	-
Low Cost Modifications	11.560	1.999	1.449	1.926	-	1.926	1.484	1.982	1.979	1.896
Avionics System and Structural Modifications	26.256	0.488	6.400	0.288	-	0.288	0.649	-	-	-

Modification P-40a Item Title P-3a Modification Title	PYS	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Wind Gust Brake	35.743	1.112	1.500	0.250	-	0.250	-	-	-	-
Low Cost Modifications	9.107	0.099	0.500	0.500	-	0.500	0.560	2.000	0.495	0.461
VOR/ILS ANTENNAE	9.230	0.162	-	0.001	-	0.001	0.001	0.001	0.001	0.001
ADS-B	-	-	5.000	3.200	-	3.200	-	-	-	-
LOW COST SAFETY MODIFICATIONS	0.025	0.025	0.025	0.025	-	0.025	0.025	0.025	0.025	0.025
Low Cost Modifications	9.092	1.901	1.111	1.995	-	1.995	1.995	1.995	1.995	1.995
ADS-B	-	-	2.991	-	-	-	-	-	-	-
Low Cost Modifications	-	0.000	-	0.000	-	0.000	0.100	0.100	0.100	-
Communications Networking Upgrade (CNU)	-	-	-	-	-	-	17.561	6.049	0.000	34.180
AWACS ADS-B Acceleration	-	-	-	-	-	-	2.035	1.059	0.000	0.000
NEXT GENERATION IDENTIFICATION FRIEND OR FOE (IFF)	54.580	2.253	-	-	-	-	-	-	-	-
AETC MTD UPGRADES-FIELD TRAINING DETACHMENTS	6.311	0.687	0.701	0.707	-	0.707	0.719	0.732	0.748	0.762
RM&A Mod	20.931	0.668	0.620	0.075	-	0.075	0.310	0.320	-	-
Virtual Warfare Center	-	-	9.439	-	-	-	-	-	-	-
VERTICAL STABILIZER AND RUDDER	2.617	0.287	0.135	0.018	-	0.018	-	-	-	-
Combat ID Diminishing Manufacturing Sources	-	-	-	0.000	-	0.000	7.937	22.709	36.988	37.660
LOW COST MOD - AIRFRAME	0.350	0.100	0.131	1.999	-	1.999	1.999	1.999	1.999	1.999
LOW COST MOD - AVIONICS & MISSION SYSTEMS	0.350	0.100	0.131	1.999	-	1.999	1.999	1.999	1.999	1.999
Survivable SHF	-	-	-	-	-	-	-	29.749	29.749	29.754
MUOS	-	-	-	0.000	-	0.000	5.700	2.400	-	-
CNS/ATM(ADS-B OUT)	0.520	4.720	4.860	0.000	-	0.000	-	-	-	-
Low Cost Modifications	6.422	1.990	1.938	1.990	-	1.990	1.990	1.990	1.990	1.990

Modification P-40a Item Title P-3a Modification Title	PYS	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Prime Mission Equipment - Diminishing Manufacturing Sources	123.684	28.944	10.732	-	-	-	-	-	-	-
COMBINED ENTERPRISE REGIONAL INFORMATION EXHANGE SYSTEM (CENTRIXs)	-	-	2.500	-	-	-	-	-	-	-
ALTITUDE HOLD AND HOVER SYSTEM (AHHS)	35.773	0.010	-	-	-	-	-	-	-	-
Control Display Unit (CDU)	20.624	0.210	10.800	0.110	-	0.110	-	-	-	-
Navigation System Upgrade (NSU)	58.372	3.190	2.720	1.210	-	1.210	1.210	-	-	-
Multi-function Color Display	35.232	1.259	3.330	3.480	-	3.480	2.608	-	-	-
MODE 5	13.803	8.620	7.354	2.485	-	2.485	1.560	-	-	-
Gun Replacement	20.220	5.174	-	-	-	-	-	-	-	-
CSAR Avionics/Electrical Upgrade	15.777	0.620	0.860	0.780	0.000	0.780	0.324	-	-	-
HH-60 OLR Mission Modifications	350.772	64.754	38.489	0.400	-	0.400	0.300	0.550	-	-
Block 162	43.929	1.336	3.125	4.030	-	4.030	4.080	4.660	2.000	1.550
Rotor Brake	3.000	0.010	-	-	-	-	-	-	-	-
HH-60G Communication Suite Control Integration	-	-	4.490	1.000	-	1.000	4.458	5.400	4.540	-
Low Cost Modifications	5.635	0.464	0.920	0.753	-	0.753	1.070	1.430	1.350	1.470
Full Combat Mission Training	60.833	1.694	13.877	-	-	-	-	-	-	-
MAF Training	7.197	25.317	1.172	0.000	-	0.000	24.902	16.527	0.099	0.101
MISCELLANEOUS LOW COSTS MODS (Combat Developments)	142.387	0.138	0.162	0.148	-	0.148	4.616	0.154	0.157	0.160
HH-60U	1.900	1.708	-	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Exhibit P-3a										
B-2 Trainer System Upgrade	35.402	0.428	9.082	7.800	0.000	7.800	7.938	8.080	8.242	8.392
LINK 16/CID/IFR	0.474	0.415	1.718	2.296	0.000	2.296	0.200	0.204	0.208	0.211

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LOW OBSERVABLE SIGNATURE AND SUPPORTABILITY MODS	43.151	4.953	8.454	13.489	0.000	13.489	9.607	19.878	20.276	20.645
B-2 Adaptable Communications Suite (ACS)	21.037	0.297	0.624	0.296	0.000	0.296	0.296	0.300	0.306	0.312
B-2 Flex Strike Phase 1	0.000	10.231	6.658	7.662	0.000	7.662	4.894	0.000	0.000	-
B61-12 Integration	0.000	0.000	27.514	0.000	0.000	0.000	0.000	0.000	-	-
MGUE	-	4.034	10.704	0.578	0.000	0.578	0.990	0.000	0.000	-
IFF Mode 5/S/ADS-B Out	0.000	0.000	0.000	0.000	0.000	0.000	1.984	7.239	15.020	15.294
Crash Survivable Memory Unit (CSMU)	0.000	0.000	0.000	0.000	0.000	0.000	2.480	0.793	1.601	1.631
Rotary Launcher Assembly (RLA) Service Life Extension Program	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	7.537	7.675
B-2 GBU-57 MOP Integration	0.000	0.000	20.032	19.787	0.000	19.787	0.000	0.000	0.000	-
Common Very Low Frequency Terminal	24.264	18.592	10.610	7.051	0.000	7.051	2.376	-	-	-
B-2 Low Cost Engine Modifications	18.186	0.000	0.718	0.723	0.000	0.723	0.736	0.751	0.766	0.780
Low Cost Modifications	19.878	0.000	0.613	0.619	0.000	0.619	0.630	0.641	0.673	0.666
Fully Integrated Data Links	314.515	56.773	50.032	16.338	0.000	16.338	16.202	11.596	0.404	0.412
CITS UPGRADE	88.381	14.637	15.993	11.271	0.000	11.271	2.752	0.793	0.109	0.111
VERTICAL SITUATION DISPLAYS	194.950	42.791	47.260	16.436	0.000	16.436	14.923	8.622	0.000	0.000
B-52 Combat Network Communications Technology	392.277	99.068	74.355	55.444	0.000	55.444	22.067	22.261	14.569	13.796
B-52 Internal Weapons Bay Upgrade	22.318	3.691	26.934	24.176	0.000	24.176	0.000	0.000	0.000	0.001
B-52 Crypto Modernization	-	0.000	0.000	14.759	0.000	14.759	17.722	21.659	22.093	22.495
LARGE AIRCRAFT INFRARED COUNTERMEASURES C-130J	96.749	24.718	4.046	0.000	53.335	53.335	0.000	0.000	0.000	0.000
LARGE AIRCRAFT INFRARED COUNTERMEASURES C-17	75.091	70.000	0.000	0.000	69.868	69.868	0.000	0.000	0.000	-

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LARGE AIRCRAFT INFRARED COUNTERMEASURES C-5	-	26.783	0.000	0.000	26.575	26.575	0.000	0.000	0.000	0.000
A-10 Wing Replacement Program	812.255	21.289	0.000	79.190	0.000	79.190	0.000	0.000	-	-
ADS-B Out	0.000	0.000	6.010	19.530	0.000	19.530	10.232	2.082	0.000	-
A-10 Conversion Fuel Tanks	-	0.000	0.000	0.000	8.700	8.700	0.000	0.000	0.000	0.000
F-15E Radar Modernization Program APG-82(V)1	1,035.191	129.496	229.764	199.627	0.000	199.627	200.425	296.936	92.559	94.244
Advanced Display Core Processor, ADCP II-E	0.000	3.765	50.477	37.340	0.000	37.340	44.357	70.627	74.483	75.842
:Advanced Display Core Processor, ADCP II-C	0.000	1.859	6.475	56.791	0.000	56.791	89.600	61.756	72.364	33.797
F-15C Infrared Search and Track (IRST)	-	0.000	55.133	61.889	0.000	61.889	34.533	121.077	35.615	20.918
F-15C/D APG-63(V)3 radar upgrade	1,359.205	0.000	16.723	90.524	0.000	90.524	23.681	40.540	42.909	3.769
F-15C/D IFF Mode 5	-	0.000	0.000	9.540	0.000	9.540	28.545	0.548	0.000	0.000
F-15E IFF MODE 5	28.035	0.000	7.976	15.725	0.000	15.725	4.470	0.520	0.000	0.000
F-15C MIDS JTRS	0.000	0.000	7.430	21.360	0.000	21.360	26.280	46.118	41.832	6.648
F-15E MIDS JTRS	0.000	0.000	13.823	19.040	0.000	19.040	27.844	36.018	40.259	19.962
F-15 C/D SLEP Longerons	-	0.000	7.023	5.900	0.000	5.900	24.500	31.520	32.100	32.678
F-15E APG-82(V)1 Common Config	0.000	0.000	1.190	19.007	0.000	19.007	12.625	24.012	4.967	5.056
F-16 LEGACY STRUCTURAL SLEP	0.000	3.517	18.127	36.676	0.000	36.676	56.542	98.909	105.540	115.909
Comm Suite Upgrade	0.000	0.000	45.916	20.968	0.000	20.968	94.849	68.941	47.309	48.169
HFLCC AGCAS	-	-	15.445	14.060	0.000	14.060	29.735	21.936	10.853	2.600
ADS-B Out	-	-	9.009	36.381	0.000	36.381	28.875	36.532	12.524	12.752
MIDS-JTRS	0.000	14.075	97.945	196.888	0.000	196.888	1.469	55.188	0.000	0.000
Full Combat Mission Training	-	0.000	0.000	5.671	0.000	5.671	1.960	1.994	2.034	2.071
COMMON CONFIGURATION	668.077	1.131	0.000	-	-	-	-	-	-	-

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INCREMENT 3.1	249.772	2.877	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-
Reliability and Maintainability Program	1,119.467	118.555	133.622	105.145	0.000	105.145	73.146	72.078	37.945	87.173
Helmet Mounted Display and Cueing System (HMDCS)	-	0.000	0.000	0.000	-	0.000	0.000	0.000	12.900	16.969
TACLink 16	-	-	15.000	94.914	0.000	94.914	77.600	107.400	74.700	7.500
F119 Engine Modifications	69.793	4.780	8.104	8.489	0.000	8.489	9.547	9.069	5.174	0.976
Structures Retrofit Plan	248.991	14.598	10.689	9.073	0.000	9.073	2.218	0.000	0.000	0.000
Trainers Modernization	84.543	4.067	9.215	12.329	0.000	12.329	11.920	14.492	15.607	16.025
Crypto Modernization	3.704	0.000	0.000	0.760	0.000	0.760	3.530	2.540	0.000	0.000
Tactical Mandates	-	-	-	20.000	0.000	20.000	0.000	34.800	35.900	31.900
Mid-Life Updates	-	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000
Sensor Enhancement	-	0.000	0.000	0.000	-	0.000	66.610	84.647	141.014	257.091
M-Code	-	0.000	0.000	0.000	-	0.000	0.000	0.000	35.600	13.418
Pylon	-	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	30.630
Block 3i LRIP 2-5 Upgrade	189.935	11.485	5.098	2.117	0.000	2.117	8.171	0.000	0.000	0.000
Block 3F LRIP 2-5 Upgrade	6.790	0.006	0.540	2.005	0.000	2.005	0.250	0.000	0.000	0.000
Block 3F LRIP 6-8 Upgrade	0.000	0.000	0.056	0.000	0.000	0.000	2.800	0.000	0.000	0.000
Concurrency	258.398	104.320	62.576	243.149	0.000	243.149	128.177	119.533	107.103	290.461
Correction of Deficiencies	-	0.000	0.000	0.000	0.000	0.000	172.229	159.634	177.597	0.000
EPAWSS-E	-	0.000	0.000	147.685	0.000	147.685	149.047	142.443	308.818	258.982
INCREMENT 3.2B	64.325	78.410	105.756	9.007	0.000	9.007	20.213	5.963	0.000	-
Airworthiness Directives	-	-	6.213	6.547	0.000	6.547	18.649	24.063	29.775	35.795
C-5 Mission Systems Equipment- Lavatory	0.000	3.332	6.129	10.943	0.000	10.943	9.108	13.159	5.100	0.000
Mission Computer and Weather Radar	0.000	20.860	30.463	38.289	0.000	38.289	36.406	5.040	7.603	0.840

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C-5M Communication Navigation Surveillance/Air Traffic Management (CNS/ATM)	0.000	0.000	0.000	28.613	0.000	28.613	26.090	20.269	23.377	35.897
Replacement Heads Up Display (RHUD)	0.000	0.000	6.274	25.411	0.000	25.411	46.687	49.858	39.401	31.738
Automatic Dependent Surveillance - Broadcast Out (ADS-B Out)	43.186	0.000	22.920	15.748	0.000	15.748	1.950	0.000	0.000	-
Fixed Installation Satellite Antenna (FISA)	-	0.000	39.656	12.431	0.000	12.431	0.000	0.000	-	-
C-17 Visual System Field of View	-	0.000	0.000	26.668	0.000	26.668	0.000	0.000	0.000	-
Avionics Upgrades and FAA Mandates	10.150	0.186	13.010	17.302	0.000	17.302	0.000	-	-	-
Avionics Upgrades FAA Compliance	0.000	0.000	25.113	19.290	0.000	19.290	2.678	0.000	-	-
Avionics Modification	1.589	12.994	21.172	21.642	0.000	21.642	36.095	36.773	37.863	37.170
Pacer Classic III	106.057	16.398	22.477	32.092	0.000	32.092	33.348	35.342	36.424	35.297
T-38 Avionics	26.625	17.192	24.960	29.530	0.000	29.530	0.128	0.484	1.600	1.592
T-38 A/B ADS-B Out	0.000	0.000	4.193	8.390	0.000	8.390	0.000	-	-	-
U-2 Mod	22.095	36.074	36.406	48.774	7.900	56.674	54.443	62.566	57.127	53.908
KC-10 Mode 5	0.000	0.000	0.000	11.004	0.000	11.004	0.000	-	-	-
VC-25 Block Upgrade	84.101	102.116	51.114	36.271	0.000	36.271	48.016	0.000	0.000	0.000
C-130H Avionics Modernization Program (AMP) Increment 1	70.000	0.000	15.500	7.637	0.000	7.637	7.338	3.846	0.000	-
AFSOC C-130 Mods	0.000	0.000	11.000	7.935	0.000	7.935	7.937	0.000	0.000	0.000
BLOCK 8.1	28.716	71.729	141.830	112.182	0.000	112.182	114.528	111.833	162.992	165.963
C-130J Center Wing Replacement	53.103	15.996	29.400	18.825	0.000	18.825	28.291	0.505	0.515	0.559
BLOCK 45	143.434	57.170	57.314	53.865	0.000	53.865	54.509	57.260	73.710	92.944
Rudder Position Indicator (RPI)	-	4.903	5.978	6.124	0.000	6.124	6.267	5.270	6.245	3.141
KC-135 AERO-I SATCOM replacement	-	0.000	0.000	21.666	0.000	21.666	38.694	39.832	26.216	12.053

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Real Time in the Cockpit (RTIC)	-	-	-	26.200	0.000	26.200	23.000	0.000	0.000	0.000
Digital Visual Imaging System (DVIS)	0.000	0.000	20.100	5.913	0.000	5.913	0.000	-	-	-
COMPASS CALL	-	8.496	23.682	0.000	36.400	36.400	0.000	-	-	-
COMPASS CALL Baseline 3	23.296	204.161	199.579	49.885	0.000	49.885	44.754	41.954	38.461	39.159
COBRA BALL	6.144	6.325	6.959	6.776	0.000	6.776	6.898	7.022	7.148	7.277
RIVET JOINT	152.938	190.185	187.807	169.664	0.000	169.664	172.853	175.952	179.503	182.767
COMBAT SENT	6.633	20.728	6.793	9.802	0.000	9.802	9.985	9.966	10.191	10.375
CONSTANT PHOENIX	-	-	-	208.290	0.000	208.290	7.937	-	-	-
E-3 DRAGON	0.000	44.730	142.785	88.701	0.000	88.701	124.864	109.868	142.237	163.529
ELECTRONIC PROTECTION	0.000	0.000	0.000	17.041	0.000	17.041	14.768	7.527	10.548	3.629
IP-enabled Capability (IPEC)	13.358	40.561	35.830	23.366	0.000	23.366	5.000	6.733	2.995	-
AEHF Compatible Terminal/PNVC	0.000	0.017	0.000	8.107	0.000	8.107	3.472	13.982	14.676	1.884
Low Frequency Transmit System (LFTS)	0.000	41.205	20.433	52.281	0.000	52.281	31.748	30.046	0.000	0.000
SERVICE BULLETINS	18.127	5.416	3.262	5.480	0.000	5.480	5.567	5.729	5.903	6.046
Emergency Locator Transmitter (ELT)	-	-	3.000	9.919	13.000	22.919	14.882	13.883	5.950	-
BLOCK 40/45 BLOCK UPGRADE	344.458	245.227	164.786	57.780	0.000	57.780	41.777	39.566	28.758	0.000
Family of Beyond Line-of-Sight Terminals	47.666	4.673	24.716	14.293	0.000	14.293	1.969	1.576	0.000	0.000
DEFENSIVE SYSTEM UPGRADE	15.019	0.010	0.000	0.000	40.560	40.560	0.000	0.000	0.000	0.000
DVE Sensor	0.000	0.700	1.240	23.740	0.000	23.740	19.326	23.164	6.066	4.055
HH-60 DATALINKS	-	7.700	2.661	17.478	0.000	17.478	8.500	7.900	10.635	21.277
GH Aircraft Mods	390.463	2.100	1.170	0.805	0.000	0.805	0.314	5.058	11.124	33.677
GH Ground Station Mods	15.523	-	-	-	-	-	-	-	-	-
Enhanced Weather Capability	17.071	26.945	3.350	-	-	-	-	-	-	-

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ASIP Increment I	34.108	0.000	0.000	-	-	-	-	-	-	-
SAR	3.640	0.000	0.000	0.000	0.000	0.000	0.000	-	-	-
ASIP Install/Calibration	4.834	0.000	-	-	-	-	-	-	-	-
MODE 5/ADS-B	-	0.000	1.338	0.574	0.000	0.574	1.544	-	-	-
Sensor Enhancements	-	0.000	12.680	0.486	0.000	0.486	0.000	0.000	-	-
Ice Protection System	-	-	-	-	-	-	-	20.888	22.860	3.024
ADC/AFS Refresh	-	0.000	2.070	0.000	0.000	0.000	0.000	7.570	2.910	-
CSMP	-	-	-	-	-	-	-	72.574	21.588	13.825
Communication Interoperability/Enhancements	-	3.000	0.000	0.000	0.000	0.000	0.000	0.000	-	-
EISS Enhancements	-	-	3.820	19.850	0.000	19.850	0.993	0.750	0.000	-
ASIP Increment II	-	0.000	17.540	0.000	0.000	0.000	0.000	17.500	56.900	53.640
Low Cost Modifications	0.000	0.000	2.000	2.000	0.000	2.000	2.000	2.000	2.000	2.000
HC/MC-130J Block 8.1	-	-	-	31.919	0.000	31.919	3.253	3.526	3.340	4.000
MC-130J Increment 2	19.176	18.217	3.331	0.000	0.000	0.000	0.000	0.000	0.000	0.000
HC-130J Common Configuration	31.451	0.156	17.566	2.180	0.000	2.180	0.468	0.466	0.500	0.000
HC-130J Personnel Locator System	10.871	5.173	0.000	0.000	0.000	0.000	0.000	-	-	-
HC-130J Situational Awareness	16.530	16.811	27.612	0.000	35.900	35.900	0.000	0.000	0.000	0.000
Wireless Intercom	0.000	1.660	0.000	0.000	11.100	11.100	0.000	0.000	0.000	0.000
HC-130J Countermeasures Dispenser System Rapid Dispense	-	9.300	16.180	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(AbMN) Air borne Mission Networking	-	0.000	14.692	0.000	0.000	0.000	-	-	-	-
ADS-B out Acceleration	-	0.000	2.530	2.530	0.000	2.530	1.954	0.000	0.000	0.000
Advanced Threat Warning System (ATW)	0.000	0.000	29.500	0.000	7.000	7.000	0.000	0.000	0.000	-

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Exhibit P-1M, Procurement Programs - Modification Summary
(Funding for Modifications)

Modification P-40a Item Title P-3a Modification Title	PYS	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
(RFCM) Radio Frequency Countermeasures	0.000	0.000	107.400	0.000	0.000	0.000	0.000	0.000	0.000	-
Paratroop Door	-	0.000	0.000	0.000	24.500	24.500	0.000	0.000	0.000	0.000
Broadband Antenna	-	0.000	0.000	0.000	9.400	9.400	0.000	0.000	0.000	0.000
Low Cost Modifications	8.147	0.000	1.943	1.125	0.000	1.125	0.207	0.023	0.259	0.375
ATP upgrade Legacy to SE	36.150	5.029	28.735	29.103	7.200	36.303	29.861	31.043	0.987	1.005
ATP-SE Technology Insertion	36.954	0.000	15.122	13.386	22.000	35.386	13.621	13.865	14.142	14.399
Battlefield ABN Comm Node (BACN)	1.990	7.500	0.000	19.373	14.131	33.504	64.826	22.392	3.967	3.967
DAS000 (ROBE)	-	0.000	10.381	0.000	10.400	10.400	0.000	0.000	0.000	0.000
Block 5	7.360	6.920	11.980	13.374	0.000	13.374	2.440	1.430	4.120	23.270
MQ-9 Field	185.132	19.340	32.669	49.620	0.000	49.620	54.830	39.410	4.190	-
Lynx SAR	82.482	0.000	17.650	12.860	0.000	12.860	0.110	0.000	0.000	-
GCS Blk 30	89.800	13.867	10.894	21.212	0.000	21.212	31.260	11.276	0.000	0.000
R&M enhancements	71.026	0.407	2.990	1.820	0.000	1.820	2.850	13.470	27.930	61.733
Extended Range MQ-9	142.689	33.825	54.686	54.836	0.000	54.836	47.156	74.220	63.083	16.157
MQ-9 Upgrade	-	129.338	188.271	15.826	0.000	15.826	244.948	46.840	59.950	61.450
Dismount Radar	-	-	-	-	-	-	45.000	45.000	57.000	10.000
MQ-9 Low Cost Mods	13.020	0.000	2.000	2.000	0.000	2.000	0.000	2.000	2.000	2.000
Gorgon Stare	-	22.905	0.000	0.000	16.000	16.000	0.000	0.000	0.000	0.000
Block 20 Upgrade	183.539	61.396	58.991	58.417	0.000	58.417	59.549	61.934	119.148	64.662
Low Cost Modifications	15.408	1.999	1.999	1.999	0.000	1.999	1.999	1.999	1.999	1.999
Totals (Total Obligation Authority)										
Total Obligation Authority	**13,195.803**	**3,265.705**	**3,735.003**	**3,683.935**	**419.619**	**4,103.554**	**3,949.371**	**4,414.917**	**4,345.322**	**4,749.999**

ACRONYMS

GENERAL ACRONYMS

A&AS	- Advisory & Assistance Services
ABIDES	- Automated Budget Interactive Data Environment System
ACAT	- Acquisition Category
ACTD	- Advanced Concept Technology Demonstration
AGM	- Air-to-Ground Missile
AIM	- Air Intercept Missile
AIS	- Avionics Intermediate Shop
ACMI	- Aircraft Combat Maneuvering Instrumentation
AMRAAM	- Advanced Medium-Range Air-to-Air Missile
APPN	- Appropriation
ATD	- Advanced Technology Development
BA	- Budget Activity
BLSS	- Base Level Self-Sufficiency Spares
BY	- Budget Year
C3	- Command, Control, and Communication System
CFE	- Contractor Furnished Equipment
CONOPS	- Concept of Operation
CONUS	- Continental United States
CPMS	- Comprehensive Power Management System
CPT	- Cockpit Procedures Trainer
CRA	- Continuing Resolution Authority
CTS	- Countermeasures Test Set
CY	- Current Year
ECCM	- Electronic Counter Counter-Measures
ECM	- Electronic Counter Measures
ECO	- Engineering Change Orders
EOQ	- Economic Order Quantity
ECP	- Engineering Change Proposal
EPA	- Economic Price Adjustment
EW	- Electronic Warfare
EWAISP	- Electronic Warfare Avionics Integration Support Facility
FLIR	- Forward Looking Infra Red

FOT&E	- Follow-on Test and Evaluation
FOC	- Fully Operational Capability
FLTS	- Flight Line Test Set
FPIF	- Fixed Price Incentive Firm
FPIS	- Fixed Price Incentive Fee, Successive Targets
FY	- Fiscal Year
GANS	- Global Access Navigation & Safety
GATM	- Global Air Traffic Management
GFE	- Government Furnished Equipment
GFP	- Government Furnished Property
GPS	- Global Positioning System
GSE	- Ground Support Equipment
ICS	- Interim Contractor Support
IOC	- Initial Operating Capability
IPE	- Increased Performance Engine
JPALS	- Joint Precision Approach and Landing System
MAIS	- Major Automated Information System Program
MDAP	- Major Defense Acquisition Program
METS	- Mobile Electronic Test Stations
MYP	- Multiyear Procurement
MSIP	- Multi-Stage Improvement Program
NAVWAR	- Navigation Warfare
NMC Rate	- Not Mission Capable Rate
OFP	- Operational Flight Program
OT&E	- Operational Test and Evaluation
OWRM	- Other War Reserve Material
PAGEL	- Priced Aerospace Ground Equipment List
PB	- President's Budget
PGSE	- Peculiar Ground Support Equipment
PMA	- Program Management Administration
PMC	- Procurement Method Code
PNO	- Acquisition Program Number (MDAP Codes)
PR	- Purchase Request
PRCP	- Program Resource Collection Process
PTT	- Part Task Trainer
PY	- Prior Year

R&M	- Reliability and Maintainability
RAA	- Required Asset Availability
RDT&E	- Research, Development, Test and Evaluation
RWR	- Radar Warning Receiver
ROM	- Rough Order of Magnitude
SS	- Sole Source
SOF	- Special Operation Force
TAF	- Tactical Air Force
TCAS	- Traffic Collision Alert and Avoidance System
TEWS	- Tactical Electronic Warfare System
TISS	- TEWS Intermediate Support System
TOA	- Total Obligation Authority
WCF	- Working Capital Fund
WRM	- War Reserve Material
WST	- Weapon System Trainer
UAV	- Unmanned Aerial Vehicle
XML	- Extensible Markup Language

BASE / ORGANIZATIONAL ACRONYMNS

ACC	- Air Combat Command
AETC	- Air Education & Training Command
AFCAO	- Air Force Computer Acquisition Office
AFCESA	- Air Force Civil Engineering Support Agency
AFCIC	- AF Communications & Information Center
AFCSC	- Air Force Cryptologic Service Center
AFESC	- Air Force Engineering Services Center
AFGWC	- Air Force Global Weather Central
AFIT	- Air Force Institute of Technology
AFLCMC	- Air Force Life Cycle Management Center
AFMC	- Air Force Materiel Command
AFMETCAL	- Air Force Metrology and Calibration Office
AFMLO	- Air Force Medical Logistics Office
AFOSI	- Air Force Office of Special Investigation
AFOTEC	- Air Force Operational Test & Evaluation Center
AFPC	- Air Force Personnel Center

AFPSL	- AF Primary Standards Lab
AFR	- Air Force Reserve
AFSOC	- AF Special Operations Command
AFSPC	- Air Force Space Command
AIA	- Air Intelligence Agency
ALC	- Air Logistics Center
AMC	- Air Mobility Command
ANG	- Air National Guard
ASC	- Aeronautical Systems Center
AETC	- Air Education Training Command
AU	- Air University
AWS	- Air Weather Service
CIA	- Central Intelligence Agency
DGSC	- Defense General Support Center
DLA	- Defense Logistics Center
DOE	- Department of Energy
DPSC	- Defense Personnel Support Center
DSCC	- Defense Supply Center, Columbus
DTIC	- Defense Technical Information Center
ER	- Eastern Range
ESC	- Electronic Systems Center
FAA	- Federal Aviation Agency
FBI	- Federal Bureau of Investigation
GSA	- General Services Administration
JCS	- Joint Chiefs of Staff
NATO	- North Atlantic Treaty Organization
OSD	- Office of the Secretary of Defense
PACAF	- Pacific Air Forces
USAF	- United States Air Force
USAFA	- United States Air Force Academy
USAFE	- United States Air Force Europe
USCENTCOM	- United States Central Command
USEUCOM	- United States European Command
USMC	- United States Marine Corps
USSTRATCOM	- United States Strategic Command
WP AFB	- Wright-Patterson AFB, OH

CONTRACT METHOD / TYPE ACRONYMNS

C	- Competitive
BA	- Basic Agreement
BOA	- Basic Ordering Agreement
BPA	- Blanket Purchasing Agreement
CS	- Cost Sharing
IDDQ	- Indefinite Delivery, Definite Quantity
IDIQ	- Indefinite Delivery, Indefinite Quantity
IDRT	- Indefinite Delivery, Requirements
Letter	- Letter
LH	- Labor-hour
MIPR	- Military Interdepartmental Purchase Request
MIPR-C	- Military Interdepartmental Purchase Request - Competitive
MIPR-OPT	- Military Interdepartmental Purchase Request - Option
MIPR-OTH	- Military Interdepartmental Purchase Request – Other
MIPR-SS	- Military Interdepartmental Purchase Request - Sole Source
OPT	- Option
OTH	- Other
PO	- Project Order
REQN	- Requisition
SS	- Sole Source
T&M	- Time and Materials
UCA	- Undefinitized Contract Action
WP	- Work Project

CONTRACTED BY ACRONYMNS

11 WING	- 11th Support Wing, Washington, DC
ACC	- Air Combat Command, Langley AFB, VA
AEDC	- Arnold Engineering Development Center, Arnold AFB, TN
AAC	- Air Armament Center, Eglin AFB, FL
AEDC	- Arnold Engineering Development Center, Arnold AFB, TN
AETC	- Air Education and Training Command, Randolph AFB, TX
AFCIC	- Air Force Communications and Information Center, Washington, DC
AFCESA	- Air Force Civil Engineering Support Agency, Tyndall AFB, FL
AFFTC	- Air Force Flight Test Center, Edwards AFB, CA

AFLCMC	- Air Force Life Cycle Management Center, Wright-Patterson AFB, OH
AFMC	- Air Force Materiel Command, Wright-Patterson AFB, OH
AFMETCAL	- Air Force Metrology and Calibration Office, Heath, Ohio
AFMLO	- Air Force Medical Logistics Office, Ft Detrick, MD
AIA	- Air Intelligence Agency, Kelly AFB, TX
AMC	- Air Mobility Command, Scott AFB, IL
ASC	- Aeronautical Systems Center, Wright-Patterson AFB, OH & Eglin AFB, FL
AFWA	- Air Force Weather Agency, Offutt AFB, NE
DGSC	- Defense General Support Center, Richmond, VA
DPSC	- Defense Personnel Support Center, Philadelphia, PA
ER	- Eastern Range, Patrick AFB, FL
ESC	- Electronic Systems Center, Hanscom AFB, MA
HSC	- Human Services Center, Brook AFB, TX
OC-ALC	- Oklahoma City Air Logistics Center, Tinker AFB, OK
OO-ALC	- Ogden Air Logistics Center, Hill AFB, UT
SMC	- Space & Missile Systems Center, Los Angeles AFB, CA
US STRATCOM	- US Strategic Command, Offutt AFB, NE
WACC	- Washington Area Contracting Center, Washington DC
WR	- Western Range, Vandenberg AFB, CA
WR-ALC	- Warner-Robins Air Logistics Center, Robins AFB, GA
AFSPC	- Air Force Space Command, Peterson AFB, CO
HQ ANG	- Headquarters, Air National Guard, Washington, DC
USAFE	- United States Air Force Europe, Ramstein AB, GE
USAFA	- United States Air Force Academy, Colorado Springs, CO
SSG	- Standard Systems Group, Maxwell AFB-Gunter Annex, AL

IDENTIFICATION CODES

Code “A”	- Line items of material which have been approved for Air Force service use
Code “B”	- Line items of material that have not been approved for Service use
OBAN	- Operating Budget Account Number, 2-digit code for unit allocated funds

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 1: Strategic Aircraft	**P-1 Line Item Number / Title:** B00200 / B-2A

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0101125F, 0101127F	Other Related Program Elements: 0101127F

Line Item MDAP/MAIS Code: 224

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	162.392	38.950	96.727	60.301	0.000	60.301	32.131	37.886	54.629	55.606	-	538.622
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	162.392	38.950	96.727	60.301	0.000	60.301	32.131	37.886	54.629	55.606	-	538.622
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**162.392**	**38.950**	**96.727**	**60.301**	**0.000**	**60.301**	**32.131**	**37.886**	**54.629**	**55.606**	**-**	**538.622**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The B-2 is a multi-engine, long range bomber incorporating low-observable ('stealth') technology that enables the B-2 to penetrate enemy air defenses and strike high-value targets. Specific modifications, budgeted and programmed, are below.

Funding for the exhibit is primarily in PE 0101127F (B-2 Squadrons). Some trainer efforts are funded in PE 0809731F (Training Support to Units), and other efforts are funded under PE 0207446F (Bomber Tactical Data Link).

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 1: Strategic Aircraft

P-1 Line Item Number / Title:
B00200 / B-2A

ID Code (A=Service Ready, B=Not Service Ready): B | **Program Elements for Code B Items:** 0101125F, 0101127F | **Other Related Program Elements:** 0101127F

Line Item MDAP/MAIS Code: 224

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-3a	110031 / B-2 Trainer System Upgrade (Capability Improvement)		A		- / 35.402	- / 0.428	- / 9.082	- / 7.800	- / 0.000	- / 7.800
P-3a	110032 / LINK 16/CID/IFR (Capability Improvement)		A		- / 0.474	- / 0.415	- / 1.718	- / 2.296	- / 0.000	- / 2.296
P-3a	110035 / LOW OBSERVABLE SIGNATURE AND SUPPORTABILITY MODS (Reliability & Maintainability)		A		- / 43.151	- / 4.953	- / 8.454	- / 13.489	- / 0.000	- / 13.489
P-3a	110043 / B-2 Adaptable Communications Suite (ACS) (Capability Improvement)		A		- / 21.037	- / 0.297	- / 0.624	- / 0.296	- / 0.000	- / 0.296
P-3a	110054 / B-2 Flex Strike Phase 1 (Capability Improvement)		B		- / 0.000	- / 10.231	- / 6.658	- / 7.662	- / 0.000	- / 7.662
P-3a	110056 / B61-12 Integration (Capability Improvement)		B		- / 0.000	- / 0.000	- / 27.514	- / 0.000	- / 0.000	- / 0.000
P-3a	110057 / MGUE (Capability Improvement)		A		- / -	- / 4.034	- / 10.704	- / 0.578	- / 0.000	- / 0.578
P-3a	110061 / IFF Mode 5/S/ADS-B Out (Capability Improvement)		B		- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-3a	110062 / Crash Survivable Memory Unit (CSMU) (Capability Improvement)		B		- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-3a	110064 / Rotary Launcher Assembly (RLA) Service Life Extension Program (Service Life Extension)		B		- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-3a	110065 / B-2 GBU-57 MOP Integration (Capability Improvement)		B		- / 0.000	- / 0.000	- / 20.032	- / 19.787	- / 0.000	- / 19.787
P-3a	8882 / Common Very Low Frequency Terminal (Capability Improvement)		B		- / 24.264	- / 18.592	- / 10.610	- / 7.051	- / 0.000	- / 7.051
P-3a	1 / B-2 Low Cost Engine Modifications (Reliability & Maintainability)		A		- / 18.186	- / 0.000	- / 0.718	- / 0.723	- / 0.000	- / 0.723
P-3a	2 / Low Cost Modifications (Capability Improvement)		A		- / 19.878	- / 0.000	- / 0.613	- / 0.619	- / 0.000	- / 0.619
P-40	**Total Gross/Weapon System Cost**				**- / 162.392**	**- / 38.950**	**- / 96.727**	**- / 60.301**	**- / 0.000**	**- / 60.301**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-3a	110031 / B-2 Trainer System Upgrade (Capability Improvement)		A		- / 7.938	- / 8.080	- / 8.242	- / 8.392	- / -	- / 85.364
P-3a	110032 / LINK 16/CID/IFR (Capability Improvement)		A		- / 0.200	- / 0.204	- / 0.208	- / 0.211	- / -	- / 5.726
P-3a	110035 / LOW OBSERVABLE SIGNATURE AND SUPPORTABILITY MODS (Reliability & Maintainability)		A		- / 9.607	- / 19.878	- / 20.276	- / 20.645	- / -	- / 140.453
P-3a	110043 / B-2 Adaptable Communications Suite (ACS) (Capability Improvement)		A		- / 0.296	- / 0.300	- / 0.306	- / 0.312	- / -	- / 23.468
P-3a	110054 / B-2 Flex Strike Phase 1 (Capability Improvement)		B		- / 4.894	- / 0.000	- / 0.000	- / -	- / -	- / 29.445
P-3a	110056 / B61-12 Integration (Capability Improvement)		B		- / 0.000	- / 0.000	- / -	- / -	- / -	- / 27.514
P-3a	110057 / MGUE (Capability Improvement)		A		- / 0.990	- / 0.000	- / 0.000	- / -	- / -	- / 16.306
P-3a	110061 / IFF Mode 5/S/ADS-B Out (Capability Improvement)		B		- / 1.984	- / 7.239	- / 15.020	- / 15.294	- / -	- / 39.537
P-3a	110062 / Crash Survivable Memory Unit (CSMU) (Capability Improvement)		B		- / 2.480	- / 0.793	- / 1.601	- / 1.631	- / -	- / 6.505

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	**Date:** February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 1: Strategic Aircraft	**P-1 Line Item Number / Title:** B00200 / B-2A

ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0101125F, 0101127F	**Other Related Program Elements:** 0101127F

Line Item MDAP/MAIS Code: 224

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-3a	110064 / Rotary Launcher Assembly (RLA) Service Life Extension Program (Service Life Extension)		B		- / 0.000	- / 0.000	- / 7.537	- / 7.675	- / -	- / 15.212
P-3a	110065 / B-2 GBU-57 MOP Integration (Capability Improvement)		B		- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / 39.819
P-3a	8882 / Common Very Low Frequency Terminal (Capability Improvement)		B		- / 2.376	- / -	- / -	- / -	- / -	- / 62.893
P-3a	1 / B-2 Low Cost Engine Modifications (Reliability & Maintainability)		A		- / 0.736	- / 0.751	- / 0.766	- / 0.780	- / -	- / 22.660
P-3a	2 / Low Cost Modifications (Capability Improvement)		A		- / 0.630	- / 0.641	- / 0.673	- / 0.666	- / -	- / 23.720
P-40	**Total Gross/Weapon System Cost**				**- / 32.131**	**- / 37.886**	**- / 54.629**	**- / 55.606**	**- / -**	**- / 538.622**

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 110031 / B-2 Trainer System Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	35.402	0.428	9.082	7.800	0.000	7.800	7.938	8.080	8.242	8.392	-	85.364
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	35.402	0.428	9.082	7.800	0.000	7.800	7.938	8.080	8.242	8.392	-	85.364
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**35.402**	**0.428**	**9.082**	**7.800**	**0.000**	**7.800**	**7.938**	**8.080**	**8.242**	**8.392**	**-**	**85.364**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The B-2 Training System upgrade program ensures concurrency with the aircraft, provides for the evolution of the B-2 Training System as dictated by technology, global threat, and national security realities, and enables the B-2 anti-access/area denial and global strike mission. The B-2 Training System provides initial qualification, proficiency, continuation, re-qualification, mission rehearsal, and upgrade training for B-2 aircrew, maintainers, and weapons loaders. It includes, but is not limited to, the following training elements at Whiteman AFB: three Weapon System Trainers (WSTs) with instructor-operator stations, four Cockpit Procedure Trainers (CPTs), a Weapons Loading Trainer (WLT); a Crew Escape System Maintenance Trainer (CESMT); a Flight Control System Trainer (FCST); a Mission Viewing Room (MVR); and a Training System Support Center (TSSC). The B-2 Training System also includes five maintenance training classrooms each consisting of a Computerized Maintenance Training System (CMTS), six computer-based training (CBT) Weapon System Training Aids (WSTAs), and an instructor operator station.

The B-2 Training System upgrade effort includes, but is not limited to, updates to training device hardware and computers, simulation software, courseware lessons and academics materials, instructional system design architectures, engineering drawings, and system documentation not driven by a funded aircraft modification. These upgrades are ongoing and necessary to ensure concurrency with the B-2 weapon system while providing the combat fidelity necessary to train operational and warfighter employment requirements, preserving precious flight hours, avoiding 30-40 hour on-aircraft training sorties or committing an aircraft to maintenance and weapons loading training negatively affecting aircraft availability. Upgrades include, but are not limited to, updates to threat systems parametric and order of battle information, upgrades of radar emulation components and capabilities in the WSTs/Mission Trainers, updates of display systems and subsystems, and fidelity upgrades of the WST to more precisely resemble air refueling and approach/landing procedures experienced in the jet. Additional improvements include updates to courseware and simulation associated with nuclear and conventional guided weapons delivery, expanded crypto keyfill training, upgrade of the electronic combat environment threat database. Improvements will also include expanded "freeplay" capability on the CPTs and CMTSs, upgrade of the WST simulation to provide weapons as powered up upon completion of initial conditions, upgrade of the current Defensive Management System simulation and the alternative/emergency procedures courseware, and upgrade of the Suppressor tool. Additionally provides a Mission Director Room, including providing two-way communication (voice and text), provide the ability to prepare scripted events and/or input real-time modifications to the virtual environment (i.e. weather, players, etc.), the means to preview missions, observe live events, and review recorded events, and upgrade of the simulation and computational processors as necessary. Efforts also include a replacement of the current communications suite to meet current and future training needs and upgrades to the Mission Generation System, allowing faster generation of WST missions, among other benefits. Additionally, Diminishing Manufacturing Sources efforts to include removal of end-of-life software/hardware within simulators systems and move to a modular, common open systems architecture that is sustainable and cyber-resilient. Implement requirements and standards defined under the Simulator Common Architecture Requirements and Standards (SCARS) initiative. Life of Type buys may be implemented when appropriate to address diminishing manufacturing sources and materiel shortages for affected components and subassemblies to protect the planned production program by mitigating unplanned part redesign and re-qualification risks.

Quantities and delivery dates have not been included due to the wide variety of ongoing modification efforts to the various elements of the B-2 Training System. B-2 Training System funding includes aircraft modification funds from PE 0809731F, specifically for the Maintenance Training System. These amounts are reflected on the P3-A in the "EQUIPMENT Group B (Active)" row.
Funds may be used to resolve emerging safety of flight and diminishing manufacturing sources issues, accommodate technology insertion and fulfill FAA or other mandates necessary to ensure continued aircrew safety and mission effectiveness.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 110031 / B-2 Trainer System Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Milestone/Development Status

Development of B-2 Training System upgrades is a continuous process relative to the needs of each funded effort. Some efforts do not require RDT&E, while others require design and test activities. This program has associated Research Development Test and Evaluation (RDT&E) funding in PE 0101127F.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 110031 / B-2 Trainer System Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: B-2	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0101127F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: B-2 Trainer Mods												
A Kits												
Recurring												
B-2 Trainer Mods:INSTALL KITS Group A (Active)	- / 5.889	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.889
Subtotal: Recurring	*- / 5.889*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 5.889*
B Kits												
Recurring												
B-2 Trainer Mods:EQUIPMENT Group B (Active)	- / 20.355	- / 0.428	- / 9.082	- / 7.800	- / -	- / 7.800	- / 7.938	- / 8.080	- / 8.242	- / 8.392	- / -	- / 70.317
Subtotal: Recurring	*- / 20.355*	*- / 0.428*	*- / 9.082*	*- / 7.800*	*- / -*	*- / 7.800*	*- / 7.938*	*- / 8.080*	*- / 8.242*	*- / 8.392*	*- / -*	*- / 70.317*
Subtotal: B-2 Trainer Mods	*- / 26.244*	*- / 0.428*	*- / 9.082*	*- / 7.800*	*- / -*	*- / 7.800*	*- / 7.938*	*- / 8.080*	*- / 8.242*	*- / 8.392*	*- / -*	*- / 76.206*
Subtotal: Procurement, All Modification Items	*- / 26.244*	*- / 0.428*	*- / 9.082*	*- / 7.800*	*- / -*	*- / 7.800*	*- / 7.938*	*- / 8.080*	*- / 8.242*	*- / 8.392*	*- / -*	*- / 76.206*
Support *(All Modification Items)*												
SIM/TRAINER	0 / 8.591	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 8.591
OTHER GOVT	- / 0.567	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.567
Subtotal: Support	*0 / 9.158*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*0 / 9.158*
Installation												
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*
Total												
Total Cost (Procurement + Support + Installation)	**35.402**	**0.428**	**9.082**	**7.800**	**0.000**	**7.800**	**7.938**	**8.080**	**8.242**	**8.392**	**-**	**85.364**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 110031 / B-2 Trainer System Upgrade

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 1 of 1: B-2 Trainer Mods

Manufacturer Information

Manufacturer Name: L3 Comm

Manufacturer Location: Binghampton, NY

Administrative Leadtime *(in Months)*: 0

Production Leadtime *(in Months)*: 0

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation (Organic): Org/Intermediate

Installation Quantity: 0

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 110032 / LINK 16/CID/IFR
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.474	0.415	1.718	2.296	0.000	2.296	0.200	0.204	0.208	0.211	-	5.726
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.474	0.415	1.718	2.296	0.000	2.296	0.200	0.204	0.208	0.211	-	5.726
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.474**	**0.415**	**1.718**	**2.296**	**0.000**	**2.296**	**0.200**	**0.204**	**0.208**	**0.211**	**-**	**5.726**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Link 16 is a secure, anti-jam Department of Defense standardized Tactical Digital Information Link - J (TADIL-J). Link 16 provides a tactical secure digital data communications link to improve situational awareness for the crew, enabling successful accomplishment of the B-2's anti-access/aerial denial and global strike mission. The Link 16/Center Instrument Display (CID)/In-Flight Replanner (IFR) program adds a Link 16 capability to the B-2, a modern 8x10 inch display, and the capability for the aircrew to replan in-flight mission segments based on target and threat changes.

Link 16 capability includes the integration of a Government Furnished Property Link 16 Multifunctional Information Distribution System (MIDS) terminal, a new antenna, cables, filters, and other associated hardware. Also in support of the Link 16/CID/IFR capability, a control and display unit, the aircraft batteries, the ground-based mission planning system, and the ground-based B-2 training system are being upgraded. New aircraft software, as well as upgrades to the existing software, will be incorporated. One kit was purchased with Engineering and Manufacturing Development (EMD) funds to accomplish development testing and evaluation and one partial kit was acquired to bring the EMD kit to a production configuration.

The Link 16 program brings the training system, including all aircrew and maintenance trainers as well as the Weapons Load Trainer, to full Link 16/CID/IFR capability. To do this, the training system was rehosted on new general purpose computers to provide improved capacity. Other Government Cost funding includes proposal preparation and Link 16 MIDS terminal support. Additional efforts include Gateway support for Link-16, MIDS field service support, Automatic Test Procedure enhancement, J-message enhancement to include an ability to transmit Defensive Management System information and the ability to transmit text message through J28.2 message. The Link 16 CID Line Replaceable Unit is currently experiencing uncommanded resets which may require a correction of deficiency effort and additional funding. All Link 16 CIDS have been installed in the B-2 fleet for training purposes only.

At the recommendation of the National Security Agency (NSA), the Chairman, Joint Chiefs of Staff, directed modernization of equipment to provide enhanced security for Link 16 tactical networks (Cryptographic Modernization (CM)). Likewise, a radio frequency spectrum memorandum of agreement between the DoD and the Department of Transportation mandates the internal frequency remapping for the Link 16 family of terminals to avoid conflict with next generation Federal Aviation Administration radio aids to navigation. These two mandates, among other operational reliability and capability improvements, will be satisfied under a Block Upgrade 2 (BU2) effort planned for the Link 16 Multifunctional Information Distribution System (MIDS) Low Volume Terminal (LVT) and MIDS Joint Tactical Radio System (JTRS) terminal.

BU2 will procure new Signal Message Processor (SMP) cards that incorporate the most current NSA-mandated cryptographic standards. BU2 will also procure new Tailored Processor/Ground Mux cards, update software and firmware in the MIDS LVT to improve operation reliability, and enable the radio to remap the lower frequency range of the terminal. The new cards will be installed in all terminals and spare cards will also be purchased.

CM also impacts Advanced Integrated Terminal (AIT) (AN/ARC-234 UHF/VHF radio) and AN/ARC-211 (KYV-5M crypto module) (HF radio). Modification to B-2 assets must be complete by 2020 implementation deadline. 3600 RDT&E Program integrates all three LRUs in one IFC for 2020 FOC. Effort includes SAPF access/system security plans, integration, Integrated Functional Capability (IFC) and Operational Flight Program development (software updates required for AIT, MIDS LVT BU2 pending evaluation, no software updates required for KYV-5M module), flight test plan, and TO updates. AF Space Command manages

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 110032 / LINK 16/CID/IFR
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

AN/ARC-234 & KYV-5M modules and are funding AIT retrofits and KYV-5M new buys. Navy manages MIDS LVT Block Upgrade 2 (BU2). Air Combat Command is funding BU2 retrofit for all USAF MIDS LVT platforms. Program retrofits/modifies all B-2 flying assets/spares/test assets (WSSC/CTF).

FY 2003 and FY 2004 production funds were in the B-2 Program Element (PE) 0101127F and FY 2005 - FY 2008 and FY 2016 - FY 2021 production funds are in the Tactical Data Networks (TDN) PE 0207446F (Weapon System Code (WSC) b00200).

Funds may be used to resolve emerging safety of flight and diminishing manufacturing sources issues, accommodate technology insertion and fulfill FAA or other mandates necessary to ensure continued aircrew safety and mission effectiveness.

Milestone/Development Status

EMD began in FY 2000 and ended April 2010. FY 2000 to FY 2004 RDT&E funds were in the B-2 PE 0604240F and FY 2005 to FY 2007 RDT&E funds were in the Tactical Data Networks (TDN) System Program Office PE 0207446F.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 110032 / LINK 16/CID/IFR
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: B-2	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0101127F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Retrofit of MIDS Link 16												
B Kits												
Recurring												
Retrofit of MIDS Link 16:EQUIPMENT Group B (Active)	- / 0.474	- / 0.415	- / 1.718	- / 2.296	- / -	- / 2.296	- / 0.200	- / 0.204	- / 0.208	- / 0.211	- / -	- / 5.726
Subtotal: Recurring	*- / 0.474*	*- / 0.415*	*- / 1.718*	*- / 2.296*	*- / -*	*- / 2.296*	*- / 0.200*	*- / 0.204*	*- / 0.208*	*- / 0.211*	*- / -*	*- / 5.726*
Subtotal: Retrofit of MIDS Link 16	*- / 0.474*	*- / 0.415*	*- / 1.718*	*- / 2.296*	*- / -*	*- / 2.296*	*- / 0.200*	*- / 0.204*	*- / 0.208*	*- / 0.211*	*- / -*	*- / 5.726*
Subtotal: Procurement, All Modification Items	*- / 0.474*	*- / 0.415*	*- / 1.718*	*- / 2.296*	*- / -*	*- / 2.296*	*- / 0.200*	*- / 0.204*	*- / 0.208*	*- / 0.211*	*- / -*	*- / 5.726*
Support *(All Modification Items)*												
GROUP B: TOTAL NONRECURRING	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.000	- / -	- / -	- / -	- / 0.000
Subtotal: Support	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.000*	*- / 0.000*	*- / -*	*- / -*	*- / -*	*- / 0.000*
Installation												
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*
Total												
Total Cost (Procurement + Support + Installation)	**0.474**	**0.415**	**1.718**	**2.296**	**0.000**	**2.296**	**0.200**	**0.204**	**0.208**	**0.211**	**-**	**5.726**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 110032 / LINK 16/CID/IFR

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 1 of 1: Retrofit of MIDS Link 16

Manufacturer Information

Manufacturer Name: Unknown

Manufacturer Location: Unknown

Administrative Leadtime *(in Months)*: 0

Production Leadtime *(in Months)*: 0

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation (Organic): Org/Intermediate

Installation Quantity: 0

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 110035 / LOW OBSERVABLE SIGNATURE AND SUPPORTABILITY MODS
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	43.151	4.953	8.454	13.489	0.000	13.489	9.607	19.878	20.276	20.645	-	140.453
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	43.151	4.953	8.454	13.489	0.000	13.489	9.607	19.878	20.276	20.645	-	140.453
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**43.151**	**4.953**	**8.454**	**13.489**	**0.000**	**13.489**	**9.607**	**19.878**	**20.276**	**20.645**	**-**	**140.453**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Low Observable Signature and Supportability Modifications (LOSSM) program supports the B-2 ability to penetrate anti-access combat environments, performing missions directed by the National Command Authority while ensuring aircrew survivability. The LOSSM program reduces low observable (LO) maintenance, increases aircraft availability, and maintains and improves the combat-ready LO signature for the B-2 fleet. This program includes multiple improvement projects including, but not limited to, improved LO materials (conductive gap fillers and tape, adhesives, electrically resistive materials, radar absorbing material, fastener fills, coatings, and improved processes), LO structures (radar radomes, hot trailing edges and tiles, batwing panel, intermediate section doors, tailpipes, windows, lib bay panels, permanent fasteners, exhaust pockets, gust load alleviation system, inlets, radar absorbing structures, antenna optimization, overall signature stability, and Alternate High Frequency Material expansion), and radio frequency (RF) diagnostic tools and evaluation systems (SCI-2k radar, Tier One Material Inspection System, Signature Diagnostic System, Portable Laser Removal Tool, next generation Tier II and Tier III systems, Hand held Imaging Tool, Test Article 0998 optimization, LO-related special test equipment, and B-2 specific improvements/efforts to Air Force Research Laboratory's Mobile Diagnostic Laboratory).

As this program encompasses multiple projects, the number of installs will not be representative of the number of aircraft affected. Some modifications will be made to each of the 20 B-2 aircraft and other modifications will be made to related B-2 support equipment. Various lead times are required for the different modifications causing different contract and delivery dates.

This program is essential to B-2 Anti-Access and Global Strike mission and supports Aircraft Availability Improvement Program goals. The "Method of Implementation" for these components varies based on the teams performing these component installations. Installs occur at Depot and flight line level and can include either organic or contractor field teams.

Funds may be used to resolve emerging safety of flight and diminishing manufacturing sources issues, accommodate technology insertion and fulfill FAA or other mandates necessary to ensure continued aircrew safety and mission effectiveness. The increase in funding from the 18PB to the 19PB will be used to fund 21 prioritized projects in support of the continued survivability and maintainability of the B-2 fleet.

Milestone/Development Status

The Low Observable Signature and Supportability Modification program captures a family of projects. Development efforts continue to mature LO materials and technologies. This program has associated Research Development Test and Evaluation funding in PE 0101127F.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 110035 / LOW OBSERVABLE SIGNATURE AND SUPPORTABILITY MODS
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: B-2	**Modification Type:** Reliability & Maintainability	**Related RDT&E PEs:** 0101127F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: LO Upgrades												
A Kits												
Recurring												
LO Upgrades:INSTALL KITS Group A (Active)	- / 20.751	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 20.751
Subtotal: Recurring	*- / 20.751*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 20.751*
Subtotal: LO Upgrades	*- / 20.751*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 20.751*
Subtotal: Procurement, All Modification Items	*- / 20.751*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 20.751*
Support *(All Modification Items)*												
GROUP A: TOTAL NONRECURRING	- / 2.717	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.717
Data	- / 5.307	- / 0.296	- / 0.254	- / 0.405	- / -	- / 0.405	- / 0.336	- / 0.795	- / 1.912	- / 5.497	- / -	- / 14.802
OTHER GOVT	- / -	- / 4.227	- / 7.208	- / 12.000	- / -	- / 12.000	- / 8.576	- / 16.684	- / 12.913	- / 9.896	- / -	- / 71.504
SUPPORT-EQUIP	- / 8.787	- / 0.000	- / 0.487	- / 0.065	- / -	- / 0.065	- / 0.097	- / 0.832	- / 1.177	- / 0.714	- / -	- / 12.159
PMA - Other Gov't Costs	- / 5.589	- / 0.430	- / 0.505	- / 1.019	- / -	- / 1.019	- / 0.598	- / 1.567	- / 4.274	- / 4.538	- / -	- / 18.520
Subtotal: Support	*- / 22.400*	*- / 4.953*	*- / 8.454*	*- / 13.489*	*- / -*	*- / 13.489*	*- / 9.607*	*- / 19.878*	*- / 20.276*	*- / 20.645*	*- / -*	*- / 119.702*
Installation												
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*
Total												
Total Cost (Procurement + Support + Installation)	**43.151**	**4.953**	**8.454**	**13.489**	**0.000**	**13.489**	**9.607**	**19.878**	**20.276**	**20.645**	**-**	**140.453**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 110035 / LOW OBSERVABLE SIGNATURE AND SUPPORTABILITY MODS

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 1 of 1: LO Upgrades

Manufacturer Information

Manufacturer Name: Various

Manufacturer Location: Various

Administrative Leadtime *(in Months)*: 0

Production Leadtime *(in Months)*: 0

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation (Organic): Org/Intermediate

Installation Quantity: 0

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 110043 / B-2 Adaptable Communications Suite (ACS)
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	21.037	0.297	0.624	0.296	0.000	0.296	0.296	0.300	0.306	0.312	-	23.468
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	21.037	0.297	0.624	0.296	0.000	0.296	0.296	0.300	0.306	0.312	-	23.468
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**21.037**	**0.297**	**0.624**	**0.296**	**0.000**	**0.296**	**0.296**	**0.300**	**0.306**	**0.312**	**-**	**23.468**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Adaptable Communications Suite (ACS) provides a non-integrated avionics and communications system that allows the B-2 fleet to receive mission data, time sensitive targeting information, intelligence and weather updates, positive command and control procedures, and perform operational reconnaissance. The B-2 typically deploys from CONUS and is enroute to the Area of Responsibility prior to the release of the Air Tasking Order (ATO). The Combatant Commanders and Combined Air Operations Centers require the B-2 have a robust and flexible satellite communications (SATCOM) capability - the current SATCOM is voice only. The B-2 must be able to receive mission data in-flight and receive the official ATO target list prior to going emissions quiet. Typical data passed to the B-2 includes new missions, mission changes, Electronic Order of Battle (EOB) updates, target changes, package updates, weather updates, and other critical information to B-2s enroute to theater, and emerging time-sensitive targets while in theater utilizing Airborne Mission Transfer (AMT).

The ACS system consists of Commercial-off-the-Shelf (COTS) computer equipment, data recorder and PRC-117G radios providing satellite data communications. The computer subsystems receive continuous secure Beyond Line-of-Sight (BLOS) intelligence updates, receives AMT files (EOB, mission routing, target changes, etc.), secure email (updated intelligence, follow-on force report, weather updates, etc.), near real time (NRT) Operational Electronic Intelligence (OPELINT) sensor data back to the Mission Planning Center and tactical customers, and solidifies command and control procedures. Displays and keyboards are located at each crew position and on the system rack to run the secure systems. The OPELINT data provides updates for follow-on aircraft, follow-on mission planning, and electronic warfare reprogramming. Additionally, aircraft were modified with the Airborne Instrumentation System (AIS); this modification provides access to the aircraft 1553 and Defensive Management System High Speed data busses to standardize the B-2 fleet configuration. In order for the B-2 weapon system to continue to meet its Global Strike requirement, the ACS system must evolve to stay current with emerging technologies and address COTS obsolescence.

The ACS baseline is twenty operational systems for the B-2 aircraft and eleven ground stations which support deployment, training, and operational needs. Upgrades of the ACS racks are accomplished by multiple increments with multiple install schedules.

Modification validated by Combat Air Forces 320 02 Critical Mission Needs Statement, 27 Jan 03 and B-2 ORD 007-89-111-A (Rev 11).

Funds may be used to resolve emerging safety of flight and diminishing manufacturing sources issues, accommodate technology insertion and fulfill FAA or other mandates necessary to ensure continued aircrew safety and mission effectiveness.

Milestone/Development Status

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 110043 / B-2 Adaptable Communications Suite (ACS)
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Development for ACS Increments 1 and 2 started in FY 2006 with a non-integrated tactical communications suite providing secure transmission of AMT, BLOS situational awareness, and email capabilities. Successful Operational Utility Evaluation (OUE) completed January 2010. Production of ACS Increments 1 and 2 began February 2010 and completed January 2011. Integration of the third commercial-off-the-shelf computer and Advanced GPS Receiver started in August 2011 and completed production installation in late 2012. AIS kits delivered in October 2012 and completed in August 2013.

Development for ACS Increments 3.1 began February 2010 to add NRT OPELINT capabilities; the OUE was completed in July 2011 with production beginning in December 2014 and completed in May 2015. Development for ACS Increment 3.2 began in April 2015 and installation and tests on one aircraft completed in July 2016. Additional ACS 3.2 installs began in March 2017 and will complete in FY 2020. Future ACS capabilities and obsolescence projects are in the planning stages.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 110043 / B-2 Adaptable Communications Suite (ACS)
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: B-2	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0101127F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: ACS Upgrades												
A Kits												
Recurring												
ACS Upgrades:INSTALL KITS Group A (Active)	- / 0.090	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.090
Subtotal: Recurring	*- / 0.090*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.090*
B Kits												
Recurring												
ACS Upgrades:EQUIPMENT Group B (Active)	- / 14.605	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 14.605
Subtotal: Recurring	*- / 14.605*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 14.605*
Subtotal: ACS Upgrades	*- / 14.695*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 14.695*
Subtotal: Procurement, All Modification Items	*- / 14.695*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 14.695*
Support *(All Modification Items)*												
GROUP A: TOTAL NONRECURRING	- / 0.659	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.659
Change Orders	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000
Data	- / 3.488	- / 0.200	- / 0.350	- / 0.140	- / -	- / 0.140	- / 0.140	- / 0.143	- / 0.141	- / 0.147	- / -	- / 4.749
OTHER GOVT	- / -	- / -	- / 0.089	- / 0.087	- / -	- / 0.087	- / 0.088	- / 0.088	- / 0.086	- / 0.086	- / -	- / 0.524
PMA - Other Gov't Costs	- / -	- / -	- / 0.035	- / 0.011	- / -	- / 0.011	- / 0.010	- / 0.013	- / 0.023	- / 0.023	- / -	- / 0.115
SUPPORT-EQUIP	- / 2.195	- / 0.097	- / 0.150	- / 0.058	- / -	- / 0.058	- / 0.058	- / 0.056	- / 0.056	- / 0.056	- / -	- / 2.726
Subtotal: Support	*- / 6.342*	*- / 0.297*	*- / 0.624*	*- / 0.296*	*- / -*	*- / 0.296*	*- / 0.296*	*- / 0.300*	*- / 0.306*	*- / 0.312*	*- / -*	*- / 8.773*
Installation												
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*
Total												
Total Cost (Procurement + Support + Installation)	**21.037**	**0.297**	**0.624**	**0.296**	**0.000**	**0.296**	**0.296**	**0.300**	**0.306**	**0.312**	**-**	**23.468**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 110043 / B-2 Adaptable Communications Suite (ACS)

ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**

Modification Item 1 of 1: ACS Upgrades

Manufacturer Information

Manufacturer Name: Unknown	Manufacturer Location: Unknown
Administrative Leadtime *(in Months)*: 1	Production Leadtime *(in Months)*: 1

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation (Organic): Org/Intermediate	**Installation Quantity:** 0

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 110054 / B-2 Flex Strike Phase 1
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	10.231	6.658	7.662	0.000	7.662	4.894	0.000	0.000	-	-	29.445
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	10.231	6.658	7.662	0.000	7.662	4.894	0.000	0.000	-	-	29.445
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**10.231**	**6.658**	**7.662**	**0.000**	**7.662**	**4.894**	**0.000**	**0.000**	**-**	**-**	**29.445**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Current in-flight B-2 weapons management is severely restricted, limiting mission flexibility and combat employment effectiveness. Flexible Strike Phase I will re-host the two distinct parts of the current Stores Management Operational Flight Program (SMOFP) into the Integrated Processor Unit (IPU). The increased memory and throughput of the IPU is required for advanced digital interfaces such as those used by B61-12 weapons. The software upgrade will also enable later simultaneous configurations of multiple weapons carriage capabilities in Phase II, thus providing B-2 with maximum strategic nuclear and conventional strike flexibility including hardened, deeply buried targets. As the only anti-access /area denial penetrating platform capable of carrying the Massive Ordnance Penetrator (MOP), a B-2 with combined carriage of a MOP and 2000 lb or 5000 lb penetrator weapons on the Rotary Launcher Assembly (RLA) will provide unprecedented capability to destroy a wider array of target sets.

Due to B-2 Stores Management Processor memory limitations, the current SMOFP is split into RLA and Smart Bomb Rack Assembly (SBRA) files which cannot be accessed simultaneously. This prevents mixed carriage of the RLA, SBRA, or the MOP Monitor and Control Assembly (MACE) /Carriage and Release Equipment (CARE) on the same mission. Phase 1 will provide Integrated Functional Capability software updates, 20 aircraft cable kits, and updates to associated documents and technical data. Five kits were developed with Research Development Test and Evaluation (RDT&E) funds for four aircraft installs. The fifth development kit will be refurbished and utilized as a production install via procurement funding.

Procurement funding will purchase the remaining 15 kits /installs for a total of 20 aircraft. The FY-2019 PB shows a unit cost increase over prior years based on an increase from the initial cost estimate to the final production cost.

Funds may be used to resolve emerging safety of flight and diminishing manufacturing sources issues, accommodate technology insertion and fulfill FAA or other mandates necessary to ensure continued aircrew safety and mission effectiveness. This may include lifetime buys of components and subassemblies where determined to be at risk of non-availability.

Milestone/Development Status

Flexible Strike Phase 1 (SMOFP Rehost) was initiated with FY 2011 and FY 2012 Congressional-add funds. The pre-Engineering and Manufacturing Development (EMD) contract was awarded in July 2012. The System Functional Review completed June 2013. The Milestone B decision was approved in June 2014 followed by EMD contract award in August 2014. The Critical Design Review completed February 2015. Development testing commenced in 2016.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 110054 / B-2 Flex Strike Phase 1
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: B-2	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0101127F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0101127F	5 / 79.267	- / 45.483	- / 2.006	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 126.756
Procurement												
Modification Item 1 of 1: Aircraft Cable												
A Kits												
Recurring												
Aircraft Cable:INSTALL KITS Group A (Active)	- / -	6 / 10.076	9 / 5.559	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / 15.635
Subtotal: Recurring	*- / -*	*- / 10.076*	*- / 5.559*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 15.635*
Subtotal: Aircraft Cable	*- / -*	*- / 10.076*	*- / 5.559*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 15.635*
Subtotal: Procurement, All Modification Items	*- / -*	*- / 10.076*	*- / 5.559*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 15.635*
Support *(All Modification Items)*												
SIM/TRAINER	- / -	- / -	0 / 0.748	0 / 0.930	- / -	0 / 0.930	0 / 0.331	- / -	- / -	- / -	- / -	0 / 2.009
PMA - Other Gov't Costs	- / -	- / 0.155	- / 0.351	- / 0.564	- / -	- / 0.564	- / 0.298	- / -	- / -	- / -	- / -	- / 1.368
Subtotal: Support	*- / -*	*- / 0.155*	*0 / 1.099*	*0 / 1.494*	*- / -*	*0 / 1.494*	*0 / 0.629*	*- / -*	*- / -*	*- / -*	*- / -*	*0 / 3.377*
Installation												
Modification Item 1 of 1: Aircraft Cable	- / -	- / -	- / -	4 / 6.168	- / -	4 / 6.168	8 / 4.265	4 / 0.000	- / -	- / -	- / -	16 / 10.433
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*4 / 6.168*	*- / -*	*4 / 6.168*	*8 / 4.265*	*4 / 0.000*	*- / -*	*- / -*	*- / -*	*16 / 10.433*
Total												
Total Cost (Procurement + Support + Installation)	**0.000**	**10.231**	**6.658**	**7.662**	**0.000**	**7.662**	**4.894**	**0.000**	**0.000**	**-**	**-**	**29.445**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 110054 / B-2 Flex Strike Phase 1
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 1: Aircraft Cable

Manufacturer Information

Manufacturer Name: Northrop Grumman	Manufacturer Location: Palmdale, CA
Administrative Leadtime *(in Months)*: 2	Production Leadtime *(in Months)*: 17

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Feb 2018	Jan 2019					
Delivery Dates	Jul 2019	Jun 2020					

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	4 / 6.168	- / -	4 / 6.168	3 / 1.599	- / -	- / -	- / -	- / -	7 / 7.767
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	5 / 2.666	4 / 0.000	- / -	- / -	- / -	9 / 2.666
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	4 / 6.168	- / -	4 / 6.168	8 / 4.265	4 / 0.000	- / -	- / -	- / -	16 / 10.433

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	1	3	2	1	1	4	2	2	-	-	-	-	-	-	-	-	-	-	0	16
Out	0	-	-	-	-	-	-	-	-	-	-	-	1	1	3	2	3	2	2	2	-	-	-	-	-	-	-	-	-	0	16

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 110056 / B61-12 Integration
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	0.000	27.514	0.000	0.000	0.000	0.000	0.000	-	-	-	27.514
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	0.000	27.514	0.000	0.000	0.000	0.000	0.000	-	-	-	27.514
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**0.000**	**27.514**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**-**	**-**	**-**	**27.514**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

B-2 is the threshold platform for the B61-12 weapon supporting the Joint Department of Defense and Department of Energy, National Nuclear Security Agency B61-12 Life Extension Program (LEP). The B61-12 LEP will consolidate four B61 weapon variants into one Mod 12 weapon preserving critical capability by addressing aging and decreased reliability. The B-2 B61-12 Integration program, interdependent with B61-12 LEP, will develop the interface between the weapon and the B-2 platform.

The RDT&E effort, funded under B61-12 weapon PE 0101125F, will develop the System 2 digital nuclear interface software for the B-2 Stores Management Operational Flight Program, modify the Rotary Launch Assembly (RLA) Test Program Sets, update the technical orders, and conduct flight test. The procurement effort, funded under B-2 PE 0101127F, will purchase 54 System 2 RLA modification kits and modify the B-2 support systems and related support equipment. Timely completion of the B61-12 weapon development effort is essential to meet the B-2 B61-12 LEP nuclear certification in FY2019. The B-2 B61-12 integration effort cannot be fielded prior to completion of the B-2 Flexible Strike Phase 1 Stores Management Operational Flight Program software re-host effort funded under Mod 110054.

Funds may be used to resolve emerging safety of flight and diminishing manufacturing sources issues, accommodate technology insertion and fulfill FAA or other mandates necessary to ensure continued aircrew safety and mission effectiveness. This may include lifetime buys of components and subassemblies where determined to be at risk of non-availability.

Milestone/Development Status

The B-2 B61-12 Integration EMD effort was awarded to NGC January 2015. The B-2 B61-12 Integration combined SRR/SFR occurred August 2015. The B-2 B61-12 Integration combined CDR/SDR occurred February 2016 with the start of developmental test beginning December 2016. The development effort is funded by the Air Force Nuclear Weapons Center, Nuclear Capabilities Directorate, PE 0101125F.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 110056 / B61-12 Integration
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: B-2	**Modification Type:** Capability Improvement	**Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: System 2 Configuration Cable												
B Kits												
Recurring												
System 2 Configuration Cable:EQUIPMENT Group B (Active)	- / -	- / -	54 / 25.854	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	54 / 25.854
Subtotal: Recurring	- / -	- / -	- / 25.854	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 25.854
Subtotal: System 2 Configuration Cable	- / -	- / -	- / 25.854	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 25.854
Subtotal: Procurement, All Modification Items	- / -	- / -	- / 25.854	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 25.854
Support *(All Modification Items)*												
PMA - Other Gov't Costs	- / -	- / -	- / 1.660	- / -	- / -	- / -	- / 0.000	- / -	- / -	- / -	- / -	- / 1.660
Subtotal: Support	- / -	- / -	- / 1.660	- / -	- / -	- / -	- / 0.000	- / -	- / -	- / -	- / -	- / 1.660
Installation												
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total												
Total Cost (Procurement + Support + Installation)	**0.000**	**0.000**	**27.514**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**-**	**-**	**-**	**27.514**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 110056 / B61-12 Integration

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 1: System 2 Configuration Cable

Manufacturer Information

Manufacturer Name: TBD

Manufacturer Location: TBD

Administrative Leadtime *(in Months)*: 0

Production Leadtime *(in Months)*: 18

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Feb 2018					
Delivery Dates		Aug 2019					

Installation Information

Method of Implementation (Organic): Org/Intermediate

Installation Quantity: 0

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 110057 / MGUE
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	4.034	10.704	0.578	0.000	0.578	0.990	0.000	0.000	-	-	16.306
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	4.034	10.704	0.578	0.000	0.578	0.990	0.000	0.000	-	-	16.306
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**4.034**	**10.704**	**0.578**	**0.000**	**0.578**	**0.990**	**0.000**	**0.000**	**-**	**-**	**16.306**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The MGUE (Military GPS User Equipment) program is a Department of Defense (DoD) initiative to upgrade the existing military GPS service to provide enhanced satellite acquisition and tracking, improved navigation accuracy and integrity monitoring, and increased security. Programs using military GPS services have recently been directed to integrate upgraded MGUE into applicable platforms and perform testing necessary for operational approval. The B-2 will serve as the lead platform for this GPS upgrade.

The B-2 MGUE integration program will replace the existing B-2 Miniaturized Airborne GPS Receiver (MAGR) and GPS antenna with a new M-Code GPS receiver (MAGR-M) and an 8-element Controlled Reception Pattern Antenna (CRPA). Initial fielding will be accomplished utilizing a 24 channel SAASM receiver. SAASM fielding keeps program on schedule with a 24 channel solution. Minor modifications will be made to aircraft Operational Flight Program (OFP) software and lab software to support processing, display, and operational testing involved with reception of the new satellite signals. Hardware modifications will include integration of the government furnished equipment MAGR-M and the GPS antenna, including associated Group A equipment.

The program will provide Integrated Functional Capability software updates, 20 aircraft kits, and updates to associated documents and technical data. Five kits were developed with Research Development Test and Evaluation (RDT&E) funds for four aircraft installs. The fifth development kit will be refurbished and utilized as a production install via procurement funding.

Procurement funding will purchase the remaining 15 kits/installs for a total of 20 aircraft. The FY-2019 PB shows a unit cost increase over prior years based on an increase from the initial cost estimate to the final production cost.

Funds may be used to resolve emerging safety of flight and diminishing manufacturing sources issues, accommodate technology insertion and fulfill FAA or other mandates necessary to ensure continued aircrew safety and mission effectiveness. This may include lifetime buys of components and subassemblies where determined to be at risk of non-availability.

Milestone/Development Status

As a threshold platform, the MGUE program is funding the B-2 integration. Initial planning was initiated with FY 2014 funds. The full integration contract was awarded in November 2015. The System Requirements Review completed August 2015. The program began developmental flight test in 2016.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 110057 / MGUE
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: B-2	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0101127F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Antenna Kit												
A Kits												
Recurring												
Antenna Kit:INSTALL KITS Group A (Active)	- / -	6 / 0.081	9 / 0.182	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / 0.263
Subtotal: Recurring	*- / -*	*- / 0.081*	*- / 0.182*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.263*
B Kits												
Recurring												
Antenna Kit:EQUIPMENT Group B (Active)	- / -	6 / 3.759	9 / 9.875	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / 13.634
Subtotal: Recurring	*- / -*	*- / 3.759*	*- / 9.875*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 13.634*
Subtotal: Antenna Kit	*- / -*	*- / 3.840*	*- / 10.057*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 13.897*
Subtotal: Procurement, All Modification Items	*- / -*	*- / 3.840*	*- / 10.057*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 13.897*
Support *(All Modification Items)*												
PMA - Other Gov't Costs	- / -	- / 0.194	- / 0.647	- / 0.027	- / -	- / 0.027	- / 0.058	- / -	- / -	- / -	- / -	- / 0.926
Subtotal: Support	*- / -*	*- / 0.194*	*- / 0.647*	*- / 0.027*	*- / -*	*- / 0.027*	*- / 0.058*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.926*
Installation												
Modification Item 1 of 1: Antenna Kit	- / -	- / -	- / -	4 / 0.551	- / -	4 / 0.551	8 / 0.932	4 / 0.000	- / -	- / -	- / -	16 / 1.483
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*4 / 0.551*	*- / -*	*4 / 0.551*	*8 / 0.932*	*4 / 0.000*	*- / -*	*- / -*	*- / -*	*16 / 1.483*
Total												
Total Cost (Procurement + Support + Installation)	**-**	**4.034**	**10.704**	**0.578**	**0.000**	**0.578**	**0.990**	**0.000**	**0.000**	**-**	**-**	**16.306**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 110057 / MGUE
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 1 of 1: Antenna Kit

Manufacturer Information

Manufacturer Name: Northrup Grumman	Manufacturer Location: El Segundo
Administrative Leadtime *(in Months)*: 2	Production Leadtime *(in Months)*: 17

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Feb 2018	Jan 2019					
Delivery Dates	Jul 2019	Jun 2020					

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	4 / 0.551	- / -	4 / 0.551	3 / 0.349	- / -	- / -	- / -	- / -	7 / 0.900
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.583	4 / 0.000	- / -	- / -	- / -	9 / 0.583
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	4 / 0.551	- / -	4 / 0.551	8 / 0.932	4 / 0.000	- / -	- / -	- / -	16 / 1.483

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	1	3	2	1	1	4	2	2	-	-	-	-	-	-	-	-	-	-	0	16
Out	0	-	-	-	-	-	-	-	-	-	-	-	1	1	3	2	3	2	2	2	-	-	-	-	-	-	-	-	-	0	16

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 110061 / IFF Mode 5/S/ADS-B Out
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	0.000	0.000	0.000	0.000	0.000	1.984	7.239	15.020	15.294	-	39.537
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	0.000	0.000	0.000	0.000	0.000	1.984	7.239	15.020	15.294	-	39.537
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**1.984**	**7.239**	**15.020**	**15.294**	**-**	**39.537**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

FY 2018 is the first year of development funds for B-2, IFF Mode 5/S.

The DoD established Global Air Traffic Management (GATM) - renamed Communications, Navigation, Surveillance/Air Traffic Management (CNS/ATM) - requirements in response to changes in global air traffic control procedures. Mode S/5 is a required element of CNS/ATM. Mode 5 Identification Friend or Foe (IFF) provides improved combat identification security with better discrimination between closely spaced platforms, while reducing interference with civil air traffic control transponders enabling the B-2 fleet to accomplish its anti-access and global strike mission. Mode S provides improved accuracy, altitude resolution and reduced interference from closely spaced aircraft through interrogation of assigned transponder addresses. Funding for this modification will be used for hardware and software changes, certification requirements, courseware updates and other items as determined necessary. Sixteen kits are planned with procurement dollars, and the remaining four kits funded with RDT&E. One of the EMD kits will be refurbished and installed with production funding.

Funds may be used to resolve emerging safety of flight and diminishing manufacturing sources issues, accommodate technology insertion and fulfill FAA or other mandates necessary to ensure continued aircrew safety and mission effectiveness.

Milestone/Development Status

The IFF Mode 5/S program will fund the B-2 integration. The initial integration contract leading to the System Requirements Review is planned to award in January 2018. The full integration program is planned to begin developmental flight test in 2019. Production will begin in 2020.

Aircraft Breakdown: ACTIVE 20, RESERVE 0, ANG 0, TOTAL 20

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 110061 / IFF Mode 5/S/ADS-B Out
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: B-2A	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0101127F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0101127F	- / -	- / -	2 / 7.687	2 / 18.139	- / -	2 / 18.139	- / 19.754	- / 3.039	- / -	- / -	- / -	4 / 48.619
Procurement												
Modification Item 1 of 1: Airspace Compliance												
A Kits												
Recurring												
Airspace Compliance:INSTALL KITS Group A (Active)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 1.002	10 / 1.900	- / -	- / -	16 / 2.902
Subtotal: Recurring	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.002	- / 1.900	- / -	- / -	- / 2.902
Subtotal: Airspace Compliance	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.002	- / 1.900	- / -	- / -	- / 2.902
Subtotal: Procurement, All Modification Items	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.002	- / 1.900	- / -	- / -	- / 2.902
Support *(All Modification Items)*												
OTHER GOVT	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.911	- / 5.751	- / 7.130	- / 3.002	- / -	- / 17.794
PMA - Other Gov't Costs	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.073	- / 0.486	- / 3.009	- / 3.322	- / -	- / 6.890
Subtotal: Support	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.984	- / 6.237	- / 10.139	- / 6.324	- / -	- / 24.684
Installation												
Modification Item 1 of 1: Airspace Compliance	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 2.981	10 / 8.970	- / -	17 / 11.951
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 2.981	10 / 8.970	- / -	17 / 11.951
Total												
Total Cost (Procurement + Support + Installation)	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**1.984**	**7.239**	**15.020**	**15.294**	**-**	**39.537**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 110061 / IFF Mode 5/S/ADS-B Out

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 1: Airspace Compliance

Manufacturer Information

Manufacturer Name: TBD

Manufacturer Location: TBD

Administrative Leadtime *(in Months)*: 3

Production Leadtime *(in Months)*: 21

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates				Jan 2020	Jan 2021		
Delivery Dates				Oct 2021	Oct 2022		

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 2.981	- / -	- / -	7 / 2.981
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 8.970	- / -	10 / 8.970
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 2.981	10 / 8.970	- / -	17 / 11.951

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	2	2	3	3	2	2	0	17
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	2	2	3	3	2	2	0	17

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 110062 / Crash Survivable Memory Unit (CSMU)
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	0.000	0.000	0.000	0.000	0.000	2.480	0.793	1.601	1.631	-	6.505
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	0.000	0.000	0.000	0.000	0.000	2.480	0.793	1.601	1.631	-	6.505
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**2.480**	**0.793**	**1.601**	**1.631**	**-**	**6.505**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Funds will be used to procure a replacement Crash Survivable Memory Unit (CSMU) (recorder) and to modify the Flight Data Recorder Processor to provide a more capable crash survivable flight data system. The legacy CSMU has obsolescence and is no longer procurable.
Aircraft Breakdown: ACTIVE 20, RESERVE 0, ANG 0, TOTAL 20

Funds may be used to resolve emerging safety of flight and diminishing manufacturing sources issues, accommodate technology insertion and fulfill FAA or other mandates necessary to ensure continued aircrew safety and mission effectiveness.

Milestone/Development Status

CMSU development activities begin in FY 2018. The development effort is funded in PE 0101127F.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 110062 / Crash Survivable Memory Unit (CSMU)
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: B-2A	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0101127F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0101127F	- / -	- / -	- / -	1 / 2.450	- / -	1 / 2.450	- / -	- / -	- / -	- / -	- / -	1 / 2.450
Procurement												
Modification Item 1 of 1: CSMU												
A Kits												
Recurring												
CSMU:INSTALL KITS Group A (Active)	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.225	10 / 0.750	6 / 0.600	2 / 0.375	- / -	19 / 1.950
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.225*	*- / 0.750*	*- / 0.600*	*- / 0.375*	*- / -*	*- / 1.950*
Subtotal: CSMU	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.225*	*- / 0.750*	*- / 0.600*	*- / 0.375*	*- / -*	*- / 1.950*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.225*	*- / 0.750*	*- / 0.600*	*- / 0.375*	*- / -*	*- / 1.950*
Support *(All Modification Items)*												
GROUP A: TOTAL NONRECURRING	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.153	- / 0.008	- / 0.882	- / 1.234	- / -	- / 4.277
PMA - Other Gov't Costs	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.102	- / 0.035	- / 0.119	- / 0.022	- / -	- / 0.278
Subtotal: Support	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 2.255*	*- / 0.043*	*- / 1.001*	*- / 1.256*	*- / -*	*- / 4.555*
Installation												
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*
Total												
Total Cost (Procurement + Support + Installation)	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**2.480**	**0.793**	**1.601**	**1.631**	**-**	**6.505**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 110062 / Crash Survivable Memory Unit (CSMU)

ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**

Modification Item 1 of 1: CSMU

Manufacturer Information

Manufacturer Name: TBD	Manufacturer Location: TBD
Administrative Leadtime *(in Months)*: 4	Production Leadtime *(in Months)*: 8

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates				Feb 2020	Feb 2021	Feb 2022	Feb 2023
Delivery Dates				Oct 2020	Oct 2021	Oct 2022	Oct 2023

Installation Information

Method of Implementation (Organic): Org/Intermediate	**Installation Quantity:** 0

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 110064 / Rotary Launcher Assembly (RLA) Service Life Extension Program
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	7.537	7.675	-	15.212
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	7.537	7.675	-	15.212
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**7.537**	**7.675**	**-**	**15.212**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The B-2 Rotary Launcher Assembly provides the mechanical and electrical interface and release mechanism for both nuclear and conventional weapons to the B-2A aircraft. The 54 launchers are managed as alternate mission equipment and are either loaded with specific nuclear packages and are held in varying postures to support USSTRATCOM requirements or held empty and on-call to support emerging conventional requirements. The B-2 RLA Service Life Extension Program (SLEP) implements maintenance improvements on internal and external cabling to ensure the reliability, availability and maintainability of the RLA fleet through the service life of the B-2A aircraft. This modification is necessary to limit high maintenance downtime and reduction in availability rates (which adversely impacts operations tempo) and reduce overall maintenance costs over the life cycle of the RLA. This program provides for the engineering development and testing of the improved cabling design as well as the procurement of 54 kits to outfit all B-2 RLAs. The B-2 RLA SLEP program directly impacts RLA availability and so, the ability for the B-2A to meet nuclear and conventional Designated Operational Capability (DOC) statements.

Funds may be used to resolve emerging safety of flight and diminishing manufacturing sources issues, accommodate technology insertion and fulfill FAA or other mandates necessary to ensure continued aircrew safety and mission effectiveness.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 110064 / Rotary Launcher Assembly (RLA) Service Life Extension Program
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: B-2A	**Modification Type:** Service Life Extension	**Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: RLA												
A Kits												
Recurring												
RLA:INSTALL KITS Group A (Active)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / 7.537	- / 7.675	- / -	15 / 15.212
Subtotal: Recurring	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 7.537	- / 7.675	- / -	- / 15.212
Subtotal: RLA	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 7.537	- / 7.675	- / -	- / 15.212
Subtotal: Procurement, All Modification Items	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 7.537	- / 7.675	- / -	- / 15.212
Installation												
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total												
Total Cost (Procurement + Support + Installation)	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**7.537**	**7.675**	**-**	**15.212**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 110064 / Rotary Launcher Assembly (RLA) Service Life Extension Program

ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**

Modification Item 1 of 1: RLA

Manufacturer Information

Manufacturer Name: Unknown	Manufacturer Location: Unknown
Administrative Leadtime *(in Months)*: 0	Production Leadtime *(in Months)*: 0

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation (Organic): Org/Intermediate	**Installation Quantity:** 15

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 110065 / B-2 GBU-57 MOP Integration
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	0.000	20.032	19.787	0.000	19.787	0.000	0.000	0.000	-	-	39.819
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	0.000	20.032	19.787	0.000	19.787	0.000	0.000	0.000	-	-	39.819
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**0.000**	**20.032**	**19.787**	**0.000**	**19.787**	**0.000**	**0.000**	**0.000**	**-**	**-**	**39.819**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Procure additional Monitor and Control Equipment (MACE), the B-2 hardware controller for the GBU-57 Massive Ordnance Penetrator.

Contract and Delivery dates: TBD

Milestone/Development Status

Development of the basic MACE is complete.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 110065 / B-2 GBU-57 MOP Integration
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: B-2A	**Modification Type:** Capability Improvement	**Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Monitor and Control Equipment (MACE)												
A Kits												
Recurring												
Monitor and Control Equipment (MACE):INSTALL KITS Group A (Active)	- / -	- / -	7 / 16.313	9 / 15.130	- / -	9 / 15.130	- / -	- / -	- / -	- / -	- / -	16 / 31.443
Subtotal: Recurring	- / -	- / -	- / 16.313	- / 15.130	- / -	- / 15.130	- / -	- / -	- / -	- / -	- / -	- / 31.443
Subtotal: Monitor and Control Equipment (MACE)	- / -	- / -	- / 16.313	- / 15.130	- / -	- / 15.130	- / -	- / -	- / -	- / -	- / -	- / 31.443
Subtotal: Procurement, All Modification Items	- / -	- / -	- / 16.313	- / 15.130	- / -	- / 15.130	- / -	- / -	- / -	- / -	- / -	- / 31.443
Support *(All Modification Items)*												
OTHER GOVT	- / -	- / -	- / 2.719	- / 3.708	- / -	- / 3.708	- / -	- / -	- / -	- / -	- / -	- / 6.427
PMA - Other Gov't Costs	- / -	- / -	- / 1.000	- / 0.949	- / -	- / 0.949	- / -	- / -	- / -	- / -	- / -	- / 1.949
Subtotal: Support	- / -	- / -	- / 3.719	- / 4.657	- / -	- / 4.657	- / -	- / -	- / -	- / -	- / -	- / 8.376
Installation												
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total												
Total Cost (Procurement + Support + Installation)	**0.000**	**0.000**	**20.032**	**19.787**	**0.000**	**19.787**	**0.000**	**0.000**	**0.000**	**-**	**-**	**39.819**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 110065 / B-2 GBU-57 MOP Integration

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 1: Monitor and Control Equipment (MACE)

Manufacturer Information

Manufacturer Name: TBD	Manufacturer Location: TBD
Administrative Leadtime *(in Months)*: 0	Production Leadtime *(in Months)*: 0

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation (Organic): Org/Intermediate	**Installation Quantity:** 0

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 8882 / Common Very Low Frequency Terminal
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	24.264	18.592	10.610	7.051	0.000	7.051	2.376	-	-	-	-	62.893
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	24.264	18.592	10.610	7.051	0.000	7.051	2.376	-	-	-	-	62.893
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**24.264**	**18.592**	**10.610**	**7.051**	**0.000**	**7.051**	**2.376**	**-**	**-**	**-**	**-**	**62.893**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	2.036	2.578	-	-	-	-	-	-	-	-	4.614
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Common Very Low Frequency (VLF) Receiver (CVR) Increment 1 program provides the B-2 with receive-only, very low bandwidth, secure, survivable strategic communications via a nuclear hardened terminal, antenna, and human-machine interface. This supports the B-2 requirement for media diversity and the B-2 strategic mission, and ensures nuclear command and control of the B-2 fleet. The uncertain usable life span of the MILSTAR satellite constellation and the B-2 Ultra High Frequency secure waveform drive a need for VLF capability in 1Q FY 2019.

CVR Increment 1 will deliver VLF capability needed for B-2 strategic nuclear command and control. This program provides the framework and flexibility to enable future increments for the remainder of the strategic airborne fleet as well as a bridge to future VLF upgrades to the B-2.

The program's acquisition strategy is based on modifying and qualifying an existing terminal. This approach supports timely integration and installation onto the B-2 platform while leveraging existing technology and mature systems to reduce cost and development schedule. During development, four production representative kits will be procured to support integrated development/operational test. During production, the program will optimize cost efficiency of FY 2016 and FY 2017 lot buys by enabling continuous production of the Group B kits. To mitigate obsolescence risk and ensure availability of certified nuclear hardened components and sub-assemblies, the program will procure all components and/or sub-assemblies that are subject to nuclear screening in one production buy and procure lifetime buys of other items as needed.

Funds may be used to resolve emerging safety of flight and diminishing manufacturing sources issues, accommodate technology insertion and fulfill FAA or other mandates necessary to ensure continued aircrew safety and mission effectiveness.

The FY-2019 PB shows a unit cost increase over prior years based on an increase from the initial cost estimate to the final production cost.

Milestone/Development Status

Common Very Low Frequency Receiver conducted a Milestone B decision in July 2013. Engineering and Manufacturing Development contracts were awarded December 2013 for Group B line replaceable units (LRUs) and June 2014 for Group A cabling, technical data, installation hardware, and aircraft installation. The Government has assumed responsibility for system integration and installed performance. Technical progress continues with successful Government led technical reviews occurring as scheduled. Reviews include a System Functional Review conducted in May 2014, the Preliminary Design Review conducted November 2014, and a Critical Design Review held in May 2015. Hardware qualification completed June 2016. Additionally, certifications completed June 2016 and installation of flight test hardware completed July 2016. Combined DT/OT in 4Q FY 2016. Successful Milestone C occurred December 2016.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 8882 / Common Very Low Frequency Terminal
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: B-2	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0101127F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0101127F	4 / 107.052	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 107.052
Procurement												
Modification Item 1 of 1: Antenna												
A Kits												
Recurring												
Antenna:INSTALL KITS Group A (Active)	11 / 16.730	5 / 5.338	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 22.068
Subtotal: Recurring	*- / 16.730*	*- / 5.338*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 22.068*
B Kits												
Recurring												
Antenna:EQUIPMENT Group B (Active)	11 / 6.536	5 / 3.529	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 10.065
Subtotal: Recurring	*- / 6.536*	*- / 3.529*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 10.065*
Subtotal: Antenna	*- / 23.266*	*- / 8.867*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 32.133*
Subtotal: Procurement, All Modification Items	*- / 23.266*	*- / 8.867*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 32.133*
Support *(All Modification Items)*												
Change Orders	- / 0.998	- / 2.302	- / 0.443	- / 0.000	- / -	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / 3.743
OTHER GOVT	- / -	- / 7.423	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 7.423
PMA - Other Gov't Costs	- / -	- / -	- / 2.731	- / 0.848	- / -	- / 0.848	- / 0.393	- / -	- / -	- / -	- / -	- / 3.972
Subtotal: Support	*- / 0.998*	*- / 9.725*	*- / 3.174*	*- / 0.848*	*- / -*	*- / 0.848*	*- / 0.393*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 15.138*
Installation												
Modification Item 1 of 1: Antenna	- / -	- / -	3 / 7.436	8 / 6.203	- / -	8 / 6.203	5 / 1.983	- / -	- / -	- / -	- / -	16 / 15.622
Subtotal: Installation	*- / -*	*- / -*	*3 / 7.436*	*8 / 6.203*	*- / -*	*8 / 6.203*	*5 / 1.983*	*- / -*	*- / -*	*- / -*	*- / -*	*16 / 15.622*
Total												
Total Cost (Procurement + Support + Installation)	**24.264**	**18.592**	**10.610**	**7.051**	**0.000**	**7.051**	**2.376**	**-**	**-**	**-**	**-**	**62.893**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 8882 / Common Very Low Frequency Terminal

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 1: Antenna

Manufacturer Information

Manufacturer Name: Various

Manufacturer Location: Various

Administrative Leadtime *(in Months)*: 10

Production Leadtime *(in Months)*: 13

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Feb 2017						
Delivery Dates	Jun 2018						

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	3 / 7.436	8 / 6.203	- / -	8 / 6.203	- / -	- / -	- / -	- / -	- / -	11 / 13.639
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	5 / 1.983	- / -	- / -	- / -	- / -	5 / 1.983
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	3 / 7.436	8 / 6.203	- / -	8 / 6.203	5 / 1.983	- / -	- / -	- / -	- / -	16 / 15.622

Installation Schedule

		FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023					
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	0	-	-	-	-	-	-	2	1	2	2	2	2	2	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	0	16
Out	0	-	-	-	-	-	-	2	1	2	2	2	2	2	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	0	16

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 1 / B-2 Low Cost Engine Modifications
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	18.186	0.000	0.718	0.723	0.000	0.723	0.736	0.751	0.766	0.780	-	22.660
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	18.186	0.000	0.718	0.723	0.000	0.723	0.736	0.751	0.766	0.780	-	22.660
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**18.186**	**0.000**	**0.718**	**0.723**	**0.000**	**0.723**	**0.736**	**0.751**	**0.766**	**0.780**	**-**	**22.660**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The B-2 Engine Modification program implements performance and maintenance improvements, as well as, safety mods on the F118-GE-100 Engine. This program procures kits/installs such as, but not limited to; changes to braces/brackets, damper configurations, bearing/retainer nut designs, retention straps, fan blades, gearbox mounts, engine sensors and de-icing structures. These engine upgrades are necessary to maintain commonality with the F110 engine core and reduce maintenance and repair costs of divergent engine configurations. Additionally, other engine safety, reliability, and supportability modifications may materialize during the FYDP that cannot be predicted at this time but must be addressed rapidly to counter catastrophic engine loss, reduction of combat operations tempo, or high operational and maintenance costs.
Aircraft Breakdown: ACTIVE 20, RESERVE 0, ANG 0, TOTAL 20

Funds may be used to resolve emerging safety of flight and diminishing manufacturing sources issues, accommodate technology insertion and fulfill FAA or other mandates necessary to ensure continued aircrew safety and mission effectiveness.

Milestone/Development Status

Required development effort is funded through the Air Force Engine Component Improvement Program.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 1 / B-2 Low Cost Engine Modifications
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: B-2	**Modification Type:** Reliability & Maintainability	**Related RDT&E PEs:** 0101127F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Engine Low Cost Mods												
B Kits												
Recurring												
Engine Low Cost Mods:EQUIPMENT Group B (Active)	0 / 18.083	- / 0.000	- / 0.674	0 / 0.671	- / -	0 / 0.671	- / 0.690	- / 0.690	- / 0.578	- / 0.606	- / -	0 / 21.992
Subtotal: Recurring	*- / 18.083*	*- / 0.000*	*- / 0.674*	*- / 0.671*	*- / - /*	*- / 0.671*	*- / 0.690*	*- / 0.690*	*- / 0.578*	*- / 0.606*	*- / - /*	*- / 21.992*
Subtotal: Engine Low Cost Mods	*- / 18.083*	*- / 0.000*	*- / 0.674*	*- / 0.671*	*- / - /*	*- / 0.671*	*- / 0.690*	*- / 0.690*	*- / 0.578*	*- / 0.606*	*- / - /*	*- / 21.992*
Subtotal: Procurement, All Modification Items	*- / 18.083*	*- / 0.000*	*- / 0.674*	*- / 0.671*	*- / - /*	*- / 0.671*	*- / 0.690*	*- / 0.690*	*- / 0.578*	*- / 0.606*	*- / - /*	*- / 21.992*
Support *(All Modification Items)*												
PMA - Other Gov't Costs	- / 0.103	- / -	- / 0.044	- / 0.052	- / -	- / 0.052	- / 0.046	- / 0.061	- / 0.188	- / 0.174	- / -	- / 0.668
Subtotal: Support	*- / 0.103*	*- / - /*	*- / 0.044*	*- / 0.052*	*- / - /*	*- / 0.052*	*- / 0.046*	*- / 0.061*	*- / 0.188*	*- / 0.174*	*- / - /*	*- / 0.668*
Installation												
Subtotal: Installation	*- / - /*	*- / - /*	*- / - /*	*- / - /*	*- / - /*	*- / - /*	*- / - /*	*- / - /*	*- / - /*	*- / - /*	*- / - /*	*- / - /*
Total												
Total Cost (Procurement + Support + Installation)	**18.186**	**0.000**	**0.718**	**0.723**	**0.000**	**0.723**	**0.736**	**0.751**	**0.766**	**0.780**	**-**	**22.660**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 1 / B-2 Low Cost Engine Modifications

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 1 of 1: Engine Low Cost Mods

Manufacturer Information

Manufacturer Name: Unknown

Manufacturer Location: Unknown

Administrative Leadtime *(in Months)*: 0

Production Leadtime *(in Months)*: 0

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation (Organic): Org/Intermediate

Installation Quantity: 0

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 2 / Low Cost Modifications
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	19.878	0.000	0.613	0.619	0.000	0.619	0.630	0.641	0.673	0.666	-	23.720
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	19.878	0.000	0.613	0.619	0.000	0.619	0.630	0.641	0.673	0.666	-	23.720
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**19.878**	**0.000**	**0.613**	**0.619**	**0.000**	**0.619**	**0.630**	**0.641**	**0.673**	**0.666**	**-**	**23.720**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Airframe Low Cost Modifications improve maintainability and reduce maintenance man-hour costs associated with flying a low-density high demand aircraft and are used to satisfy unforeseen airframe requirements. Ongoing modification efforts include, but are not limited to, thrust control actuator, radar antenna lift fixture, KIV5 relocation, ruggedized ART handle and aft rack fan cannon plug replacement. The Airframe Low Cost Modifications program directly addresses B-2 Aircraft Availability, the primary stated B-2 user requirement. These airframe modifications will directly improve B-2 availability through the improvement of corollary life cycle issues (reliability, maintainability, supportability).

Aircraft Breakdown: ACTIVE 20, RESERVE 0, ANG 0, TOTAL 20

Funds may be used to resolve emerging safety of flight and diminishing manufacturing sources issues, accommodate technology insertion and fulfill FAA or other mandates necessary to ensure continued aircrew safety and mission effectiveness.

Milestone/Development Status

All current efforts are production only.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 2 / Low Cost Modifications
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: B-2	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0101127F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Airframe Low Cost Mods												
B Kits												
Recurring												
Airframe Low Cost Mods:EQUIPMENT Group B (Active)	- / 19.802	- / -	- / 0.576	- / 0.575	- / -	- / 0.575	- / 0.592	- / 0.590	- / 0.522	- / 0.527	- / -	- / 23.184
Subtotal: Recurring	*- / 19.802*	*- / -*	*- / 0.576*	*- / 0.575*	*- / -*	*- / 0.575*	*- / 0.592*	*- / 0.590*	*- / 0.522*	*- / 0.527*	*- / -*	*- / 23.184*
Subtotal: Airframe Low Cost Mods	*- / 19.802*	*- / -*	*- / 0.576*	*- / 0.575*	*- / -*	*- / 0.575*	*- / 0.592*	*- / 0.590*	*- / 0.522*	*- / 0.527*	*- / -*	*- / 23.184*
Subtotal: Procurement, All Modification Items	*- / 19.802*	*- / -*	*- / 0.576*	*- / 0.575*	*- / -*	*- / 0.575*	*- / 0.592*	*- / 0.590*	*- / 0.522*	*- / 0.527*	*- / -*	*- / 23.184*
Support *(All Modification Items)*												
PMA - Other Gov't Costs	- / 0.076	- / -	- / 0.037	- / 0.044	- / -	- / 0.044	- / 0.038	- / 0.051	- / 0.151	- / 0.139	- / -	- / 0.536
Subtotal: Support	*- / 0.076*	*- / -*	*- / 0.037*	*- / 0.044*	*- / -*	*- / 0.044*	*- / 0.038*	*- / 0.051*	*- / 0.151*	*- / 0.139*	*- / -*	*- / 0.536*
Installation												
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*
Total												
Total Cost (Procurement + Support + Installation)	**19.878**	**0.000**	**0.613**	**0.619**	**0.000**	**0.619**	**0.630**	**0.641**	**0.673**	**0.666**	**-**	**23.720**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B00200 / B-2A	**Modification Number / Title:** 2 / Low Cost Modifications

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 1 of 1: Airframe Low Cost Mods

Manufacturer Information

Manufacturer Name: Unknown

Manufacturer Location: Unknown

Administrative Leadtime *(in Months)*: 0

Production Leadtime *(in Months)*: 0

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation (Organic): Org/Intermediate

Installation Quantity: 0

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 1: Strategic Aircraft	**P-1 Line Item Number / Title:** B01B00 / B-1B

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0101126F	Other Related Program Elements: 0101126F

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	845.445	150.319	155.634	51.290	4.000	55.290	86.343	122.281	85.648	74.079	-	1,575.039
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	845.445	150.319	155.634	51.290	4.000	55.290	86.343	122.281	85.648	74.079	-	1,575.039
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**845.445**	**150.319**	**155.634**	**51.290**	**4.000**	**55.290**	**86.343**	**122.281**	**85.648**	**74.079**	**-**	**1,575.039**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The B-1B Lancer is a swing-wing, supersonic, long-range, conventional bomber. It carries the largest payload of both guided and unguided weapons in the Air Force inventory. The multi-mission B-1B is the backbone of America's long-range bomber force and can rapidly deliver massive quantities of precision and non-precision weapons against any adversary, anywhere in the world, at any time. The Air Force maintains 62 B-1B's in its inventory. The B-1B averages 7,799 airframe hours as of July, 2016 (Source LIMS-EV). The current service life extends beyond 2040. Funding may be used to address Diminishing Manufacturing Sources (DMS) issues. The specific modifications budgeted and programmed are below.

This line item funds modifications to the B-1B aircraft and associated simulators and equipment. Funding for this exhibit contained in PE 0101126F.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	150.319	155.634	51.290	4.000	55.290	86.343	122.282	85.648	74.079
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**150.319**	**155.634**	**51.290**	**4.000**	**55.290**	**86.343**	**122.282**	**85.648**	**74.079**

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 1: Strategic Aircraft

P-1 Line Item Number / Title:
B01B00 / B-1B

ID Code (A=Service Ready, B=Not Service Ready): B | **Program Elements for Code B Items:** 0101126F | **Other Related Program Elements:** 0101126F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	4291 / B-1 TRAINING SUPPORT (Capability Improvement)				- / 2.543	- / 0.438	- / 0.448	- / 0.450	- / -	- / 0.450
P-40a***	8423 / B-1 Link 16 Crypto (Other)				- / 1.234	- / 1.380	- / 0.100	- / -	- / -	- / -
P-40a***	92294 / LAPTOP CONTROLLED TARGETING POD (Capability Improvement)				- / 76.971	- / 0.200	- / 6.401	- / 0.397	- / 4.000	- / 4.397
P-40a***	92299 / F-101 Engine SLEP (Service Life Extension)				- / 161.778	- / 34.000	- / 34.000	- / -	- / -	- / -
P-40a***	92314 / MIDS-JTRS (Capability Improvement)				- / -	- / -	- / -	- / 3.719	- / -	- / 3.719
P-40a***	92315 / Fully Integrated Targeting Pod (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / -
P-40a***	92316 / Radio Crypto Compliance (Capability Improvement)				- / -	- / -	- / -	- / 1.181	- / -	- / 1.181
P-40a***	92317 / IFF Mode 5/S ADS-B (Capability Improvement)				- / -	- / -	- / -	- / 1.300	- / -	- / 1.300
P-40a***	92318 / BRU-56 (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / -
P-40a***	99999X / Low Cost Modifications (Capability Improvement)				- / 5.073	- / 0.100	- / 1.400	- / 0.198	- / -	- / 0.198
P-3a	4280 / Fully Integrated Data Links (Capability Improvement)		B		- / 314.515	- / 56.773	- / 50.032	- / 16.338	- / 0.000	- / 16.338
P-3a	4284 / CITS UPGRADE (Service Life Extension)		B		- / 88.381	- / 14.637	- / 15.993	- / 11.271	- / 0.000	- / 11.271
P-3a	8971 / VERTICAL SITUATION DISPLAYS (Service Life Extension)		B		- / 194.950	- / 42.791	- / 47.260	- / 16.436	- / 0.000	- / 16.436
P-40	**Total Gross/Weapon System Cost**				**- / 845.445**	**- / 150.319**	**- / 155.634**	**- / 51.290**	**- / 4.000**	**- / 55.290**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	4291 / B-1 TRAINING SUPPORT (Capability Improvement)				- / 0.458	- / 0.467	- / 0.476	- / 0.485	- / -	- / 5.765
P-40a***	8423 / B-1 Link 16 Crypto (Other)				- / -	- / -	- / -	- / -	- / -	- / 2.714
P-40a***	92294 / LAPTOP CONTROLLED TARGETING POD (Capability Improvement)				- / 0.397	- / 0.397	- / 0.198	- / 0.202	- / -	- / 89.163
P-40a***	92299 / F-101 Engine SLEP (Service Life Extension)				- / -	- / -	- / -	- / -	- / -	- / 229.778
P-40a***	92314 / MIDS-JTRS (Capability Improvement)				- / 11.802	- / 16.084	- / 8.925	- / -	- / -	- / 40.530
P-40a***	92315 / Fully Integrated Targeting Pod (Capability Improvement)				- / 21.228	- / 25.099	- / 3.967	- / -	- / -	- / 50.294
P-40a***	92316 / Radio Crypto Compliance (Capability Improvement)				- / 6.510	- / 14.717	- / 15.380	- / 15.659	- / -	- / 53.447
P-40a***	92317 / IFF Mode 5/S ADS-B (Capability Improvement)				- / 9.153	- / 12.689	- / 14.348	- / 14.609	- / -	- / 52.099
P-40a***	92318 / BRU-56 (Capability Improvement)				- / 2.669	- / 30.331	- / 41.742	- / 42.500	- / -	- / 117.242
P-40a***	99999X / Low Cost Modifications (Capability Improvement)				- / 0.249	- / 1.487	- / 0.099	- / 0.101	- / -	- / 8.707
P-3a	4280 / Fully Integrated Data Links (Capability Improvement)		B		- / 16.202	- / 11.596	- / 0.404	- / 0.412	- / -	- / 466.272
P-3a	4284 / CITS UPGRADE (Service Life Extension)		B		- / 2.752	- / 0.793	- / 0.109	- / 0.111	- / -	- / 134.047
P-3a	8971 / VERTICAL SITUATION DISPLAYS (Service Life Extension)		B		- / 14.923	- / 8.622	- / 0.000	- / 0.000	- / -	- / 324.982
P-40	**Total Gross/Weapon System Cost**				**- / 86.343**	**- / 122.281**	**- / 85.648**	**- / 74.079**	**- / -**	**- / 1,575.039**

*** Although this is an Exhibit P-40a item, the actual exhibit is not included since all of the required information for this item is already being shown here.

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 1: Strategic Aircraft	**P-1 Line Item Number / Title:** B01B00 / B-1B	
ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0101126F	**Other Related Program Elements:** 0101126F
Line Item MDAP/MAIS Code: N/A		
*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.		
Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.		

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B01B00 / B-1B	**Modification Number / Title:** 4280 / Fully Integrated Data Links
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	314.515	56.773	50.032	16.338	0.000	16.338	16.202	11.596	0.404	0.412	-	466.272
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	314.515	56.773	50.032	16.338	0.000	16.338	16.202	11.596	0.404	0.412	-	466.272
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**314.515**	**56.773**	**50.032**	**16.338**	**0.000**	**16.338**	**16.202**	**11.596**	**0.404**	**0.412**	**-**	**466.272**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Fully Integrated Data Link (FIDL) is a net-centric warfare upgrade enabling full B-1B participation in joint combat and time-critical targeting operations. FIDL adds line-of-sight and beyond line-of-sight command and control (C2) connectivity through the addition of Link 16 and Joint Range Extension (JRE) data link. Modification funds will procure and install Group A and B kits for the FIDL upgrade to the B-1B. This modification provides two tactical data processors and five multi-function displays for the B-1B aft crew stations. This modification also adds an Ethernet infrastructure enabling rapid airborne re-targeting by high-speed transfer of aircraft information to all four crew stations and on-board weapons. FIDL installations are scheduled concurrently with Central Integrated Test System (CITS) and Vertical Situation Display Upgrade (VSDU) to reduce installation costs, aircraft downtime, and to keep fielded aircraft configurations to a minimum for aircrew training, maintenance, and operational deployment efficiencies. Modification funding is being used to alleviate Diminishing Manufacturing Sources (DMS) and Material Shortages (DMSMS) issues. DMSMS activities can include, but are not limited to, life of type buy or minor redesign. Procurement modification funding will be used to establish depot repair capability and for Interim Contractor Support (ICS). Activities comprised in the equipment non-recurring line include, but are not limited to, production test equipment and tooling. Group B non-recurring also includes Systems Engineering Program Management (SEPM).

Requirement list in ORD: B-1B Conventional Mission Upgrade Program (26 Jan 05) (ORD CAF-357-92 (SAC 007-92) I/II-A, Rev 2, Annex A).

Milestone/Development Status

EMD phase completed (Oct 2011)

Two aircraft were modified using Research Development Test and Evaluation (RDT&E) funding in PE 0604226F / 0101126F.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	56.773	50.032	16.338	-	16.338	16.202	11.596	0.404	0.412
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**56.773**	**50.032**	**16.338**	**0.000**	**16.338**	**16.202**	**11.596**	**0.404**	**0.412**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B01B00 / B-1B	**Modification Number / Title:** 4280 / Fully Integrated Data Links
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: B-1B	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0101126F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0101126F	- / 162.988	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 162.988
Procurement												
Modification Item 1 of 1: IBS												
A Kits												
Recurring												
IBS:INSTALL KITS Group A (Active)	60 / 26.375	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	60 / 26.375
Subtotal: Recurring	*- / 26.375*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 26.375*
B Kits												
Recurring												
IBS:EQUIPMENT Group B (Active)	60 / 136.174	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	60 / 136.174
Subtotal: Recurring	*- / 136.174*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 136.174*
Subtotal: IBS	*- / 162.549*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 162.549*
Subtotal: Procurement, All Modification Items	*- / 162.549*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 162.549*
Support *(All Modification Items)*												
GROUP B: TOTAL NONRECURRING	- / 37.621	- / 2.750	- / 2.052	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 42.423
Change Orders	- / 17.058	- / 13.576	- / 2.823	- / -	- / -	- / -	- / 5.830	- / 3.144	- / -	- / -	- / -	- / 42.431
Data	- / 2.426	- / 0.011	- / 0.011	- / 0.235	- / -	- / 0.235	- / -	- / 0.150	- / -	- / -	- / -	- / 2.833
SIM/TRAINER	2 / 5.771	4 / 3.462	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 9.233
SUPPORT-EQUIP	- / 28.714	- / 12.869	- / 1.396	- / -	- / -	- / -	- / 4.000	- / 1.500	- / -	- / -	- / -	- / 48.479
ICS-Material	- / 8.300	- / 7.514	- / 8.047	- / 3.224	- / -	- / 3.224	- / 6.272	- / 3.402	- / 0.354	- / 0.362	- / -	- / 37.475
OTHER GOVT	- / 12.334	- / 6.116	- / 22.864	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 41.314
PMA - Contractor Services	- / 5.598	- / -	- / 1.672	- / -	- / -	- / -	- / -	- / 3.300	- / -	- / -	- / -	- / 10.570
PMA - Other Gov't Costs	- / 0.368	- / 0.100	- / 0.100	- / 0.100	- / -	- / 0.100	- / 0.100	- / 0.100	- / 0.050	- / 0.050	- / -	- / 0.968
Subtotal: Support	*2 / 118.190*	*4 / 46.398*	*- / 38.965*	*- / 3.559*	*- / -*	*- / 3.559*	*- / 16.202*	*- / 11.596*	*- / 0.404*	*- / 0.412*	*- / -*	*6 / 235.726*
Installation												
Modification Item 1 of 1: IBS	30 / 33.776	10 / 10.375	10 / 11.067	10 / 12.779	- / -	10 / 12.779	- / -	- / -	- / -	- / -	- / -	60 / 67.997
Subtotal: Installation	*30 / 33.776*	*10 / 10.375*	*10 / 11.067*	*10 / 12.779*	*- / -*	*10 / 12.779*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*60 / 67.997*
Total												
Total Cost (Procurement + Support + Installation)	**314.515**	**56.773**	**50.032**	**16.338**	**0.000**	**16.338**	**16.202**	**11.596**	**0.404**	**0.412**	**-**	**466.272**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B01B00 / B-1B	**Modification Number / Title:** 4280 / Fully Integrated Data Links
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 1: IBS

Manufacturer Information

Manufacturer Name: Boeing	Manufacturer Location: Oklahoma City, OK
Administrative Leadtime *(in Months)*: 4	Production Leadtime *(in Months)*: 20

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	30 / 33.776	10 / 10.375	10 / 11.067	10 / 12.779	- / -	10 / 12.779	- / -	- / -	- / -	- / -	- / -	60 / 67.997
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	30 / 33.776	10 / 10.375	10 / 11.067	10 / 12.779	- / -	10 / 12.779	- / -	- / -	- / -	- / -	- / -	60 / 67.997

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	30	2	3	2	3	2	3	2	3	2	3	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	60
Out	22	3	4	3	1	4	1	2	3	2	3	2	3	2	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	0	60

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B01B00 / B-1B	**Modification Number / Title:** 4284 / CITS UPGRADE
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	88.381	14.637	15.993	11.271	0.000	11.271	2.752	0.793	0.109	0.111	-	134.047
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	88.381	14.637	15.993	11.271	0.000	11.271	2.752	0.793	0.109	0.111	-	134.047
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**88.381**	**14.637**	**15.993**	**11.271**	**0.000**	**11.271**	**2.752**	**0.793**	**0.109**	**0.111**	**-**	**134.047**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Central Integrated Test System (CITS) is the B-1B on-board diagnostic system that monitors aircraft avionics and mechanical systems on the ground and during flight, reporting faults to aircrew and maintainers. The current CITS suffers from Diminishing Manufacturing Source (DMS) issues with the potential to ground aircraft. Current CITS processor is also at maximum memory/throughput, inhibiting fault detection and isolation for current systems and future B-1B upgrades. Modification funds will procure and install Group A and Group B kits for the CITS upgrade to the B-1B. This modification provides a new CITS Dedicated Processor (CDP), upgraded Multi-Functional Display (MFD), and re-hosted CITS software, resulting in enhanced diagnostic capabilities, improved turnaround time, and reduced maintenance costs. CITS installations are scheduled concurrently with the Fully Integrated Data Link (FIDL) and the Vertical Situation Display Upgrade (VSDU) to reduce installation costs, aircraft downtime, and to keep fielded aircraft configurations to a minimum for aircrew training, maintenance, and operational deployment efficiencies. Modification funding is being used to alleviate Diminishing Manufacturing Sources and Material Shortages (DMSMS). DMSMS activities can include, but are not limited to, life of type buy or minor redesign. Procurement modification funding will be used to establish depot repair capability and for Interim Contractor Support (ICS). Activities comprised in the equipment non-recurring line include, but are not limited to, production test equipment and tooling. Group B non-recurring also includes Systems Engineering Program Management (SEPM).

Requirement listed in ORD: B-1B Conventional Mission Upgrade Program (26 Jan 05) (ORD CAF-357-92 (SAC 007-92) I/II-A, Rev 2, Annex A).

Milestone/Development Status

The Engineering & Manufacturing Development phase completed Oct 10. Two aircraft were modified using Research Development Test and Evaluation (RDT&E) funding in PE 0604226F / 0101126F.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	14.637	15.993	11.271	-	11.271	2.752	0.793	0.109	0.111
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**14.637**	**15.993**	**11.271**	**0.000**	**11.271**	**2.752**	**0.793**	**0.109**	**0.111**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B01B00 / B-1B	**Modification Number / Title:** 4284 / CITS UPGRADE
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: B-1B	**Modification Type:** Service Life Extension	**Related RDT&E PEs:** 0101126F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0101126F	- / 49.635	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 49.635
Procurement												
Modification Item 1 of 1: IBS (2)												
A Kits												
Recurring												
IBS:INSTALL KITS Group A (Active)	60 / 5.387	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	60 / 5.387
Subtotal: Recurring	*- / 5.387*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 5.387*
B Kits												
Recurring												
IBS:EQUIPMENT Group B (Active)	60 / 24.346	- / 0.641	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	60 / 24.987
IBS:EQUIPMENT Group B (Guard)	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000
IBS:EQUIPMENT Group B (Reserve)	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000
Subtotal: Recurring	*- / 24.346*	*- / 0.641*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 24.987*
Subtotal: IBS (2)	*- / 29.733*	*- / 0.641*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 30.374*
Subtotal: Procurement, All Modification Items	*- / 29.733*	*- / 0.641*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 30.374*
Support *(All Modification Items)*												
GROUP A: TOTAL NONRECURRING	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000
GROUP B: TOTAL NONRECURRING	- / 17.675	- / 1.269	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 18.944
Change Orders	- / 3.083	- / 0.772	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.855
Data	- / 1.315	- / 0.011	- / 0.011	- / 0.350	- / -	- / 0.350	- / 0.000	- / -	- / -	- / -	- / -	- / 1.687
SIM/TRAINER	4 / 2.677	4 / 1.350	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 4.027
SUPPORT-EQUIP	- / 9.577	- / 1.746	- / -	- / 2.185	- / -	- / 2.185	- / 0.754	- / -	- / -	- / -	- / -	- / 14.262
ICS-Material	- / 2.566	- / 1.139	- / 1.707	- / 2.370	- / -	- / 2.370	- / 1.998	- / 0.793	- / 0.109	- / 0.111	- / -	- / 10.793
OTHER GOVT	- / 3.067	- / 0.250	- / 7.312	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 10.629
PMA - Contractor Services	- / 0.983	- / 2.289	- / 1.406	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.678
PMA - Other Gov't Costs	- / 0.746	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.746
Subtotal: Support	*4 / 41.689*	*4 / 8.826*	*- / 10.436*	*- / 4.905*	*- / -*	*- / 4.905*	*- / 2.752*	*- / 0.793*	*- / 0.109*	*- / 0.111*	*- / -*	*8 / 69.621*
Installation												
Modification Item 1 of 1: IBS (2)	30 / 16.959	10 / 5.170	10 / 5.557	10 / 6.366	- / -	10 / 6.366	- / -	- / -	- / -	- / -	- / -	60 / 34.052
Subtotal: Installation	*30 / 16.959*	*10 / 5.170*	*10 / 5.557*	*10 / 6.366*	*- / -*	*10 / 6.366*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*60 / 34.052*
Total												

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B01B00 / B-1B	**Modification Number / Title:** 4284 / CITS UPGRADE
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: B-1B	**Modification Type:** Service Life Extension	**Related RDT&E PEs:** 0101126F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Total Cost (Procurement + Support + Installation)	**88.381**	**14.637**	**15.993**	**11.271**	**0.000**	**11.271**	**2.752**	**0.793**	**0.109**	**0.111**	**-**	**134.047**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B01B00 / B-1B	**Modification Number / Title:** 4284 / CITS UPGRADE
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 1: IBS (2)

Manufacturer Information

Manufacturer Name: Boeing	Manufacturer Location: Oklahoma City, OK
Administrative Leadtime *(in Months)*: 4	Production Leadtime *(in Months)*: 20

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	30 / 16.959	10 / 5.170	10 / 5.557	10 / 6.366	- / -	10 / 6.366	- / -	- / -	- / -	- / -	- / -	60 / 34.052
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	30 / 16.959	10 / 5.170	10 / 5.557	10 / 6.366	- / -	10 / 6.366	- / -	- / -	- / -	- / -	- / -	60 / 34.052

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	30	2	3	2	3	2	3	2	3	2	3	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	60
Out	25	3	3	2	2	3	2	3	2	3	2	3	2	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	60

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B01B00 / B-1B	**Modification Number / Title:** 8971 / VERTICAL SITUATION DISPLAYS
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	194.950	42.791	47.260	16.436	0.000	16.436	14.923	8.622	0.000	0.000	-	324.982
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	194.950	42.791	47.260	16.436	0.000	16.436	14.923	8.622	0.000	0.000	-	324.982
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**194.950**	**42.791**	**47.260**	**16.436**	**0.000**	**16.436**	**14.923**	**8.622**	**0.000**	**0.000**	**-**	**324.982**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Vertical Situation Display Upgrade (VSDU) is a safety-critical program to replace B-1B pilot and co-pilot primary flight displays and associated flight instruments. The current VSDs are monochrome cathode ray tube displays, which along with the "steam gauge" primary flight instruments, are experiencing Diminishing Manufacturing Sources (DMS) issues with the potential to ground aircraft. Spares are no longer procurable due to obsolescence. Modification funds will procure and install Group A and Group B kits for the VSDU upgrade to the B-1B. This modification installs two 8"x6" color displays at pilot and co-pilot stations to provide Primary Flight Information (PFI) and backup PFI to meet flight safety standards. These displays also provide front crew situational awareness from the Fully Integrated Data Link (FIDL) enhancing the ability to avoid threats and strike emerging targets. VSDU installations are scheduled concurrently with Central Integrated Test System (CITS) and FIDL to reduce installation costs, aircraft downtime, and to keep fielded aircraft configurations to a minimum for aircrew training, maintenance, and operational deployment efficiencies. Modification funding will be used for DMS and Material Shortages (DMSMS). DMSMS activities can include, but are not limited to, life of type buy or minor redesign. Procurement modification funding will be used to establish depot repair capability and for Interim Contractor Support (ICS). Activities comprised in the equipment non-recurring line include, but are not limited to, production test equipment and tooling. Group B non-recurring also includes Systems Engineering Program Management (SEPM).

Requirement listed in ORD: B-1B Conventional Mission Upgrade Program (26 Jan 05) (ORD CAF-357-92 (SAC 007-92) I/II-A, Rev 2, Annex A).

Milestone/Development Status

The Engineering & Manufacturing Development (EMD) phase completed in March 2014. Two aircraft were modified as a part of the development program and funded with RDT&E funding in PE 0604226F / 0101126F.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	42.791	47.260	16.436	-	16.436	14.923	8.622	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**42.791**	**47.260**	**16.436**	**0.000**	**16.436**	**14.923**	**8.622**	**0.000**	**0.000**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B01B00 / B-1B	**Modification Number / Title:** 8971 / VERTICAL SITUATION DISPLAYS
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: B-1B	**Modification Type:** Service Life Extension	**Related RDT&E PEs:** 0101126F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0101126F	- / 166.669	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 166.669
Procurement												
Modification Item 1 of 1: IBS (3)												
A Kits												
Recurring												
IBS:INSTALL KITS Group A (Active)	60 / 14.878	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	60 / 14.878
Subtotal: Recurring	*- / 14.878*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 14.878*
B Kits												
Recurring												
IBS:EQUIPMENT Group B (Active)	60 / 69.183	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	60 / 69.183
Subtotal: Recurring	*- / 69.183*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 69.183*
Subtotal: IBS (3)	*- / 84.061*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 84.061*
Subtotal: Procurement, All Modification Items	*- / 84.061*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 84.061*
Support *(All Modification Items)*												
GROUP B: TOTAL NONRECURRING	- / 14.153	- / -	- / 0.750	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 14.903
Change Orders	- / 8.484	- / 10.474	- / 2.541	- / -	- / -	- / -	- / 6.504	- / -	- / -	- / -	- / -	- / 28.003
Data	- / 1.518	- / 0.011	- / 0.011	- / 0.350	- / -	- / 0.350	- / -	- / -	- / -	- / -	- / -	- / 1.890
SIM/TRAINER	1 / 3.686	1 / 1.276	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 4.962
SUPPORT-EQUIP	- / 11.843	- / 6.504	- / 2.438	- / -	- / -	- / -	- / 1.300	- / 2.300	- / -	- / -	- / -	- / 24.385
ICS-Material	- / 7.224	- / 4.716	- / 5.153	- / 0.112	- / -	- / 0.112	- / 4.350	- / 3.900	- / -	- / -	- / -	- / 25.455
OTHER GOVT	- / 20.572	- / 3.188	- / 18.362	- / -	- / -	- / -	- / 2.769	- / 2.422	- / -	- / -	- / -	- / 47.313
PMA - Contractor Services	- / 2.820	- / 3.242	- / 3.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 9.562
PMA - Other Gov't Costs	- / 0.411	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.411
Subtotal: Support	*1 / 70.711*	*1 / 29.411*	*- / 32.755*	*- / 0.462*	*- / -*	*- / 0.462*	*- / 14.923*	*- / 8.622*	*- / -*	*- / -*	*- / -*	*2 / 156.884*
Installation												
Modification Item 1 of 1: IBS (3)	30 / 40.178	10 / 13.380	10 / 14.505	10 / 15.974	- / -	10 / 15.974	- / -	- / -	- / -	- / -	- / -	60 / 84.037
Subtotal: Installation	*30 / 40.178*	*10 / 13.380*	*10 / 14.505*	*10 / 15.974*	*- / -*	*10 / 15.974*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*60 / 84.037*
Total												
Total Cost (Procurement + Support + Installation)	**194.950**	**42.791**	**47.260**	**16.436**	**0.000**	**16.436**	**14.923**	**8.622**	**0.000**	**0.000**	**-**	**324.982**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B01B00 / B-1B	**Modification Number / Title:** 8971 / VERTICAL SITUATION DISPLAYS

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 1: IBS (3)

Manufacturer Information

Manufacturer Name: Boeing	Manufacturer Location: Oklahoma City, OK
Administrative Leadtime *(in Months)*: 4	Production Leadtime *(in Months)*: 20

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	30 / 40.178	10 / 13.380	10 / 14.505	10 / 15.974	- / -	10 / 15.974	- / -	- / -	- / -	- / -	- / -	60 / 84.037
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	30 / 40.178	10 / 13.380	10 / 14.505	10 / 15.974	- / -	10 / 15.974	- / -	- / -	- / -	- / -	- / -	60 / 84.037

Installation Schedule

		FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023					
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	30	2	3	2	3	2	3	2	3	2	3	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	60
Out	22	3	4	3	1	4	1	2	3	2	3	2	3	2	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	0	60

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 1: Strategic Aircraft	**P-1 Line Item Number / Title:** B05200 / B-52

ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0101113F	**Other Related Program Elements:** 0101113F

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	439.285	109.020	109.295	105.519	0.000	105.519	123.983	142.265	195.191	753.040	0.000	1,977.598
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	439.285	109.020	109.295	105.519	0.000	105.519	123.983	142.265	195.191	753.040	0.000	1,977.598
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**439.285**	**109.020**	**109.295**	**105.519**	**0.000**	**105.519**	**123.983**	**142.265**	**195.191**	**753.040**	**0.000**	**1,977.598**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This line item funds modifications to the B-52H aircraft. The B-52H strategic bomber maintains nuclear and conventional taskings. The Air Force maintains 76 B-52Hs in its inventory. The B-52H averages 17,867 airframe hours as of July, 2016 (Source: LIMS-EV). The specific modifications budgeted and programmed are below.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Funding for the exhibit contained in PE 0101113F. Funding under this PE may be used to alleviate Diminishing Manufacturing Sources (DMS) issues. APAF funds for B-52 are also executed under one other PE, Maintenance Trainer Modifications (PE 0809731F).

Funds are included to accommodate the FAA mandate for ADS-B as outlined throughout previous AF and DoD budget exhibits.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	95.214	90.197	101.074	-	101.074	119.479	127.515	176.754	742.889
AFR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	13.806	19.098	4.445	-	4.445	4.504	14.750	18.437	10.152
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**109.020**	**109.295**	**105.519**	**-**	**105.519**	**123.983**	**142.265**	**195.191**	**753.041**

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 1: Strategic Aircraft

P-1 Line Item Number / Title:
B05200 / B-52

ID Code (A=Service Ready, B=Not Service Ready): B | **Program Elements for Code B Items:** 0101113F | **Other Related Program Elements:** 0101113F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	3265 / B-52 Anti-Skid Replacement (Reliability & Maintainability)				- / 18.616	- / 1.085	- / 0.909	- / 0.916	- / -	- / 0.916
P-40a***	6885 / AETC Trainers (B-52) (Other)				- / 4.594	- / 2.406	- / 2.460	- / 2.480	- / -	- / 2.480
P-40a***	6889 / Bomber Tactical Data link (Capability Improvement)				- / -	- / -	- / -	- / 2.976	- / -	- / 2.976
P-40a***	6890 / B-52 Radar Modernization (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / -
P-40a***	6891 / B-52 WST AR Upgrade Trainer (Capability Improvement)				- / -	- / -	- / 1.809	- / -	- / -	- / -
P-40a***	6892 / B-52 Low Cost Improvements (Capability Improvement)				- / -	- / 2.331	- / 2.378	- / 2.362	- / -	- / 2.362
P-40a***	6893 / GPS-IU Replacement (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / -
P-40a***	6895 / Advanced Targeting Pod MFCD (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / -
P-40a***	6896 / B-52 VLF/LF Modernization (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / -
P-40a***	6897 / B-52 Re-engine (Reliability & Maintainability)				- / -	- / -	- / -	- / -	- / -	- / -
P-40a***	9710 / Airspace Compliance (Capability Improvement)				- / -	- / -	- / -	- / 1.954	- / -	- / 1.954
P-40a***	99999X / B-52 Low Cost Mods (Other)				- / 1.480	- / 0.439	- / 0.450	- / 0.452	- / -	- / 0.452
P-3a	3310 / B-52 Combat Network Communications Technology (Capability Improvement)		B		- / 392.277	- / 99.068	- / 74.355	- / 55.444	- / 0.000	- / 55.444
P-3a	6884 / B-52 Internal Weapons Bay Upgrade (Capability Improvement)		B		- / 22.318	- / 3.691	- / 26.934	- / 24.176	- / 0.000	- / 24.176
P-3a	6894 / B-52 Crypto Modernization (Capability Improvement)		B		- / -	- / 0.000	- / 0.000	- / 14.759	- / 0.000	- / 14.759
P-40	**Total Gross/Weapon System Cost**				**- / 439.285**	**- / 109.020**	**- / 109.295**	**- / 105.519**	**- / 0.000**	**- / 105.519**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	3265 / B-52 Anti-Skid Replacement (Reliability & Maintainability)				- / 0.932	- / 0.949	- / -	- / -	- / -	- / 23.407
P-40a***	6885 / AETC Trainers (B-52) (Other)				- / 2.524	- / 2.568	- / 2.620	- / 2.668	- / -	- / 22.320
P-40a***	6889 / Bomber Tactical Data link (Capability Improvement)				- / 15.925	- / 30.214	- / 24.917	- / 25.372	- / -	- / 99.404
P-40a***	6890 / B-52 Radar Modernization (Capability Improvement)				- / 5.809	- / 12.995	- / 13.256	- / 90.858	- / -	- / 122.918
P-40a***	6891 / B-52 WST AR Upgrade Trainer (Capability Improvement)				- / 10.998	- / -	- / -	- / -	- / -	- / 12.807
P-40a***	6892 / B-52 Low Cost Improvements (Capability Improvement)				- / 2.412	- / 2.461	- / 2.511	- / 2.557	- / -	- / 17.012
P-40a***	6893 / GPS-IU Replacement (Capability Improvement)				- / 25.440	- / 23.904	- / 11.079	- / 11.280	- / -	- / 71.703
P-40a***	6895 / Advanced Targeting Pod MFCD (Capability Improvement)				- / -	- / -	- / 22.907	- / 16.216	- / -	- / 39.123
P-40a***	6896 / B-52 VLF/LF Modernization (Capability Improvement)				- / -	- / 8.410	- / 33.557	- / 57.852	- / -	- / 99.819
P-40a***	6897 / B-52 Re-engine (Reliability & Maintainability)				- / -	- / -	- / 43.632	- / 505.821	- / -	- / 549.453
P-40a***	9710 / Airspace Compliance (Capability Improvement)				- / 19.694	- / 16.374	- / 3.570	- / 3.636	- / -	- / 45.228
P-40a***	99999X / B-52 Low Cost Mods (Other)				- / 0.460	- / 0.470	- / 0.480	- / 0.489	- / -	- / 4.720
P-3a	3310 / B-52 Combat Network Communications Technology (Capability Improvement)		B		- / 22.067	- / 22.261	- / 14.569	- / 13.796	- / -	- / 693.837

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 1: Strategic Aircraft	**P-1 Line Item Number / Title:** B05200 / B-52

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0101113F	Other Related Program Elements: 0101113F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-3a	6884 / B-52 Internal Weapons Bay Upgrade (Capability Improvement)		B		- / 0.000	- / 0.000	- / 0.000	- / 0.001	- / -	- / 77.120
P-3a	6894 / B-52 Crypto Modernization (Capability Improvement)		B		- / 17.722	- / 21.659	- / 22.093	- / 22.495	- / -	- / 98.728
P-40	**Total Gross/Weapon System Cost**				**- / 123.983**	**- / 142.265**	**- / 195.191**	**- / 753.040**	**- / 0.000**	**- / 1,977.598**

*** Although this is an Exhibit P-40a item, the actual exhibit is not included since all of the required information for this item is already being shown here.

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B05200 / B-52	**Modification Number / Title:** 3310 / B-52 Combat Network Communications Technology
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	392.277	99.068	74.355	55.444	0.000	55.444	22.067	22.261	14.569	13.796	-	693.837
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	392.277	99.068	74.355	55.444	0.000	55.444	22.067	22.261	14.569	13.796	-	693.837
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**392.277**	**99.068**	**74.355**	**55.444**	**0.000**	**55.444**	**22.067**	**22.261**	**14.569**	**13.796**	**-**	**693.837**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	4.561	4.602	0.000	-	0.000	0.000	0.000	0.000	-	-	9.163
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The B-52H Combat Network Communication Technology (CONECT) acquisition project supports nuclear and conventional operations by upgrading the B-52H fleet with data and voice communications capabilities along with improved threat and situational awareness to support participation in network centric operations. This CONECT modification includes procurement of 74 aircraft kits + 2 EMD kits that will be installed in conjunction with Programmed Depot Maintenance (PDM). Ground station mission planning hardware, support equipment, initial spares, and Interim Contractor Support will be procured. Additional initial support/readiness efforts will develop and upgrade B-52H training devices with CONECT functionality. The CONECT training device upgrades provide full CONECT functionality to support aircrew training. The Aircrew Training Devices (ATDs) include three B-52H Weapon System Trainers (WST) and two Offensive Station Mission Trainers (OSMT), and the upgrades will also be installed in the Systems Integration Lab (SIL). The Other Government Cost line includes, but is not limited to, Diminishing Manufacturing Sources (DMS) costs to maintain the production configuration through the identification, review and monitoring of items with high obsolescence risk potential, classification of identified items according to criticality, identification of alternatives and implementation of resolutions. Resolutions may include non-recurring engineering (NRE) and/or replacement costs for DMS components, bridge buys of DMS components until NRE can be completed or Life of Type buys, whichever is most appropriate. Government Furnished Property (GFP) are the items that are part of the kit, but are procured by the government, directly through government supply or from other government agencies and provided directly to PDM. Included in the Support Equipment line is the planning for establishment of an organic Depot capability, stand-up of the depot, procurement of depot equipment and procurement of the CONECT ground station. Funds may be used to address emerging and short-notice Diminishing Manufacturing and Material Shortage (DMSMS) issues. DMS efforts to include removal of end-of-life software/hardware within simulators systems and move to a modular, common open system architecture that is sustainable and cyber-resilient. Implement requirements and standards defined under the Simulator Common Architecture Requirements and Standards (SCARS) initiative.

This program has associated Research Development Test and Evaluation (RDT&E) funding in PE 0101113F. Two EMD kits were purchased with RDT&E funding.

Funds may be used to resolve emerging safety of flight and diminishing manufacturing sources issues, accommodate technology insertion and fulfill FAA or other mandates necessary to ensure continued aircrew safety and mission effectiveness.

Milestone/Development Status

Development began in FY05. CONECT Initial Operational Test & Evaluation (IOT&E) flight test completed November 2011. The Low Rate Initial Production (LRIP) Lot 1 contract was awarded in May 2013. The LRIP Lot 2 contract was awarded August 2014. Full Rate Production Lot 1a (10 units) was awarded February 2015. Full Rate Production Lot 1b (additional 7 units) was awarded 8 August 2015, Lot 2 (additional 16 units) was awarded 29 January 2016, Lot 3 (additional 13 units) 16 December 2016. Full Rate Production Lot 4 was awarded 16 Nov 17.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B05200 / B-52	**Modification Number / Title:** 3310 / B-52 Combat Network Communications Technology
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	85.262	60.649	52.231	-	52.231	18.854	22.261	14.569	13.796
AFR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	13.806	13.706	3.213	-	3.213	3.213	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**99.068**	**74.355**	**55.444**	**0.000**	**55.444**	**22.067**	**22.261**	**14.569**	**13.796**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B05200 / B-52	**Modification Number / Title:** 3310 / B-52 Combat Network Communications Technology
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: B-52H	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0101113F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0101113F	2 / 10.000	- / -	- / 7.043	- / 11.222	- / -	- / 11.222	- / -	- / -	- / 0.002	- / 0.002	- / -	2 / 28.269
Procurement												
Modification Item 1 of 1: CONECT Kit												
A Kits												
Recurring												
CONECT Kit:INSTALL KITS Group A (Active)	41 / 33.536	9 / 7.174	6 / 5.362	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	56 / 46.072
CONECT Kit:INSTALL KITS Group A (Reserve)	10 / 9.271	4 / 3.189	4 / 3.574	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	18 / 16.034
Subtotal: Recurring	*- / 42.807*	*- / 10.363*	*- / 8.936*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 62.106*
B Kits												
Recurring												
CONECT Kit:EQUIPMENT Group B (Active)	41 / 110.685	9 / 14.248	6 / 8.771	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	56 / 133.704
CONECT Kit:EQUIPMENT Group B (Reserve)	10 / 24.877	4 / 6.333	4 / 5.848	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	18 / 37.058
Subtotal: Recurring	*- / 135.562*	*- / 20.581*	*- / 14.619*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 170.762*
Subtotal: CONECT Kit	*- / 178.369*	*- / 30.944*	*- / 23.555*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 232.868*
Subtotal: Procurement, All Modification Items	*- / 178.369*	*- / 30.944*	*- / 23.555*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 232.868*
Support *(All Modification Items)*												
GROUP A: TOTAL NONRECURRING	- / 5.623	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.623
GROUP B: TOTAL NONRECURRING	- / 28.649	- / 5.260	- / 6.104	- / 3.300	- / -	- / 3.300	- / 0.020	- / -	- / -	- / -	- / -	- / 43.333
Change Orders	- / 13.953	- / 5.800	- / -	- / 2.200	- / -	- / 2.200	- / 1.600	- / 0.010	- / -	- / -	- / -	- / 23.563
Data	- / 0.465	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.465
SIM/TRAINER	- / -	0 / 4.504	0 / 10.824	0 / 2.546	- / -	0 / 2.546	- / -	- / -	- / -	- / -	- / -	0 / 17.874
SUPPORT-EQUIP	- / 34.112	- / 15.595	- / 3.472	- / 13.307	- / -	- / 13.307	- / 8.678	- / -	- / 14.569	- / 13.470	- / -	- / 103.203
OTHER GOVT	- / 54.528	- / 6.958	- / 7.539	- / 0.000	- / -	- / 0.000	- / 1.925	- / -	- / -	- / 0.326	- / -	- / 71.276
GFP	- / 11.440	- / 1.800	- / 1.400	- / 17.170	- / -	- / 17.170	- / -	- / 21.751	- / -	- / -	- / -	- / 53.561
PMA - Other Gov't Costs	- / 29.384	- / 10.000	- / 4.325	- / 7.282	- / -	- / 7.282	- / 3.418	- / 0.500	- / -	- / -	- / -	- / 54.909
Subtotal: Support	*- / 178.154*	*0 / 49.917*	*0 / 33.664*	*0 / 45.805*	*- / -*	*0 / 45.805*	*- / 15.641*	*- / 22.261*	*- / 14.569*	*- / 13.796*	*- / -*	*0 / 373.807*
Installation												
Modification Item 1 of 1: CONECT Kit	26 / 35.754	17 / 18.207	16 / 17.136	9 / 9.639	- / -	9 / 9.639	6 / 6.426	- / -	- / -	- / -	- / -	74 / 87.162
Subtotal: Installation	*26 / 35.754*	*17 / 18.207*	*16 / 17.136*	*9 / 9.639*	*- / -*	*9 / 9.639*	*6 / 6.426*	*- / -*	*- / -*	*- / -*	*- / -*	*74 / 87.162*
Total												

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B05200 / B-52	**Modification Number / Title:** 3310 / B-52 Combat Network Communications Technology
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: B-52H	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0101113F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Total Cost (Procurement + Support + Installation)	**392.277**	**99.068**	**74.355**	**55.444**	**0.000**	**55.444**	**22.067**	**22.261**	**14.569**	**13.796**	**-**	**693.837**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B05200 / B-52	**Modification Number / Title:** 3310 / B-52 Combat Network Communications Technology

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 1: CONECT Kit

Manufacturer Information

Manufacturer Name: Boeing

Manufacturer Location: Oklahoma City, OK

Administrative Leadtime *(in Months)*: 7

Production Leadtime *(in Months)*: 9

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	May 2017	May 2018					
Delivery Dates	Feb 2018	Feb 2019					

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	26 / 35.754	17 / 18.207	8 / 8.568	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	51 / 62.529
FY 2017	- / -	- / -	8 / 8.568	5 / 5.355	- / -	5 / 5.355	- / -	- / -	- / -	- / -	- / -	13 / 13.923
FY 2018	- / -	- / -	- / -	4 / 4.284	- / -	4 / 4.284	6 / 6.426	- / -	- / -	- / -	- / -	10 / 10.710
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	26 / 35.754	17 / 18.207	16 / 17.136	9 / 9.639	- / -	9 / 9.639	6 / 6.426	- / -	- / -	- / -	- / -	74 / 87.162

Installation Schedule

		FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023					
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	26	4	4	4	5	4	3	4	5	3	3	1	2	3	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	0	74
Out	15	4	4	5	4	4	4	4	4	4	4	5	3	3	2	3	2	-	-	-	-	-	-	-	-	-	-	-	-	0	74

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B05200 / B-52	**Modification Number / Title:** 6884 / B-52 Internal Weapons Bay Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	22.318	3.691	26.934	24.176	0.000	24.176	0.000	0.000	0.000	0.001	-	77.120
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	22.318	3.691	26.934	24.176	0.000	24.176	0.000	0.000	0.000	0.001	-	77.120
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**22.318**	**3.691**	**26.934**	**24.176**	**0.000**	**24.176**	**0.000**	**0.000**	**0.000**	**0.001**	**-**	**77.120**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	0.944	0.813	0.171	-	0.171	0.020	-	-	-	-	1.948
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This modification integrates MIL-STD-1760 into the Internal Weapons Bay on 78 B-52H aircraft, which includes two Ground Instructional Training Aircraft (GITA). This project utilizes 44 Common Strategic Rotary Launchers (CSRLs) converted into Conventional Rotary Launchers (CRLs), where three of the CRLs will be modified under Engineering and Manufacturing Development (EMD) for test purposes thus resulting in a production quantity of 41 CRLs. This project includes associated changes to training and support equipment, alternate mission equipment (rotary launchers) technical data, and procurement of initial spares. An incremental acquisition strategy is being employed for this modification due to technical maturity. Increment 1.0 adds internal carriage for eight weapons and consists of two sub increments 1.1 and 1.2. This requirement was validated by the Air Force Requirements for Oversight Council (AFROC), with a signed Capability Development Document (CDD) in June 2013 and CDD revalidated as a Capability Production Document (CPD) in February 2015. This program has associated Research Development Test and Evaluation (RDT&E) funding in PE 0101113F.

Increment 1.1 develops capability for internal carriage of eight Joint Direct Attack Munitions (JDAM) and variants, to include Laser JDAM (LJDAM), on a rotary launcher. Additionally, this increment develops the capability for external carriage for 16 LJDAM. The CRL Hardware modification consists of Group A (equipment racks and electrical wiring) and Group B (one Survivability/Vulnerability (SV) junction box and one Integrated
Weapons Interface Unit (IWIU) per CRL). The IWIU Line Replaceable Unit (LRU) was previously developed under the Advanced Weapons Integration (AWI) project. Preliminary integration activities work was previously accomplished during a 2005 demonstration and developed using 2006 and 2007 Congressional Add funding. No CSRL replacements will be required as a result of this program. Software modifications consist of installation of aircraft operational flight program (OFP) software, JDAM Stores Management Overlays (SMO) and ground based Joint Mission Planning System (JMPS). For support equipment rotary launcher cable adaptors sets for all 38 (34 production + 4 EMD) Multi-use System Tester Armament Next Generation (MUSTANG) testers to interface with the CRL.

Increment 1.2 develops the capability for internal carriage of eight Joint Air-to-Surface Standoff Missiles (JASSM) and its variants, to include JASSM-Extended Range (JASSM-ER), or eight Miniature Air Launched Decoys (MALD) and its variants, to include MALD Jammer (MALD-J). This increment also develops the capability for external carriage for 12 JASSM-ER. Aircraft Hardware Modification consists of installation of Group A wiring and circuit breakers to supply additional power to the CRL for all B-52H (78) aircraft and 44 Conventional Rotary Launchers. Software updates allow for internal and external carriage of weapons. CRL Hardware modifications consists of production group A associated hardware and two Group B LRUs (power supply and power distribution box). 12 Rotary Launcher Loader sets, 44 Rotary Launcher Maintenance Stands (41 production and 3 EMD) and modification of all 38 (34 production and 4 EMD) MUSTANG testers.

FY18 will procure Long Lead and Lot I including 21 Group B CRL kits, 40 Group A B-52H aircraft kits and support equipment.

FY19 will procure Lot II including 20 Group B CRL kits, procure 35 Group A B-52H aircraft kits, and remaining support equipment. The installations will be in FY19 and FY20 with FY18 and 19 funding. Software will be installed on the 75 modified aircraft.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B05200 / B-52	**Modification Number / Title:** 6884 / B-52 Internal Weapons Bay Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

For the overall production program, total funded (157) includes the 41 modified CRLs (CRLs modified in both 1.1 and 1.2 increments) and the 75 modified B-52H aircraft (73 operational + 2 GITA). The three 1.1 and 1.2 Full CRLs, two Interim CRLs, and three 1.2 Full aircraft are funded during EMD and are not included in this total.

Funds may be used to address emerging and short-notice Diminishing Manufacturing and Material Shortage (DMSMS) issues. Funds may be used to resolve emerging safety of flight and diminishing manufacturing sources issues, accommodate technology insertion and fulfill FAA or other mandates necessary to ensure continued aircrew safety and mission effectiveness.

Milestone/Development Status

Development began in FY11

Increment 1.1
Preliminary Design Review (Feb 2013)
EMD contract (Sept 2013)
Critical Design Review (Oct 2013)
Full Rate Production contract award (Jun 2016)
CFT contract awarded (Dec 2016)

Increment 1.2
Technical Maturation and Risk Reduction contract awarded (Apr 2015)
Preliminary Design Review (Oct 2015)
Engineering and Manufacturing Development option was exercised January 2016 and will run thru Q4 FY18.
Critical Design Review (March 2016)
Milestone B (Apr 2016)

Long lead parts RFP and kit RFP release permission was granted by MDA in October 2016 to award long lead parts in FY18. Long lead RFP was released in August 2017. Milestone C is estimated for July 2018.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	3.691	21.930	22.944	-	22.944	0.000	-	-	0.001
AFR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	5.004	1.232	-	1.232	0.000	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**3.691**	**26.934**	**24.176**	**0.000**	**24.176**	**0.000**	**0.000**	**0.000**	**0.001**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B05200 / B-52	**Modification Number / Title:** 6884 / B-52 Internal Weapons Bay Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: B-52H	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0101113F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0101113F	6 / 179.822	- / 34.634	- / 15.164	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 229.620
Procurement												
Modification Item 1 of 3: 1760 Inc. 1.1 CRL Kit												
A Kits												
Recurring												
1760 Inc. 1.1 CRL Kit:INSTALL KITS Group A (Active)	41 / 17.126	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	41 / 17.126
Subtotal: Recurring	*- / 17.126*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 17.126*
Subtotal: 1760 Inc. 1.1 CRL Kit	*- / 17.126*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 17.126*
Modification Item 2 of 3: 1760 Inc. 1.2 Acft Kit												
A Kits												
Recurring												
1760 Inc. 1.2 Acft Kit:INSTALL KITS Group A (Active)	- / -	- / -	22 / 6.116	35 / 9.084	- / -	35 / 9.084	- / -	- / -	- / -	- / -	- / -	57 / 15.200
1760 Inc. 1.2 Acft Kit:INSTALL KITS Group A (Reserve)	- / -	- / -	18 / 5.004	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	18 / 5.004
Subtotal: Recurring	*- / -*	*- / -*	*- / 11.120*	*- / 9.084*	*- / -*	*- / 9.084*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 20.204*
Subtotal: 1760 Inc. 1.2 Acft Kit	*- / -*	*- / -*	*- / 11.120*	*- / 9.084*	*- / -*	*- / 9.084*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 20.204*
Modification Item 3 of 3: 1760 Inc. 1.2 CRL Kit												
A Kits												
Recurring												
1760 Inc. 1.2 CRL Kit:INSTALL KITS Group A (Active)	- / -	- / -	21 / 7.050	20 / 6.351	- / -	20 / 6.351	- / -	- / -	- / -	- / -	- / -	41 / 13.401
Subtotal: Recurring	*- / -*	*- / -*	*- / 7.050*	*- / 6.351*	*- / -*	*- / 6.351*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 13.401*
Subtotal: 1760 Inc. 1.2 CRL Kit	*- / -*	*- / -*	*- / 7.050*	*- / 6.351*	*- / -*	*- / 6.351*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 13.401*
Subtotal: Procurement, All Modification Items	*- / 17.126*	*- / -*	*- / 18.170*	*- / 15.435*	*- / -*	*- / 15.435*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 50.731*
Support *(All Modification Items)*												
Change Orders	- / 1.660	- / 1.820	- / 1.567	- / 1.126	- / -	- / 1.126	- / -	- / -	- / -	- / -	- / -	- / 6.173
Data	- / 0.263	- / 0.250	- / 0.067	- / 0.634	- / -	- / 0.634	- / -	- / -	- / -	- / -	- / -	- / 1.214
OTHER GOVT	- / -	- / 0.035	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.001	- / -	- / 0.036
SUPPORT-EQUIP	- / 0.335	- / -	- / 6.493	- / 2.716	- / -	- / 2.716	- / -	- / -	- / -	- / -	- / -	- / 9.544
PMA - Other Gov't Costs	- / 1.081	- / 1.015	- / 0.637	- / 0.637	- / -	- / 0.637	- / -	- / -	- / -	- / -	- / -	- / 3.370
Subtotal: Support	*- / 3.339*	*- / 3.120*	*- / 8.764*	*- / 5.113*	*- / -*	*- / 5.113*	*- / -*	*- / -*	*- / -*	*- / 0.001*	*- / -*	*- / 20.337*

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B05200 / B-52	**Modification Number / Title:** 6884 / B-52 Internal Weapons Bay Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: B-52H	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0101113F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Installation												
Modification Item 1 of 3: 1760 Inc. 1.1 CRL Kit	6 / 1.853	14 / 0.571	21 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	41 / 2.424
Modification Item 2 of 3: 1760 Inc. 1.2 Acft Kit	- / -	- / -	- / -	29 / 3.013	- / -	29 / 3.013	46 / 0.000	- / -	- / -	- / -	- / -	75 / 3.013
Modification Item 3 of 3: 1760 Inc. 1.2 CRL Kit	- / -	- / -	- / -	21 / 0.615	- / -	21 / 0.615	20 / 0.000	- / -	- / -	- / -	- / -	41 / 0.615
Subtotal: Installation	*6 / 1.853*	*14 / 0.571*	*21 / -*	*50 / 3.628*	*- / -*	*50 / 3.628*	*66 / 0.000*	*- / -*	*- / -*	*- / -*	*- / -*	*157 / 6.052*
Total												
Total Cost (Procurement + Support + Installation)	**22.318**	**3.691**	**26.934**	**24.176**	**0.000**	**24.176**	**0.000**	**0.000**	**0.000**	**0.001**	**-**	**77.120**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B05200 / B-52	**Modification Number / Title:** 6884 / B-52 Internal Weapons Bay Upgrade

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 3: 1760 Inc. 1.1 CRL Kit

Manufacturer Information

Manufacturer Name: Boeing

Manufacturer Location: Oklahoma City, OK

Administrative Leadtime *(in Months)*: 5

Production Leadtime *(in Months)*: 11

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	6 / 1.853	14 / 0.571	21 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	41 / 2.424
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	6 / 1.853	14 / 0.571	21 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	41 / 2.424

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	6	-	-	-	14	7	10	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	41
Out	6	-	-	-	14	7	10	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	41

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B05200 / B-52	**Modification Number / Title:** 6884 / B-52 Internal Weapons Bay Upgrade

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 2 of 3: 1760 Inc. 1.2 Acft Kit

Manufacturer Information

Manufacturer Name: Boeing

Manufacturer Location: Oklahoma City, OK

Administrative Leadtime *(in Months)*: 5

Production Leadtime *(in Months)*: 11

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Jun 2018	Mar 2019				
Delivery Dates		May 2019	Feb 2020				

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	21 / 2.360	- / -	21 / 2.360	11 / 0.000	- / -	- / -	- / -	- / -	32 / 2.360
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	33 / 0.000	- / -	- / -	- / -	- / -	33 / 0.000
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	21 / 2.360	- / -	21 / 2.360	44 / 0.000	- / -	- / -	- / -	- / -	65 / 2.360

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	12	12	12	12	13	4	-	-	-	-	-	-	-	-	-	-	-	-	0	65
Out	0	-	-	-	-	-	-	-	-	-	-	9	12	12	12	12	8	-	-	-	-	-	-	-	-	-	-	-	-	0	65

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B05200 / B-52	**Modification Number / Title:** 6884 / B-52 Internal Weapons Bay Upgrade

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 2 of 3: 1760 Inc. 1.2 Acft Kit

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	8 / 0.653	- / -	8 / 0.653	- / -	- / -	- / -	- / -	- / -	8 / 0.653
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.000	- / -	- / -	- / -	- / -	2 / 0.000
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	8 / 0.653	- / -	8 / 0.653	2 / 0.000	- / -	- / -	- / -	- / -	10 / 0.653

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	4	4	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	10
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	1	4	3	2	-	-	-	-	-	-	-	-	-	-	-	-	0	10

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B05200 / B-52	**Modification Number / Title:** 6884 / B-52 Internal Weapons Bay Upgrade

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 3 of 3: 1760 Inc. 1.2 CRL Kit

Manufacturer Information

Manufacturer Name: Boeing

Manufacturer Location: Oklahoma City, OK

Administrative Leadtime *(in Months)*: 5

Production Leadtime *(in Months)*: 11

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Jun 2018	Mar 2019				
Delivery Dates		May 2019	Feb 2020				

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	21 / 0.615	- / -	21 / 0.615	- / -	- / -	- / -	- / -	- / -	21 / 0.615
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	20 / 0.000	- / -	- / -	- / -	- / -	20 / 0.000
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	21 / 0.615	- / -	21 / 0.615	20 / 0.000	- / -	- / -	- / -	- / -	41 / 0.615

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	9	12	12	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	41
Out	0	-	-	-	-	-	-	-	-	-	-	9	12	12	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	41

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B05200 / B-52	**Modification Number / Title:** 6894 / B-52 Crypto Modernization
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	0.000	0.000	14.759	0.000	14.759	17.722	21.659	22.093	22.495	-	98.728
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	0.000	14.759	0.000	14.759	17.722	21.659	22.093	22.495	-	98.728
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**0.000**	**14.759**	**0.000**	**14.759**	**17.722**	**21.659**	**22.093**	**22.495**	**-**	**98.728**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	14.880	17.863	-	17.863	21.842	-	-	-	-	54.585
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Upgrades aircraft with Mobile User Objective System (MUOS) capable ARC-210 radio systems to prevent loss of BLOS voice and data communications capability. As MUOS channels are turned on, existing satellites will be removed from service. B-52 CONECT is at risk of losing its File Transfer Protocol (FTP), email, Beyond Line of Site (BLOS) voice, and BLOS data link communications without this modernization effort.

Funds may be used to address emerging and short-notice Diminishing Manufacturing and Material Shortage (DMSMS) issues.

Funds may be used to resolve emerging safety of flight and diminishing manufacturing sources issues, accommodate technology insertion and fulfill FAA or other mandates necessary to ensure continued aircrew safety and mission effectiveness.

Milestone/Development Status

MDD completed Dec 17

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	14.759	-	14.759	17.722	17.659	18.093	22.495
AFR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	-	-	-	-	4.000	4.000	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**0.000**	**0.000**	**14.759**	**0.000**	**14.759**	**17.722**	**21.659**	**22.093**	**22.495**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B05200 / B-52	**Modification Number / Title:** 6894 / B-52 Crypto Modernization
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: B-52H	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0101113F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0101113F	- / -	- / 5.941	- / 11.919	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 17.860
Procurement												
Modification Item 1 of 1: Crypto												
A Kits												
Recurring												
Crypto:INSTALL KITS Group A (Active)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 5.000	29 / 7.500	19 / 6.000	- / -	58 / 18.500
Crypto:INSTALL KITS Group A (Reserve)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 1.000	9 / 1.000	- / -	- / -	18 / 2.000
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 6.000*	*- / 8.500*	*- / 6.000*	*- / -*	*- / 20.500*
Subtotal: Crypto	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 6.000*	*- / 8.500*	*- / 6.000*	*- / -*	*- / 20.500*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 6.000*	*- / 8.500*	*- / 6.000*	*- / -*	*- / 20.500*
Support *(All Modification Items)*												
OTHER GOVT	- / -	- / -	- / -	0 / 14.759	- / -	0 / 14.759	0 / 17.722	0 / 9.659	0 / 5.093	0 / 10.495	- / -	0 / 57.728
Subtotal: Support	*- / -*	*- / -*	*- / -*	*0 / 14.759*	*- / -*	*0 / 14.759*	*0 / 17.722*	*0 / 9.659*	*0 / 5.093*	*0 / 10.495*	*- / -*	*0 / 57.728*
Installation												
Modification Item 1 of 1: Crypto	- / -	- / -	- / -	- / -	- / -	- / -	- / -	19 / 6.000	38 / 8.500	19 / 6.000	- / -	76 / 20.500
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*19 / 6.000*	*38 / 8.500*	*19 / 6.000*	*- / -*	*76 / 20.500*
Total												
Total Cost (Procurement + Support + Installation)	**-**	**0.000**	**0.000**	**14.759**	**0.000**	**14.759**	**17.722**	**21.659**	**22.093**	**22.495**	**-**	**98.728**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** B05200 / B-52	**Modification Number / Title:** 6894 / B-52 Crypto Modernization
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 1: Crypto

Manufacturer Information

Manufacturer Name: TBD	Manufacturer Location: TBD
Administrative Leadtime *(in Months)*: 1	Production Leadtime *(in Months)*: 1

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates					Jan 2021	Jan 2022	Jan 2023
Delivery Dates					Feb 2021	Feb 2022	Feb 2023

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	19 / 6.000	- / -	- / -	- / -	19 / 6.000
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	38 / 8.500	- / -	- / -	38 / 8.500
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	19 / 6.000	- / -	19 / 6.000
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	19 / 6.000	38 / 8.500	19 / 6.000	- / -	76 / 20.500

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	10	9	10	9	10	9	10	-	-	0	76
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	10	9	10	9	10	9	10	-	-	0	76

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 1: Strategic Aircraft	**P-1 Line Item Number / Title:** LAIRCM / Large Aircraft Infrared Countermeasures

ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0401134F	**Other Related Program Elements:** 0401134F

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	171.840	135.801	4.046	0.000	149.778	149.778	0.000	0.000	0.000	0.000	0.000	461.465
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	171.840	135.801	4.046	0.000	149.778	149.778	0.000	0.000	0.000	0.000	0.000	461.465
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**171.840**	**135.801**	**4.046**	**0.000**	**149.778**	**149.778**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**461.465**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Large Aircraft Infrared Countermeasures (LAIRCM) system provides a significantly improved defensive capability for the Department of Defense to counter the proliferating infrared (IR) man-portable air defense systems (MANPADS) missile threats by detecting, tracking, and countering incoming IR missiles. This system is fully autonomous following power-up and consists of Group A aircraft modification kits and Group B hardware. Group B hardware for the LAIRCM system [AN/AQQ-24(V)] consists of Missile Warning Sensors (MWS) either ultraviolet (UV) or the more capable infrared (IR); Guardian Laser Transmitter Assemblies (GLTA)/Small Laser Transmitter Assemblies (SLTA); a control indicator unit (CIU); a system processor (LSP); and repeaters, as needed by the platform.

Like all programs, LAIRCM faces the challenges associated with resolving Diminishing Manufacturing Sources (DMS) issues. DMS initiatives have resulted in replacement units for the CIU and the LSP. The control indicator unit replacement (CIUR) replaces the CIU, and the LAIRCM system processor replacement (LSPR) replaces the LSP. The CIUR became the preferred component in FY15, and the LSPR in FY16. The production program maintains a robust reliability program which results in the incorporation of reliability enhancements improving overall producibility, while gaining the inherent benefit of improved long-term sustainment. There are numerous LAIRCM configurations installed on a variety of aircraft. All configurations include a processor and a control indicator unit; however, configurations can be differentiated by the type of missile warning sensors and laser transmitter assemblies. Configurations include SLTAs and UV sensors, GLTAs and UV sensors, and GLTAs and IR sensors.

Funding may be used to address Diminishing Manufacturing Sources (DMS) issues. These efforts include, but are not limited to, Hardware Procurement (Group A and Group B), Installation, Installation Support, Initial Spares, Support Equipment, Government Furnished Equipment (GFE) and GFE Repairs, Line Replaceable Unit (LRU) Repairs, Interim Contractor Support (ICS), Depot Standup, Systems Engineering and Program Management (SEPM), Failure Reporting and Corrective Analysis Support (FRACAS), Other Government Costs (OGCs), Pre-Planned Product Improvements, Program Management and Administration (PMA) costs, simulators, data, and a DMS program to ensure continued production of all variants of LAIRCM components and for all LAIRCM customers. The LAIRCM DMS program includes all activities associated with monitoring and identifying DMS issues. It also includes all activities required to resolve DMS issues: 1) the use of existing material solutions which involves actions to secure availability of existing supply (i.e., life of need buy and extension of production or support); 2) implementing substitutes which includes engineering activities to qualify and implement the identified substitute (i.e., approved part; repair, refurbishment, or reclamation; simple substitute; and complex substitute); and 3) redesign which includes all aspects of engineering and qualification to implement new or highly modified equipment (i.e., development of a new item or source; redesign of a next higher assembly; and redesign of a complex/system replacement).*

*Reference SD-22 Manual Dated August 2012

LAIRCM kit quantities purchased are dependent on the unit cost and/or the installation cost of the kits.

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 1: Strategic Aircraft	**P-1 Line Item Number / Title:** LAIRCM / Large Aircraft Infrared Countermeasures

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0401134F	Other Related Program Elements: 0401134F

Line Item MDAP/MAIS Code: N/A

FY17 funding totals include $135.8M for Overseas Contingency Operations.

Funding for this exhibit contained in PE 0401134F.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	135.802	4.046	0.000	149.778	149.778	0.000	0.000	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**135.802**	**4.046**	**0.000**	**149.778**	**149.778**	**0.000**	**0.000**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 1: Strategic Aircraft	**P-1 Line Item Number / Title:** LAIRCM / Large Aircraft Infrared Countermeasures

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0401134F	Other Related Program Elements: 0401134F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	8629C130 / LARGE AIRCRAFT INFRARED COUNTERMEASURES C-130 (Capability Improvement)				- / -	- / 14.301	- / -	- / -	- / -	- / -
P-3a	1 / LARGE AIRCRAFT INFRARED COUNTERMEASURES C-130J (Capability Improvement)		B		- / 96.749	- / 24.718	- / 4.046	- / 0.000	- / 53.335	- / 53.335
P-3a	2 / LARGE AIRCRAFT INFRARED COUNTERMEASURES C-17 (Capability Improvement)		B		- / 75.091	- / 70.000	- / 0.000	- / 0.000	- / 69.868	- / 69.868
P-3a	3 / LARGE AIRCRAFT INFRARED COUNTERMEASURES C-5 (Capability Improvement)		B		- / -	- / 26.783	- / 0.000	- / 0.000	- / 26.575	- / 26.575
P-40	**Total Gross/Weapon System Cost**				**- / 171.840**	**- / 135.801**	**- / 4.046**	**- / 0.000**	**- / 149.778**	**- / 149.778**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	8629C130 / LARGE AIRCRAFT INFRARED COUNTERMEASURES C-130 (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / 14.301
P-3a	1 / LARGE AIRCRAFT INFRARED COUNTERMEASURES C-130J (Capability Improvement)		B		- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 178.848
P-3a	2 / LARGE AIRCRAFT INFRARED COUNTERMEASURES C-17 (Capability Improvement)		B		- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / 214.959
P-3a	3 / LARGE AIRCRAFT INFRARED COUNTERMEASURES C-5 (Capability Improvement)		B		- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / 53.358
P-40	**Total Gross/Weapon System Cost**				**- / 0.000**	**- / 0.000**	**- / 0.000**	**- / 0.000**	**- / 0.000**	**- / 461.465**

*** Although this is an Exhibit P-40a item, the actual exhibit is not included since all of the required information for this item is already being shown here.

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** LAIRCM / Large Aircraft Infrared Countermeasures	**Modification Number / Title:** 1 / LARGE AIRCRAFT INFRARED COUNTERMEASURES C-130J
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	96.749	24.718	4.046	0.000	53.335	53.335	0.000	0.000	0.000	0.000	0.000	178.848
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	96.749	24.718	4.046	0.000	53.335	53.335	0.000	0.000	0.000	0.000	0.000	178.848
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**96.749**	**24.718**	**4.046**	**0.000**	**53.335**	**53.335**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**178.848**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Large Aircraft Infrared Countermeasures (LAIRCM) system significantly improves defensive capability for the C-130J and EC-130J to counter the proliferating Infrared (IR) man-portable air defense systems (MANPADS) missile threats. The system is fully automatic following power-up. The LAIRCM kit is housed behind a turret assembly and functions using missile warning sensors (MWS), 2 Turret Assemblies, a control indicator unit (CIU), a colorless eye-safe multiband laser, and a system processor to detect, track, and counter incoming IR missiles. As Line Replaceable Units (LRUs) are updated, LAIRCM will be updated with the latest configuration of LRUs.

This program includes efforts needed to procure and install retrofit kits for 134 aircraft and deploy the system and support LAIRCM. These efforts include, but not limited to, hardware procurement, installation, installation support, initial spares, support equipment, Government Furnished Equipment (GFE) and GFE repairs, Interim Contractor Support (ICS), depot stand up, mod-line repairs, Systems Engineering and Program Management (SEPM), Failure Reporting and Corrective Analysis Support (FRACAS), Technical Orders, Other Government Costs (OGCs), and Program Management and Administration (PMA) costs. Costs for the identification, review, monitoring, and mitigation of items impacted by diminishing manufacturing sources (DMS) are included. Additionally, "change orders" include NRE/replacement costs for equipment updates to increase reliability, availability, and maintainability of LAIRCM group B components as identified during the fiscal year. To date, 32 block 20 installs are ongoing with 3 remaining installs to complete in 2018. FY19 and beyond will support upgrading all aircraft to Block 30.

FY14 included procurement of NexGen capabilities for five EC-130Js (Guard) LAIRCM Group B kits, along with five Group A kits and installs. Funding will also include the use of on hand quantities of LAIRCM components with procurement of NexGen capability (MWS and processor from UV to IR).
LAIRCM kit quantities purchased are dependent on the unit cost and/or the installation cost of the kits. On hand quantities of excess LAIRCM components procured for other platforms will be utilized to complete Group B Kits.

FY19 OCO funding of $53.330M is planned for the procurement of Group A and Group B production kits and installs.

Milestone/Development Status

Development on the C-130J platform complete.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** LAIRCM / Large Aircraft Infrared Countermeasures	**Modification Number / Title:** 1 / LARGE AIRCRAFT INFRARED COUNTERMEASURES C-130J
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
	Total Obligation Authority	24.718	4.046	-	53.335	53.335	0.000	0.000	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**24.718**	**4.046**	**0.000**	**53.335**	**53.335**	**0.000**	**0.000**	**0.000**	**0.000**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** LAIRCM / Large Aircraft Infrared Countermeasures	**Modification Number / Title:** 1 / LARGE AIRCRAFT INFRARED COUNTERMEASURES C-130J
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: C130J	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0401134F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 3: Basic Js (Block 20)												
A Kits												
Recurring												
Basic Js (Block 20):INSTALL KITS Group A (Active)	32 / 13.275	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	32 / 13.275
Basic Js (Block 20):INSTALL KITS Group A (Guard)	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000
Subtotal: Recurring	*- / 13.275*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 13.275*
B Kits												
Recurring												
Basic Js (Block 20):EQUIPMENT Group B (Active)	32 / 41.386	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	32 / 41.386
Basic Js (Block 20):EQUIPMENT Group B (Guard)	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
Subtotal: Recurring	*- / 41.386*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 41.386*
Subtotal: Basic Js (Block 20)	*- / 54.661*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 54.661*
Modification Item 2 of 3: Basic Js (Block 30)												
A Kits												
Recurring												
Basic Js (Block 30):INSTALL KITS Group A (Active)	- / -	1 / 0.688	- / -	- / -	6 / 4.371	6 / 4.371	- / -	- / -	- / -	- / -	- / -	7 / 5.059
Subtotal: Recurring	*- / -*	*- / 0.688*	*- / -*	*- / -*	*- / 4.371*	*- / 4.371*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 5.059*
B Kits												
Recurring												
Basic Js (Block 30):EQUIPMENT Group B (Active)	- / -	1 / 3.400	- / -	- / -	6 / 21.601	6 / 21.601	- / -	- / -	- / -	- / -	- / -	7 / 25.001
Subtotal: Recurring	*- / -*	*- / 3.400*	*- / -*	*- / -*	*- / 21.601*	*- / 21.601*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 25.001*
Subtotal: Basic Js (Block 30)	*- / -*	*- / 4.088*	*- / -*	*- / -*	*- / 25.972*	*- / 25.972*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 30.060*
Modification Item 3 of 3: EC-130Js												
A Kits												
Recurring												
EC-130Js:INSTALL KITS Group A (Active)	5 / 3.800	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 3.800
Subtotal: Recurring	*- / 3.800*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 3.800*
B Kits												
Recurring												

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** LAIRCM / Large Aircraft Infrared Countermeasures	**Modification Number / Title:** 1 / LARGE AIRCRAFT INFRARED COUNTERMEASURES C-130J
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: C130J	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0401134F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
EC-130Js:EQUIPMENT Group B (Active)	5 / 11.900	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 11.900
Subtotal: Recurring	*- / 11.900*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 11.900*
Subtotal: EC-130Js	*- / 15.700*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 15.700*
Subtotal: Procurement, All Modification Items	*- / 70.361*	*- / 4.088*	*- / -*	*- / -*	*- / 25.972*	*- / 25.972*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 100.421*
Support *(All Modification Items)*												
GROUP A: TOTAL NONRECURRING	- / 0.033	- / 3.100	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.133
Data	- / 0.753	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.753
SIM/TRAINER	- / -	0 / 4.420	0 / 3.180	- / -	0 / 2.870	0 / 2.870	- / -	- / -	- / -	- / -	- / -	0 / 10.470
SUPPORT-EQUIP	- / 1.500	- / 4.733	- / 0.866	- / -	- / 9.383	- / 9.383	- / -	- / -	- / -	- / -	- / -	- / 16.482
Change Orders	- / 2.283	- / -	- / -	- / -	- / 2.540	- / 2.540	- / -	- / -	- / -	- / -	- / -	- / 4.823
ICS-Labor	- / -	- / -	- / -	- / -	- / 1.828	- / 1.828	- / -	- / -	- / -	- / -	- / -	- / 1.828
PMA - Contractor Services	- / -	- / -	- / -	- / -	- / 0.245	- / 0.245	- / -	- / -	- / -	- / -	- / -	- / 0.245
OTHER GOVT	- / 7.923	- / 0.358	- / -	- / -	- / 1.895	- / 1.895	- / -	- / -	- / -	- / -	- / -	- / 10.176
PMA - Other Gov't Costs	- / 2.753	- / -	- / -	- / -	- / 1.005	- / 1.005	- / -	- / -	- / -	- / -	- / -	- / 3.758
Subtotal: Support	*- / 15.245*	*0 / 12.611*	*0 / 4.046*	*- / -*	*0 / 19.766*	*0 / 19.766*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*0 / 51.668*
Installation												
Modification Item 1 of 3: Basic Js (Block 20)	20 / 5.374	8 / 7.119	4 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	32 / 12.493
Modification Item 2 of 3: Basic Js (Block 30)	- / -	1 / 0.900	- / -	- / -	6 / 7.597	6 / 7.597	0 / 0.000	0 / 0.000	- / -	- / -	- / -	7 / 8.497
Modification Item 3 of 3: EC-130Js	3 / 5.769	2 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 5.769
Subtotal: Installation	*23 / 11.143*	*11 / 8.019*	*4 / 0.000*	*- / -*	*6 / 7.597*	*6 / 7.597*	*- / 0.000*	*- / 0.000*	*- / -*	*- / -*	*- / -*	*44 / 26.759*
Total												
Total Cost (Procurement + Support + Installation)	**96.749**	**24.718**	**4.046**	**0.000**	**53.335**	**53.335**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**178.848**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** LAIRCM / Large Aircraft Infrared Countermeasures	**Modification Number / Title:** 1 / LARGE AIRCRAFT INFRARED COUNTERMEASURES C-130J

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 3: Basic Js (Block 20)

Manufacturer Information

Manufacturer Name: NORTHROP GRUMMAN

Manufacturer Location: ROLLING MEADOWS

Administrative Leadtime *(in Months)*: 6

Production Leadtime *(in Months)*: 16

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	20 / 5.374	8 / 7.119	4 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	32 / 12.493
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	20 / 5.374	8 / 7.119	4 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	32 / 12.493

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	20	3	2	2	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	32
Out	16	4	3	2	2	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	32

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** LAIRCM / Large Aircraft Infrared Countermeasures	**Modification Number / Title:** 1 / LARGE AIRCRAFT INFRARED COUNTERMEASURES C-130J

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 2 of 3: Basic Js (Block 30)

Manufacturer Information

Manufacturer Name: Northrop Grumman

Manufacturer Location: ROLLING MEADOWS

Administrative Leadtime *(in Months)*: 6

Production Leadtime *(in Months)*: 16

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Apr 2017		Apr 2019				
Delivery Dates	Aug 2018		Aug 2020				

Installation Information

Method of Implementation: Contractor Facility

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	1 / 0.900	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.900
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	6 / 7.597	6 / 7.597	0 / 0.000	0 / 0.000	- / -	- / -	- / -	6 / 7.597
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	1 / 0.900	- / -	- / -	6 / 7.597	6 / 7.597	0 / 0.000	0 / 0.000	- / -	- / -	- / -	7 / 8.497

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	2	2	2	-	-	-	-	-	-	-	-	-	-	0	7
Out	0	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	2	2	2	-	-	-	-	-	-	-	-	-	0	7

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** LAIRCM / Large Aircraft Infrared Countermeasures	**Modification Number / Title:** 1 / LARGE AIRCRAFT INFRARED COUNTERMEASURES C-130J

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 3 of 3: EC-130Js

Manufacturer Information

Manufacturer Name: Northrop Grumman

Manufacturer Location: Rolling Meadows

Administrative Leadtime *(in Months)*: 6

Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	3 / 5.769	2 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 5.769
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	3 / 5.769	2 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 5.769

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	5
Out	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	5

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** LAIRCM / Large Aircraft Infrared Countermeasures	**Modification Number / Title:** 2 / LARGE AIRCRAFT INFRARED COUNTERMEASURES C-17
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	75.091	70.000	0.000	0.000	69.868	69.868	0.000	0.000	0.000	-	-	214.959
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	75.091	70.000	0.000	0.000	69.868	69.868	0.000	0.000	0.000	-	-	214.959
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**75.091**	**70.000**	**0.000**	**0.000**	**69.868**	**69.868**	**0.000**	**0.000**	**0.000**	**-**	**-**	**214.959**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

LAIRCM BLOCK 30 PROGRAM: The Large Aircraft Infrared Countermeasures (LAIRCM) system provides a significantly improved defensive capability for the C-17. This system is fully automatic following power-up and consists of Group A aircraft modification kits and Group B equipment.

LAIRCM enhancements and retrofits to the current configuration are planned for purchase and installation from FY16 and beyond. These enhancements include retrofits to bring the C-17 fleet to the LAIRCM Block 30 configuration. Other components are slated to be replaced with updated versions that address diminishing manufacturing sources (DMS) and reliability efforts.

The "Change Orders" line in the funding table includes DMS costs for the identification, review, and monitoring of items with high DMS risk potential, classification of identified items according to criticality, identification of alternatives for items having high DMS risks, and non-recurring engineering (NRE)/replacement cost for DMS components. Additionally, "change orders" include NRE/replacement costs for equipment updates to increase reliability, availability, and maintainability of LAIRCM group B components as identified during the fiscal year.

This program includes all efforts needed to procure, field, and support LAIRCM. These efforts include, but are not limited to, Hardware procurement, installation, installation support, initial and readiness spares, support equipment, government furnished equipment (GFE) and GFE repairs, Interim Contractor Support (ICS), depot standup, Systems Engineering and Program Management (SEPM), Failure Reporting and Corrective Analysis Support (FRACAS), Other Government Costs (OGCs), Pre-planned Product Improvements (P3I), program management and administration (PMA) costs, simulators and data.

NOTES:
FY17 OCO will procure up to 50 Blk 30 Group A kits; up to 44 Blk 30 Group B kits; up to 88 installs and ferry flights

Block 20 to Block 30 "Installation Cost" (44) and "Installation Schedule" (83) Qty totals are different since FY17 OCO funded installation for 39 aircraft are included in the FY17 OCO A Kit Procurement cost.

Milestone/Development Status

Development is complete.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** LAIRCM / Large Aircraft Infrared Countermeasures	**Modification Number / Title:** 2 / LARGE AIRCRAFT INFRARED COUNTERMEASURES C-17

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
	Total Obligation Authority	70.000	-	-	69.868	69.868	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**70.000**	**0.000**	**0.000**	**69.868**	**69.868**	**0.000**	**0.000**	**0.000**	**-**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** LAIRCM / Large Aircraft Infrared Countermeasures	**Modification Number / Title:** 2 / LARGE AIRCRAFT INFRARED COUNTERMEASURES C-17
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: C-17	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0401134F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Block 20 to Block 30												
A Kits												
Recurring												
Block 20 to Block 30:INSTALL KITS Group A (Active)	38 / 1.395	45 / 2.276	- / -	- / -	44 / 1.882	44 / 1.882	- / -	- / -	- / -	- / -	- / -	127 / 5.553
Subtotal: Recurring	*- / 1.395*	*- / 2.276*	*- / -*	*- / -*	*- / 1.882*	*- / 1.882*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 5.553*
B Kits												
Recurring												
Block 20 to Block 30:EQUIPMENT Group B (Active)	44 / 52.580	39 / 48.448	- / -	- / -	44 / 55.456	44 / 55.456	- / -	- / -	- / -	- / -	- / -	127 / 156.484
Subtotal: Recurring	*- / 52.580*	*- / 48.448*	*- / -*	*- / -*	*- / 55.456*	*- / 55.456*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 156.484*
Subtotal: Block 20 to Block 30	*- / 53.975*	*- / 50.724*	*- / -*	*- / -*	*- / 57.338*	*- / 57.338*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 162.037*
Subtotal: Procurement, All Modification Items	*- / 53.975*	*- / 50.724*	*- / -*	*- / -*	*- / 57.338*	*- / 57.338*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 162.037*
Support *(All Modification Items)*												
GROUP B: TOTAL NONRECURRING	- / 1.810	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.810
Change Orders	- / 4.453	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.453
Data	- / 0.390	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.390
SIM/TRAINER	1 / 0.020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.020
SUPPORT-EQUIP	- / 0.080	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.080
Mod of Spares	- / 5.400	- / 6.110	- / -	- / -	- / 4.733	- / 4.733	- / -	- / -	- / -	- / -	- / -	- / 16.243
ICS-Labor	- / 2.220	- / 1.944	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.164
PMA - Contractor Services	- / -	- / 2.443	- / -	- / -	- / 1.305	- / 1.305	- / -	- / -	- / -	- / -	- / -	- / 3.748
OTHER GOVT	- / 1.700	- / 2.088	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.788
Subtotal: Support	*1 / 16.073*	*- / 12.585*	*- / -*	*- / -*	*- / 6.038*	*- / 6.038*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*1 / 34.696*
Installation												
Modification Item 1 of 1: Block 20 to Block 30	38 / 5.043	45 / 6.691	- / -	- / -	44 / 6.492	44 / 6.492	- / -	- / -	- / -	- / -	- / -	127 / 18.226
Subtotal: Installation	*38 / 5.043*	*45 / 6.691*	*- / -*	*- / -*	*44 / 6.492*	*44 / 6.492*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*127 / 18.226*
Total												
Total Cost (Procurement + Support + Installation)	**75.091**	**70.000**	**0.000**	**0.000**	**69.868**	**69.868**	**0.000**	**0.000**	**0.000**	**-**	**-**	**214.959**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** LAIRCM / Large Aircraft Infrared Countermeasures	**Modification Number / Title:** 2 / LARGE AIRCRAFT INFRARED COUNTERMEASURES C-17

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 1: Block 20 to Block 30

Manufacturer Information

Manufacturer Name: The Boeing Company

Manufacturer Location: Long Beach, Ca

Administrative Leadtime *(in Months)*: 6

Production Leadtime *(in Months)*: 10

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Jan 2018		Apr 2019				
Delivery Dates	Nov 2018		Feb 2020				

Installation Information

Method of Implementation: Contractor Facility

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	38 / 5.043	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	38 / 5.043
FY 2017	- / -	45 / 6.691	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	45 / 6.691
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	44 / 6.492	44 / 6.492	- / -	- / -	- / -	- / -	- / -	44 / 6.492
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	38 / 5.043	45 / 6.691	- / -	- / -	44 / 6.492	44 / 6.492	- / -	- / -	- / -	- / -	- / -	127 / 18.226

Installation Schedule

		FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023					
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	0	-	-	-	-	-	-	-	-	-	11	11	11	11	11	11	11	11	11	11	11	6	-	-	-	-	-	-	-	0	127
Out	0	-	-	-	-	-	-	-	-	-	-	11	11	11	11	11	11	11	11	11	11	11	6	-	-	-	-	-	-	0	127

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** LAIRCM / Large Aircraft Infrared Countermeasures	**Modification Number / Title:** 3 / LARGE AIRCRAFT INFRARED COUNTERMEASURES C-5
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	26.783	0.000	0.000	26.575	26.575	0.000	0.000	0.000	0.000	-	53.358
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	26.783	0.000	0.000	26.575	26.575	0.000	0.000	0.000	0.000	-	53.358
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**26.783**	**0.000**	**0.000**	**26.575**	**26.575**	**0.000**	**0.000**	**0.000**	**0.000**	**-**	**53.358**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Large Aircraft Infrared Counter Measure (LAIRCM) Block 30, increases aircrew/aircraft survivability against Infrared (IR) Man-Portable Air Defense (MANPAD) System Missile threats. The system is fully automatic following power-up and consists of Group 'A' aircraft modification Kits (full/open competition) and Group 'B' aircraft Modification Kits (sole sourced to Northrop Grumman). LAIRCM Block 30 modified aircraft will include NexGen Infrared (IR) Missile Warning System (MWS) infrared sensors and upgraded LRU's, resulting in a total of 52 aircraft modified into the LAIRCM Block 30 configuration. The program includes all efforts needed to procure, fabricate, test, integrate, field and support LAIRCM. The efforts include, hardware procurement, installation, installation support, initial spares, Support Equipment (SE), Government Furnished Equipment (GFE) and GFE repairs, Interim Contractor Support (ICS), depot stand up, mod-line repairs, System Engineering and Program Management (SE/PM), Failure Reporting and Corrective Analysis Support (FRACAS), Technical Orders, Other Government Costs (OGS), Program Management and Administration (PMA) costs, and Non-Recurring Engineering (NRE) costs for equipment updates to increase reliability, availability and maintainability. This funding request will support potential DMS and obsolescence solutions, to include if optimal, life of type buys or bridge buys limited to the program of record quantity.

FY17 OCO Block 30 funds $26.782M include the fabrication, integration, installation, tests and delivery of 2 LAIRCM Block 30 configured aircraft. The initial two aircraft will be accomplished via depot installation.

Available funds in this modification are used for program management administration, change orders, and other government costs such as travel, directorate support, government furnished equipment (GFE), and over and above costs.

NOTE: LAIRCM Block 20 installations were completed 6 Jun 2016 on all C-5 aircraft.

Milestone/Development Status

Development is complete.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	26.783	-	-	26.575	26.575	-	-	-	-
Total:	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** LAIRCM / Large Aircraft Infrared Countermeasures	**Modification Number / Title:** 3 / LARGE AIRCRAFT INFRARED COUNTERMEASURES C-5

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Secondary Distribution	Total Obligation Authority	26.783	0.000	0.000	26.575	26.575	0.000	0.000	0.000	0.000

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** LAIRCM / Large Aircraft Infrared Countermeasures	**Modification Number / Title:** 3 / LARGE AIRCRAFT INFRARED COUNTERMEASURES C-5

ID Code (A=Service Ready, B=Not Service Ready) : B | **MDAP/MAIS Code:**

Models of Systems Affected: C-5B, C-5C, C-5M | **Modification Type:** Capability Improvement | **Related RDT&E PEs:** 0401134F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: C-5 Block 30												
A Kits												
Recurring												
C-5 Block 30:INSTALL KITS Group A (Active)	- / -	2 / 1.771	- / -	- / -	10 / 3.822	10 / 3.822	- / -	- / -	- / -	- / -	- / -	12 / 5.593
Subtotal: Recurring	- / -	- / 1.771	- / -	- / -	- / 3.822	- / 3.822	- / -	- / -	- / -	- / -	- / -	- / 5.593
B Kits												
Recurring												
C-5 Block 30:EQUIPMENT Group B (Active)	- / -	2 / 2.565	- / -	- / -	10 / 13.929	10 / 13.929	- / -	- / -	- / -	- / -	- / -	12 / 16.494
Subtotal: Recurring	- / -	- / 2.565	- / -	- / -	- / 13.929	- / 13.929	- / -	- / -	- / -	- / -	- / -	- / 16.494
Subtotal: C-5 Block 30	- / -	- / 4.336	- / -	- / -	- / 17.751	- / 17.751	- / -	- / -	- / -	- / -	- / -	- / 22.087
Subtotal: Procurement, All Modification Items	- / -	- / 4.336	- / -	- / -	- / 17.751	- / 17.751	- / -	- / -	- / -	- / -	- / -	- / 22.087
Support *(All Modification Items)*												
GROUP A: TOTAL NONRECURRING	- / -	- / 3.004	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.004
GROUP B: TOTAL NONRECURRING	- / -	- / 4.350	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.350
Change Orders	- / -	- / 4.398	- / -	- / -	- / 1.141	- / 1.141	- / -	- / -	- / -	- / -	- / -	- / 5.539
Data	- / -	- / 0.301	- / -	- / -	- / 0.340	- / 0.340	- / -	- / -	- / -	- / -	- / -	- / 0.641
SUPPORT-EQUIP	- / -	- / 0.123	- / -	- / -	- / 0.232	- / 0.232	- / -	- / -	- / -	- / -	- / -	- / 0.355
Type 1 Training	- / -	- / 0.027	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.027
Mod of Spares	- / -	- / 3.510	- / -	- / -	- / 1.491	- / 1.491	- / -	- / -	- / -	- / -	- / -	- / 5.001
ICS-Labor	- / -	- / -	- / -	- / -	- / 0.570	- / 0.570	- / -	- / -	- / -	- / -	- / -	- / 0.570
PMA - Contractor Services	- / -	- / 0.367	- / -	- / -	- / 0.376	- / 0.376	- / -	- / -	- / -	- / -	- / -	- / 0.743
PMA - Other Gov't Costs	- / -	- / 0.551	- / -	- / -	- / 0.560	- / 0.560	- / -	- / -	- / -	- / -	- / -	- / 1.111
OTHER GOVT	- / -	- / 2.030	- / -	- / -	- / 0.024	- / 0.024	- / -	- / -	- / -	- / -	- / -	- / 2.054
Subtotal: Support	- / -	- / 18.661	- / -	- / -	- / 4.734	- / 4.734	- / -	- / -	- / -	- / -	- / -	- / 23.395
Installation												
Modification Item 1 of 1: C-5 Block 30	- / -	2 / 3.786	- / -	- / -	10 / 4.090	10 / 4.090	- / -	- / -	- / -	- / -	- / -	12 / 7.876
Subtotal: Installation	- / -	2 / 3.786	- / -	- / -	10 / 4.090	10 / 4.090	- / -	- / -	- / -	- / -	- / -	12 / 7.876
Total												
Total Cost (Procurement + Support + Installation)	**-**	**26.783**	**0.000**	**0.000**	**26.575**	**26.575**	**0.000**	**0.000**	**0.000**	**0.000**	**-**	**53.358**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 1	**P-1 Line Item Number / Title:** LAIRCM / Large Aircraft Infrared Countermeasures	**Modification Number / Title:** 3 / LARGE AIRCRAFT INFRARED COUNTERMEASURES C-5

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 1: C-5 Block 30

Manufacturer Information

Manufacturer Name: Northrup Gruman

Manufacturer Location: Rolling Meadows, IL

Administrative Leadtime *(in Months)*: 6

Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Apr 2018		Apr 2019				
Delivery Dates	Apr 2019		Apr 2020				

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	2 / 3.786	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 3.786
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	10 / 4.090	10 / 4.090	- / -	- / -	- / -	- / -	- / -	10 / 4.090
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	2 / 3.786	- / -	- / -	10 / 4.090	10 / 4.090	- / -	- / -	- / -	- / -	- / -	12 / 7.876

Installation Schedule

		FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023					
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	0	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	2	2	2	2	2	-	-	-	-	-	0	12
Out	0	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	2	2	2	2	2	-	-	-	-	-	0	12

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft	**P-1 Line Item Number / Title:** A01000 / A-10

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0207131F	Other Related Program Elements: 0207131F

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	816.255	82.789	6.010	98.720	10.350	109.070	10.232	2.082	0.000	0.000	0.000	1,026.438
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	816.255	82.789	6.010	98.720	10.350	109.070	10.232	2.082	0.000	0.000	0.000	1,026.438
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**816.255**	**82.789**	**6.010**	**98.720**	**10.350**	**109.070**	**10.232**	**2.082**	**0.000**	**0.000**	**0.000**	**1,026.438**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This line item funds modifications and upgrades to the A-10 weapon system to ensure it remains combat effective. The A-10 is a twin engine, single seat aircraft capable of delivering a full range of air-to-ground munitions as well as self-defense air-to-air missiles. The A-10 provides persistent, effective and precise Close Air Support, Interdiction, Forward Air Controller (airborne), Combat Search & Rescue and Strike Control & Reconnaissance. Funding for this exhibit contained in PE 0207131F.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

FY19 OCO Justification:

Helmet Mounted Cueing System (HMCS) (FY19 OCO - $0.9M) Interim Contractor Support (ICS) - Interim Contract Support (ICS), is needed to repair critical components to keep units fully operational. The HMCS program is jointly managed by the A-10 and F-16 System Program Offices and provides extant A-10Cs and F-16C+ Block 30/32 aircraft with a Helmet Mounted Integrated Targeting (HMIT) System that will provide off-boresight cueing, targeting, and situational awareness capability.

Conversion Fuel Tanks (CFT) (FY19 OCO -$8.7M) procurement: The Conversion Fuel Tank (CFT) program's intent is to convert excess F-15 external fuel tanks for utilization as A-10 external fuel tanks. These tanks, once converted, enhance combat operations.

J-Hook, (FY19 OCO - $.75M) - The J-Hook system holds munition lanyards in place before and after the release of a munition; Validation/Verification of redesigned lanyard retention system and source data delivery.

Total may not add due to rounding.
Total PROG includes Prior Year and Cost To Go dollars.

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft	**P-1 Line Item Number / Title:** A01000 / A-10

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0207131F	Other Related Program Elements: 0207131F

Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	77.289	3.005	94.370	9.979	104.349	10.232	2.082	-	-
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	2.958	1.803	2.610	0.227	2.837	0.000	-	-	-
AFR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	2.542	1.202	1.740	0.144	1.884	0.000	0.000	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**82.789**	**6.010**	**98.720**	**10.350**	**109.070**	**10.232**	**2.082**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft

P-1 Line Item Number / Title:
A01000 / A-10

ID Code (A=Service Ready, B=Not Service Ready): B | **Program Elements for Code B Items:** 0207131F | **Other Related Program Elements:** 0207131F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	7856 / MODE S/5 (Capability Improvement)				- / -	- / 11.000	- / 0.000	- / 0.000	- / -	- / 0.000
P-40a***	9601 / ONBOARD OXYGEN GENERATING SYSTEM (OBOGS) (Reliability & Maintainability)				- / -	- / 16.150	- / -	- / -	- / -	- / -
P-40a***	9806 / A-10 Helmet Mounted Cueing System (Capability Improvement)				- / -	- / 6.500	- / 0.000	- / -	- / 0.900	- / 0.900
P-40a***	9808 / Covert/Overt Landing Light Requirement (COLA) (Capability Improvement)				- / -	- / 0.850	- / -	- / -	- / -	- / -
P-40a***	9810 / LARS-CSEL (Capability Improvement)				- / 4.000	- / 27.000	- / -	- / -	- / -	- / -
P-40a***	9811 / A-10 J-Hook System (Reliability & Maintainability)				- / -	- / -	- / -	- / -	- / 0.750	- / 0.750
P-3a	9804 / A-10 Wing Replacement Program (Reliability & Maintainability)		B		- / 812.255	- / 21.289	- / 0.000	- / 79.190	- / 0.000	- / 79.190
P-3a	9809 / ADS-B Out (Capability Improvement)		B		- / 0.000	- / 0.000	- / 6.010	- / 19.530	- / 0.000	- / 19.530
P-3a	9816 / A-10 Conversion Fuel Tanks (Capability Improvement)		B		- / -	- / 0.000	- / 0.000	- / 0.000	- / 8.700	- / 8.700
P-40	**Total Gross/Weapon System Cost**				**- / 816.255**	**- / 82.789**	**- / 6.010**	**- / 98.720**	**- / 10.350**	**- / 109.070**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	7856 / MODE S/5 (Capability Improvement)				- / 0.000	- / 0.000	- / -	- / -	- / -	- / 11.000
P-40a***	9601 / ONBOARD OXYGEN GENERATING SYSTEM (OBOGS) (Reliability & Maintainability)				- / -	- / -	- / -	- / -	- / -	- / 16.150
P-40a***	9806 / A-10 Helmet Mounted Cueing System (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / 7.400
P-40a***	9808 / Covert/Overt Landing Light Requirement (COLA) (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / 0.850
P-40a***	9810 / LARS-CSEL (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / 31.000
P-40a***	9811 / A-10 J-Hook System (Reliability & Maintainability)				- / -	- / -	- / -	- / -	- / -	- / 0.750
P-3a	9804 / A-10 Wing Replacement Program (Reliability & Maintainability)		B		- / 0.000	- / 0.000	- / -	- / -	- / -	- / 912.734
P-3a	9809 / ADS-B Out (Capability Improvement)		B		- / 10.232	- / 2.082	- / 0.000	- / -	- / -	- / 37.854
P-3a	9816 / A-10 Conversion Fuel Tanks (Capability Improvement)		B		- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / 8.700
P-40	**Total Gross/Weapon System Cost**				**- / 10.232**	**- / 2.082**	**- / 0.000**	**- / 0.000**	**- / 0.000**	**- / 1,026.438**

*** Although this is an Exhibit P-40a item, the actual exhibit is not included since all of the required information for this item is already being shown here.

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** A01000 / A-10	**Modification Number / Title:** 9804 / A-10 Wing Replacement Program
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	812.255	21.289	0.000	79.190	0.000	79.190	0.000	0.000	-	-	-	912.734
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	812.255	21.289	0.000	79.190	0.000	79.190	0.000	0.000	-	-	-	912.734
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**812.255**	**21.289**	**0.000**	**79.190**	**0.000**	**79.190**	**0.000**	**0.000**	**-**	**-**	**-**	**912.734**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Wing Replacement Program (WRP) incorporate several reliability and maintainability improvements to known critical fatigue locations. With these improvements, the Enhanced Wing Assemblies (EWAs) do not require major structural inspections for the first 10,000 hours of service life. Operational Requirement Document: A-10 Multi-Staged Improvement Program, dated 19 Oct 1999.

The FY19 funding is for the re-establishment of the EWA production line. Funds may be used to resolve emerging safety of flight and diminishing manufacturing sources issues, accommodate technology insertion and fulfill FAA or other mandates necessary to ensure continued aircrew safety and mission effectiveness.

Milestone/Development Status

Full rate production

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	21.289	-	79.190	-	79.190	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**21.289**	**0.000**	**79.190**	**0.000**	**79.190**	**0.000**	**0.000**	**-**	**-**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** A01000 / A-10	**Modification Number / Title:** 9804 / A-10 Wing Replacement Program
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: A-10	**Modification Type:** Reliability & Maintainability	**Related RDT&E PEs:** 0207131F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0207131F	- / 5.695	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.695
Procurement												
Modification Item 1 of 1: WRP kits, Center/Outer wing panels												
A Kits												
Recurring												
WRP kits, Center/Outer wing panels:INSTALL KITS Group A (Active)	86 / 371.561	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	86 / 371.561
WRP kits, Center/Outer wing panels:INSTALL KITS Group A (Guard)	54 / 214.830	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	54 / 214.830
WRP kits, Center/Outer wing panels:INSTALL KITS Group A (Reserve)	33 / 146.423	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	33 / 146.423
Subtotal: Recurring	*- / 732.814*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 732.814*
Subtotal: WRP kits, Center/Outer wing panels	*- / 732.814*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 732.814*
Subtotal: Procurement, All Modification Items	*- / 732.814*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 732.814*
Support *(All Modification Items)*												
GROUP B: TOTAL NONRECURRING	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000
GROUP A: TOTAL NONRECURRING	- / 0.000	- / 20.000	- / -	- / 79.190	- / -	- / 79.190	- / -	- / -	- / -	- / -	- / -	- / 99.190
Change Orders	- / 26.776	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 26.776
Data	- / 2.187	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.187
OTHER GOVT	- / 46.525	- / 1.289	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 47.814
PMA - Other Gov't Costs	- / 0.326	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.326
PMA - Contractor Services	- / 3.627	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.627
Subtotal: Support	*- / 79.441*	*- / 21.289*	*- / -*	*- / 79.190*	*- / -*	*- / 79.190*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 179.920*
Installation												
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*
Total												
Total Cost (Procurement + Support + Installation)	**812.255**	**21.289**	**0.000**	**79.190**	**0.000**	**79.190**	**0.000**	**0.000**	**-**	**-**	**-**	**912.734**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** A01000 / A-10	**Modification Number / Title:** 9804 / A-10 Wing Replacement Program

ID Code (A=Service Ready, B=Not Service Ready) : B | **MDAP/MAIS Code:**

Modification Item 1 of 1: WRP kits, Center/Outer wing panels

Manufacturer Information

Manufacturer Name: TBD | Manufacturer Location: TBD

Administrative Leadtime *(in Months)*: 0 | Production Leadtime *(in Months)*: 0

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation (Organic): Org/Intermediate | **Installation Quantity:** 0

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** A01000 / A-10	**Modification Number / Title:** 9809 / ADS-B Out
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	0.000	6.010	19.530	0.000	19.530	10.232	2.082	0.000	-	-	37.854
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	0.000	6.010	19.530	0.000	19.530	10.232	2.082	0.000	-	-	37.854
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**0.000**	**6.010**	**19.530**	**0.000**	**19.530**	**10.232**	**2.082**	**0.000**	**-**	**-**	**37.854**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This effort will ensure the A-10 platform complies with FAA rule 14 CFR part 91 mandating all Civilian and Military aircraft to provide AUTOMATIC DEPENDENT SURVEILLANCE - BROADCAST (ADS-B) Out surveillance. ADS-B Out is an FAA mandate to meet future air traffic demands and improve air traffic safety. This requirement was identified and approval for the A-10 by means of an AF Form 1067 dated 15 September 2006.

Milestone/Development Status

RDT&E Pre-Milestone C

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	3.005	15.180	-	15.180	10.232	2.082	-	-
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	1.803	2.610	-	2.610	-	-	-	-
AFR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	1.202	1.740	-	1.740	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**0.000**	**6.010**	**19.530**	**0.000**	**19.530**	**10.232**	**2.082**	**0.000**	**-**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** A01000 / A-10	**Modification Number / Title:** 9809 / ADS-B Out
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: A-10	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0207131F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: ADS-B Out												
A Kits												
Recurring												
ADS-B Out:INSTALL KITS Group A (Active)	- / -	- / -	80 / 3.005	79 / 15.180	- / -	79 / 15.180	- / 10.232	- / 2.082	- / -	- / -	- / -	159 / 30.499
ADS-B Out:INSTALL KITS Group A (Guard)	- / -	- / -	47 / 1.803	46 / 2.610	- / -	46 / 2.610	- / -	- / -	- / -	- / -	- / -	93 / 4.413
ADS-B Out:INSTALL KITS Group A (Reserve)	- / -	- / -	30 / 1.202	30 / 1.740	- / -	30 / 1.740	- / -	- / -	- / -	- / -	- / -	60 / 2.942
Subtotal: Recurring	- / -	- / -	- / 6.010	- / 19.530	- / -	- / 19.530	- / 10.232	- / 2.082	- / -	- / -	- / -	- / 37.854
Subtotal: ADS-B Out	- / -	- / -	- / 6.010	- / 19.530	- / -	- / 19.530	- / 10.232	- / 2.082	- / -	- / -	- / -	- / 37.854
Subtotal: Procurement, All Modification Items	- / -	- / -	- / 6.010	- / 19.530	- / -	- / 19.530	- / 10.232	- / 2.082	- / -	- / -	- / -	- / 37.854
Installation												
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total												
Total Cost (Procurement + Support + Installation)	**0.000**	**0.000**	**6.010**	**19.530**	**0.000**	**19.530**	**10.232**	**2.082**	**0.000**	**-**	**-**	**37.854**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** A01000 / A-10	**Modification Number / Title:** 9809 / ADS-B Out

ID Code (A=Service Ready, B=Not Service Ready) : B | **MDAP/MAIS Code:**

Modification Item 1 of 1: ADS-B Out

Manufacturer Information

Manufacturer Name: TBD	Manufacturer Location: Ogden
Administrative Leadtime *(in Months)*: 3	Production Leadtime *(in Months)*: 3

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Jan 2018	Jan 2019				
Delivery Dates		Apr 2018	Apr 2019				

Installation Information

Method of Implementation (Organic): Org/Intermediate | **Installation Quantity:** 283

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** A01000 / A-10	**Modification Number / Title:** 9816 / A-10 Conversion Fuel Tanks
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	0.000	0.000	0.000	8.700	8.700	0.000	0.000	0.000	0.000	-	8.700
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	0.000	0.000	8.700	8.700	0.000	0.000	0.000	0.000	-	8.700
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**0.000**	**0.000**	**8.700**	**8.700**	**0.000**	**0.000**	**0.000**	**0.000**	**-**	**8.700**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This program, P-3A Mod 9816, A-10 Conversion Fuel Tanks, is a new start.
The Conversion Fuel Tank (CFT) program will convert excess F-15 external fuel tanks for utilization as A-10 external fuel tanks. These CFTs tanks allow longer operational flights as well as the ability to load and unload the 30mm GAU-8 without having to download the CFT tanks from the aircraft.

Milestone/Development Status

Development is complete.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	-	8.700	8.700	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**0.000**	**0.000**	**0.000**	**8.700**	**8.700**	**0.000**	**0.000**	**0.000**	**0.000**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** A01000 / A-10	**Modification Number / Title:** 9816 / A-10 Conversion Fuel Tanks
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: A01000A	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0207131F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: test												
B Kits												
Recurring												
test:EQUIPMENT Group B (Active)	- / -	- / -	- / -	- / -	120 / 8.700	120 / 8.700	- / -	- / -	- / -	- / -	- / -	120 / 8.700
Subtotal: Recurring	- / -	- / -	- / -	- / -	- / 8.700	- / 8.700	- / -	- / -	- / -	- / -	- / -	- / 8.700
Subtotal: test	- / -	- / -	- / -	- / -	- / 8.700	- / 8.700	- / -	- / -	- / -	- / -	- / -	- / 8.700
Subtotal: Procurement, All Modification Items	- / -	- / -	- / -	- / -	- / 8.700	- / 8.700	- / -	- / -	- / -	- / -	- / -	- / 8.700
Installation												
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total												
Total Cost (Procurement + Support + Installation)	**-**	**0.000**	**0.000**	**0.000**	**8.700**	**8.700**	**0.000**	**0.000**	**0.000**	**0.000**	**-**	**8.700**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** A01000 / A-10	**Modification Number / Title:** 9816 / A-10 Conversion Fuel Tanks

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 1: test

Manufacturer Information

Manufacturer Name: NSPA

Manufacturer Location: Hill AFB

Administrative Leadtime *(in Months)*: 3

Production Leadtime *(in Months)*: 3

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates			May 2019				
Delivery Dates			Aug 2019				

Installation Information

Method of Implementation (Organic): Org/Intermediate

Installation Quantity: 0

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft	**P-1 Line Item Number / Title:** C130J0 / C-130J

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0401132F	Other Related Program Elements: 0401132F

Line Item MDAP/MAIS Code: 220

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	0.000	0.000	10.831	0.000	10.831	12.158	12.392	12.667	12.897	-	60.945
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	0.000	10.831	0.000	10.831	12.158	12.392	12.667	12.897	-	60.945
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**0.000**	**10.831**	**0.000**	**10.831**	**12.158**	**12.392**	**12.667**	**12.897**	**-**	**60.945**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This funding line is a part of C-130J Block 8.1. A database error created P-1 line 25 and 42. Congress is moving the FY18 funds, $10,727,000, in P-1 line 42 to P-1 Line 53, C-130J Mods. This FY19 funding should also be moved to P-1 line 53. Future budget requests will combine P-1 lines 25, 42 and 53.

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft	**P-1 Line Item Number / Title:** C130J0 / C-130J

ID Code (A=Service Ready, B=Not Service Ready): B | **Program Elements for Code B Items:** 0401132F | **Other Related Program Elements:** 0401132F

Line Item MDAP/MAIS Code: 220

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	5222 / 5222 (Capability Improvement)				- / -	- / -	- / -	- / 10.831	- / -	- / 10.831
P-40	**Total Gross/Weapon System Cost**				**- / -**	**- / 0.000**	**- / 0.000**	**- / 10.831**	**- / 0.000**	**- / 10.831**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	5222 / 5222 (Capability Improvement)				- / 12.158	- / 12.392	- / 12.667	- / 12.897	- / -	- / 60.945
P-40	**Total Gross/Weapon System Cost**				**- / 12.158**	**- / 12.392**	**- / 12.667**	**- / 12.897**	**- / -**	**- / 60.945**

*** Although this is an Exhibit P-40a item, the actual exhibit is not included since all of the required information for this item is already being shown here.

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft	**P-1 Line Item Number / Title:** F01500 / F-15

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0207130F, 0207134F, 0207445F, 0809731F	Other Related Program Elements: 0207130F, 0207134F

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	2,803.046	145.406	417.193	548.109	0.000	548.109	622.715	761.697	492.161	355.961	367.880	6,514.168
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	2,803.046	145.406	417.193	548.109	0.000	548.109	622.715	761.697	492.161	355.961	367.880	6,514.168
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**2,803.046**	**145.406**	**417.193**	**548.109**	**0.000**	**548.109**	**622.715**	**761.697**	**492.161**	**355.961**	**367.880**	**6,514.168**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This line item funds modifications to the F-15 aircraft. The F-15C/D is a twin engine (F-15C single seat; F-15D dual seat) supersonic, all-weather, day/night, air-superiority fighter. The F-15E is a twin engine, two seat, supersonic dual-role, day/night, all-weather, deep interdiction fighter with multi-role air-to-air capabilities. The overall goals of the budgeted modifications are to improve operational capability, reliability and maintainability, and flight safety. The specific modifications budgeted and programmed are below.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Funding for this exhibit is contained in PEs 0207130F, 0207134F, 0207445F, and 0809731F.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	144.804	414.193	470.005	0.000	470.005	540.503	684.467	406.932	328.601
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.602	3.000	78.104	-	78.104	82.212	77.230	85.229	27.360
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**145.406**	**417.193**	**548.109**	**0.000**	**548.109**	**622.715**	**761.697**	**492.161**	**355.961**

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft

P-1 Line Item Number / Title:
F01500 / F-15

ID Code (A=Service Ready, B=Not Service Ready): B

Program Elements for Code B Items: 0207130F, 0207134F, 0207445F, 0809731F

Other Related Program Elements: 0207130F, 0207134F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-40a***	1209 / F-15 C/D Flight Data Recorder (FDR) (Capability Improvement)				- / 24.240	- / 0.265	- / 0.303	- / 0.020	- / -	- / 0.020
P-40a***	1210 / F-15E Flight Data Recorder (FDR) (Capability Improvement)				- / 138.240	- / 1.785	- / 2.421	- / 0.027	- / -	- / 0.027
P-40a***	8353 / F-15E -JOINT HELMET-MOUNTED CUEING SYSTEM (Reliability & Maintainability)				- / 102.724	- / -	- / 1.200	- / 0.600	- / -	- / 0.600
P-40a***	8662 / AETC MTD UPGRADES-FIELD TRAINING DETACHMENTS (Service Life Extension)				- / 6.068	- / 0.103	- / 1.119	- / 1.128	- / -	- / 1.128
P-40a***	8794 / F-15C/D Beyond Line Of Sight Communications (Capability Improvement)				- / 54.339	- / -	- / 0.088	- / -	- / -	- / -
P-40a***	8797 / F-15C Passive Attack Sensor System (Capability Improvement)				- / 27.873	- / 0.704	- / -	- / -	- / -	- / -
P-40a***	8798 / 5th to 4th Gen Gateway (Capability Improvement)				- / -	- / -	- / 0.844	- / -	- / -	- / -
P-40a***	8803 / F-15 C/D/MUOS (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / -
P-40a***	8804 / F-15 F-15 E/MUOS (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / -
P-40a***	8805 / F-15 C/D SLEP Wings (Service Life Extension)				- / -	- / -	- / -	- / -	- / -	- / -
P-40a***	8806 / F-15 C/D Cabin Pressure Indicator (Safety)				- / 1.977	- / -	- / 0.076	- / 0.120	- / -	- / 0.120
P-40a***	8807 / F-15 E Cabin Pressure Indicator (Safety)				- / 3.332	- / -	- / 0.126	- / 0.180	- / -	- / 0.180
P-40a***	8808 / F-15 C/D ADS-B (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / -
P-40a***	8809 / F-15E ADS-B (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / -
P-40a***	8811 / F-15E SATCOM UON (Other)				- / 10.300	- / 7.400	- / 0.000	- / 0.000	- / -	- / 0.000
P-40a***	8812 / F-15 E Integrated Aircrew Trainer (Other)				- / -	- / -	- / -	- / 4.963	- / -	- / 4.963
P-40a***	8815 / F-15C Simulator Upgrade (Capability Improvement)				- / -	- / -	- / 15.000	- / 0.000	- / 0.000	- / 0.000
P-40a***	8816 / F-15C/D APG-63(V)3 Common Config (Reliability & Maintainability)				- / -	- / -	- / -	- / 4.326	- / -	- / 4.326
P-40a***	99999U / LOW COST RETROFIT MODS (Service Life Extension)				- / 5.763	- / 0.001	- / 0.001	- / 0.001	- / -	- / 0.001
P-40a***	99999X / Low Cost Modifications (Capability Improvement)				- / 5.759	- / 0.028	- / 0.001	- / 0.001	- / -	- / 0.001
P-3a	1202 / F-15E Radar Modernization Program APG-82(V)1 (Capability Improvement)		A		- / 1,035.191	- / 129.496	- / 229.764	- / 199.627	- / 0.000	- / 199.627
P-3a	1 / Advanced Display Core Processor, ADCP II-E (Reliability & Maintainability)		B		- / 0.000	- / 3.765	- / 50.477	- / 37.340	- / 0.000	- / 37.340
P-3a	1205 / :Advanced Display Core Processor, ADCP II-C (Reliability & Maintainability)		B		- / 0.000	- / 1.859	- / 6.475	- / 56.791	- / 0.000	- / 56.791
P-3a	1206 / F-15C Infrared Search and Track (IRST) (Capability Improvement)		B		- / -	- / 0.000	- / 55.133	- / 61.889	- / 0.000	- / 61.889
P-3a	6158 / F-15C/D APG-63(V)3 radar upgrade (Capability Improvement)		B		- / 1,359.205	- / 0.000	- / 16.723	- / 90.524	- / 0.000	- / 90.524
P-3a	8754 / F-15C/D IFF Mode 5 (Reliability & Maintainability)		A		- / -	- / 0.000	- / 0.000	- / 9.540	- / 0.000	- / 9.540
P-3a	8755 / F-15E IFF MODE 5 (Reliability & Maintainability)		B		- / 28.035	- / 0.000	- / 7.976	- / 15.725	- / 0.000	- / 15.725

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft	**P-1 Line Item Number / Title:** F01500 / F-15

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0207130F, 0207134F, 0207445F, 0809731F	Other Related Program Elements: 0207130F, 0207134F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-3a	8799 / F-15C MIDS JTRS (Capability Improvement)		B		- / 0.000	- / 0.000	- / 7.430	- / 21.360	- / 0.000	- / 21.360
P-3a	8800 / F-15E MIDS JTRS (Capability Improvement)		B		- / 0.000	- / 0.000	- / 13.823	- / 19.040	- / 0.000	- / 19.040
P-3a	8801 / F-15 C/D SLEP Longerons (Service Life Extension)		B		- / -	- / 0.000	- / 7.023	- / 5.900	- / 0.000	- / 5.900
P-3a	8810 / F-15E APG-82(V)1 Common Config (Capability Improvement)		B		- / 0.000	- / 0.000	- / 1.190	- / 19.007	- / 0.000	- / 19.007
P-40	**Total Gross/Weapon System Cost**				**- / 2,803.046**	**- / 145.406**	**- / 417.193**	**- / 548.109**	**- / 0.000**	**- / 548.109**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	1209 / F-15 C/D Flight Data Recorder (FDR) (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / 24.828
P-40a***	1210 / F-15E Flight Data Recorder (FDR) (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / 142.473
P-40a***	8353 / F-15E -JOINT HELMET-MOUNTED CUEING SYSTEM (Reliability & Maintainability)				- / -	- / -	- / -	- / -	- / -	- / 104.524
P-40a***	8662 / AETC MTD UPGRADES-FIELD TRAINING DETACHMENTS (Service Life Extension)				- / 1.147	- / 1.167	- / 1.190	- / 1.212	- / -	- / 13.134
P-40a***	8794 / F-15C/D Beyond Line Of Sight Communications (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / 54.427
P-40a***	8797 / F-15C Passive Attack Sensor System (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / 28.577
P-40a***	8798 / 5th to 4th Gen Gateway (Capability Improvement)				- / -	- / -	- / -	- / 14.194	- / -	- / 15.038
P-40a***	8803 / F-15 C/D/MUOS (Capability Improvement)				- / 0.630	- / 8.130	- / 20.450	- / 5.182	- / 40.550	- / 74.942
P-40a***	8804 / F-15 F-15 E/MUOS (Capability Improvement)				- / 0.630	- / 8.050	- / 8.680	- / 30.952	- / 41.850	- / 90.162
P-40a***	8805 / F-15 C/D SLEP Wings (Service Life Extension)				- / 99.094	- / 4.015	- / -	- / -	- / -	- / 103.109
P-40a***	8806 / F-15 C/D Cabin Pressure Indicator (Safety)				- / -	- / -	- / -	- / -	- / -	- / 2.173
P-40a***	8807 / F-15 E Cabin Pressure Indicator (Safety)				- / -	- / -	- / -	- / -	- / -	- / 3.638
P-40a***	8808 / F-15 C/D ADS-B (Capability Improvement)				- / -	- / 4.570	- / 12.374	- / -	- / -	- / 16.944
P-40a***	8809 / F-15E ADS-B (Capability Improvement)				- / -	- / 4.565	- / 12.379	- / 11.507	- / 23.267	- / 51.718
P-40a***	8811 / F-15E SATCOM UON (Other)				- / -	- / -	- / -	- / -	- / -	- / 17.700
P-40a***	8812 / F-15 E Integrated Aircrew Trainer (Other)				- / -	- / -	- / -	- / -	- / -	- / 4.963
P-40a***	8815 / F-15C Simulator Upgrade (Capability Improvement)				- / 0.000	- / -	- / -	- / -	- / -	- / 15.000
P-40a***	8816 / F-15C/D APG-63(V)3 Common Config (Reliability & Maintainability)				- / 4.352	- / 1.526	- / -	- / -	- / -	- / 10.204
P-40a***	99999U / LOW COST RETROFIT MODS (Service Life Extension)				- / 0.001	- / 0.001	- / -	- / -	- / -	- / 5.768
P-40a***	99999X / Low Cost Modifications (Capability Improvement)				- / 0.001	- / 0.001	- / -	- / -	- / -	- / 5.791
P-3a	1202 / F-15E Radar Modernization Program APG-82(V)1 (Capability Improvement)		A		- / 200.425	- / 296.936	- / 92.559	- / 94.244	- / 37.600	- / 2,315.842

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force		**Date:** February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft	**P-1 Line Item Number / Title:** F01500 / F-15	
ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0207130F, 0207134F, 0207445F, 0809731F	**Other Related Program Elements:** 0207130F, 0207134F
Line Item MDAP/MAIS Code: N/A		

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	**Title***	**Subexhibits**	**ID CD**	**MDAP/ MAIS Code**	**Quantity / Total Cost** *(Each) I ($ M)*	**Quantity / Total Cost** *(Each) I ($ M)*	**Quantity / Total Cost** *(Each) I ($ M)*	**Quantity / Total Cost** *(Each) I ($ M)*	**Quantity / Total Cost** *(Each) I ($ M)*	**Quantity / Total Cost** *(Each) I ($ M)*
P-3a	1 / Advanced Display Core Processor, ADCP II-E (Reliability & Maintainability)		B		- / 44.357	- / 70.627	- / 74.483	- / 75.842	- / -	- / 356.891
P-3a	1205 / :Advanced Display Core Processor, ADCP II-C (Reliability & Maintainability)		B		- / 89.600	- / 61.756	- / 72.364	- / 33.797	- / -	- / 322.642
P-3a	1206 / F-15C Infrared Search and Track (IRST) (Capability Improvement)		B		- / 34.533	- / 121.077	- / 35.615	- / 20.918	- / 92.711	- / 421.876
P-3a	6158 / F-15C/D APG-63(V)3 radar upgrade (Capability Improvement)		B		- / 23.681	- / 40.540	- / 42.909	- / 3.769	- / 0.000	- / 1,577.351
P-3a	8754 / F-15C/D IFF Mode 5 (Reliability & Maintainability)		A		- / 28.545	- / 0.548	- / 0.000	- / 0.000	- / -	- / 38.633
P-3a	8755 / F-15E IFF MODE 5 (Reliability & Maintainability)		B		- / 4.470	- / 0.520	- / 0.000	- / 0.000	- / 0.000	- / 56.726
P-3a	8799 / F-15C MIDS JTRS (Capability Improvement)		B		- / 26.280	- / 46.118	- / 41.832	- / 6.648	- / 37.360	- / 187.028
P-3a	8800 / F-15E MIDS JTRS (Capability Improvement)		B		- / 27.844	- / 36.018	- / 40.259	- / 19.962	- / 15.800	- / 172.746
P-3a	8801 / F-15 C/D SLEP Longerons (Service Life Extension)		B		- / 24.500	- / 31.520	- / 32.100	- / 32.678	- / 78.742	- / 212.463
P-3a	8810 / F-15E APG-82(V)1 Common Config (Capability Improvement)		B		- / 12.625	- / 24.012	- / 4.967	- / 5.056	- / -	- / 66.857
P-40	**Total Gross/Weapon System Cost**				**- / 622.715**	**- / 761.697**	**- / 492.161**	**- / 355.961**	**- / 367.880**	**- / 6,514.168**

*** Although this is an Exhibit P-40a item, the actual exhibit is not included since all of the required information for this item is already being shown here.

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01500 / F-15	**Modification Number / Title:** 1202 / F-15E Radar Modernization Program APG-82(V)1
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	1,035.191	129.496	229.764	199.627	0.000	199.627	200.425	296.936	92.559	94.244	37.600	2,315.842
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,035.191	129.496	229.764	199.627	0.000	199.627	200.425	296.936	92.559	94.244	37.600	2,315.842
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,035.191**	**129.496**	**229.764**	**199.627**	**0.000**	**199.627**	**200.425**	**296.936**	**92.559**	**94.244**	**37.600**	**2,315.842**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	17.326	12.002	5.100	-	5.100	2.000	-	-	-	-	36.428
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

F-15E Radar Modernization Program (RMP), designated the APG-82(V)1, replaces the legacy radar using existing technology from other DOD platforms. It solves parts obsolescence problems and provides improved reliability and performance (increased synthetic aperture radar (SAR) range and resolution), including air-to-air and air-to-ground modes. Also provides for future growth. Total aircraft requirement: 217. This program funded Research Development Test and Evaluation (RDT&E) in PE 0207134F. Requirements document: F-15E Radar Modernization Program CDD dated 21 March 2005. In Aug O8, AF/ASRD again reviewed the Capabilities Production Document (CPD) requirement and determined it was no longer necessary since the operational requirements in the Capabilities Development Document were still valid and the program had already entered MS C/LRIP.

Funding may be used to resolve Diminishing Manufacturing Sources/Material Shortages (DMSMS) and/or obsolescence issues. DMSMS activities may include, but are not limited to, bridge buys, life of type buys, buys to protect production schedule, and minor engineering efforts for redesign. DMSMS costs are included in Group B NRE; SE/PM costs are include in the Group B recurring; and Depot Costs are included in Support Equipment.

To account for Automatic Transformer Rectifier Unit (ATRU) kits that were not installed on the first 89 APG-82(V)1 RMP aircraft, $9.460M of funding has moved to MOD number 8810, APG-82(V)1 Common Config.

Milestone/Development Status

Development is complete.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	129.496	229.764	199.627	-	199.627	200.425	296.936	92.559	94.244
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**129.496**	**229.764**	**199.627**	**0.000**	**199.627**	**200.425**	**296.936**	**92.559**	**94.244**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01500 / F-15	**Modification Number / Title:** 1202 / F-15E Radar Modernization Program APG-82(V)1
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: F-15E	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0207134F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: APG-82(v)1												
A Kits												
Recurring												
APG-82(v)1:INSTALL KITS Group A (Active)	127 / 194.695	13 / 17.657	29 / 42.365	17 / 31.620	- / -	17 / 31.620	16 / 32.736	15 / 35.100	- / -	- / -	- / -	217 / 354.173
Subtotal: Recurring	*- / 194.695*	*- / 17.657*	*- / 42.365*	*- / 31.620*	*- / -*	*- / 31.620*	*- / 32.736*	*- / 35.100*	*- / -*	*- / -*	*- / -*	*- / 354.173*
B Kits												
Recurring												
APG-82(v)1:EQUIPMENT Group B (Active)	127 / 577.667	13 / 47.376	29 / 149.268	17 / 88.910	- / -	17 / 88.910	16 / 92.048	15 / 90.570	- / -	- / -	- / -	217 / 1,045.839
Subtotal: Recurring	*- / 577.667*	*- / 47.376*	*- / 149.268*	*- / 88.910*	*- / -*	*- / 88.910*	*- / 92.048*	*- / 90.570*	*- / -*	*- / -*	*- / -*	*- / 1,045.839*
Subtotal: APG-82(v)1	*- / 772.362*	*- / 65.033*	*- / 191.633*	*- / 120.530*	*- / -*	*- / 120.530*	*- / 124.784*	*- / 125.670*	*- / -*	*- / -*	*- / -*	*- / 1,400.012*
Subtotal: Procurement, All Modification Items	*- / 772.362*	*- / 65.033*	*- / 191.633*	*- / 120.530*	*- / -*	*- / 120.530*	*- / 124.784*	*- / 125.670*	*- / -*	*- / -*	*- / -*	*- / 1,400.012*
Support *(All Modification Items)*												
GROUP B: TOTAL NONRECURRING	- / 121.034	- / 4.201	- / 6.657	- / 8.600	- / -	- / 8.600	- / 5.100	- / 5.400	- / -	- / -	- / -	- / 150.992
OTHER GOVT	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 72.500	- / 43.000	- / 48.000	- / -	- / 163.500
Change Orders	- / 60.598	- / 39.792	- / 6.919	- / 26.927	- / -	- / 26.927	- / 20.221	- / 41.894	- / 3.259	- / 3.644	- / 12.200	- / 215.454
Data	- / 13.295	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 13.295
Type 1 Training	- / 0.501	- / -	- / -	- / 0.000	- / -	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 0.501
SUPPORT-EQUIP	- / 8.075	- / 0.000	- / 4.370	- / 1.015	- / -	- / 1.015	- / 1.020	- / 1.035	- / -	- / -	- / -	- / 15.515
ICS-Labor	- / 25.339	- / 10.340	- / 5.240	- / 21.200	- / -	- / 21.200	- / 23.900	- / 23.000	- / 20.000	- / 15.000	- / 9.000	- / 153.019
PMA - Other Gov't Costs	- / 10.270	- / 3.500	- / 3.345	- / 3.000	- / -	- / 3.000	- / 3.000	- / 3.000	- / 3.000	- / 3.000	- / 3.000	- / 35.115
Subtotal: Support	*- / 239.112*	*- / 57.833*	*- / 26.531*	*- / 60.742*	*- / -*	*- / 60.742*	*- / 53.241*	*- / 146.829*	*- / 69.259*	*- / 69.644*	*- / 24.200*	*- / 747.391*
Installation												
Modification Item 1 of 1: APG-82(v)1	44 / 23.717	17 / 6.630	24 / 11.600	24 / 18.355	- / -	24 / 18.355	24 / 22.400	24 / 24.437	24 / 23.300	24 / 24.600	12 / 13.400	217 / 168.439
Subtotal: Installation	*44 / 23.717*	*17 / 6.630*	*24 / 11.600*	*24 / 18.355*	*- / -*	*24 / 18.355*	*24 / 22.400*	*24 / 24.437*	*24 / 23.300*	*24 / 24.600*	*12 / 13.400*	*217 / 168.439*
Total												
Total Cost (Procurement + Support + Installation)	**1,035.191**	**129.496**	**229.764**	**199.627**	**0.000**	**199.627**	**200.425**	**296.936**	**92.559**	**94.244**	**37.600**	**2,315.842**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01500 / F-15	**Modification Number / Title:** 1202 / F-15E Radar Modernization Program APG-82(V)1

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 1 of 1: APG-82(v)1

Manufacturer Information

Manufacturer Name: Raytheon

Manufacturer Location: El Segundo CA/Forest MS

Administrative Leadtime *(in Months)*: 1

Production Leadtime *(in Months)*: 18

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Mar 2017	Mar 2018	Mar 2019	Mar 2020	Mar 2021		
Delivery Dates	Sep 2018	Sep 2019	Sep 2020	Sep 2021	Sep 2022		

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	44 / 23.717	17 / 6.630	24 / 11.600	24 / 18.355	- / -	24 / 18.355	18 / 14.900	- / -	- / -	- / -	- / -	127 / 75.202
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	6 / 7.500	7 / 7.127	- / -	- / -	- / -	13 / 14.627
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	17 / 17.310	12 / 11.650	- / -	- / -	29 / 28.960
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 11.650	5 / 5.125	- / -	17 / 16.775
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 16.400	- / -	16 / 16.400
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 3.075	12 / 13.400	15 / 16.475
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	44 / 23.717	17 / 6.630	24 / 11.600	24 / 18.355	- / -	24 / 18.355	24 / 22.400	24 / 24.437	24 / 23.300	24 / 24.600	12 / 13.400	217 / 168.439

Installation Schedule

		FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023					
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	44	4	5	4	4	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	12	217
Out	39	5	4	5	4	4	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	18	217

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01500 / F-15	**Modification Number / Title:** 1 / Advanced Display Core Processor, ADCP II-E
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	3.765	50.477	37.340	0.000	37.340	44.357	70.627	74.483	75.842	-	356.891
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	3.765	50.477	37.340	0.000	37.340	44.357	70.627	74.483	75.842	-	356.891
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**3.765**	**50.477**	**37.340**	**0.000**	**37.340**	**44.357**	**70.627**	**74.483**	**75.842**	**-**	**356.891**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	0.500	6.220	6.400	-	6.400	6.600	-	-	-	3.400	23.120
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The F-15E requires a replacement Advanced Display Core Processor (ADCP II) to meet future and projected subsystem demands. The ADCP II program will equip the F-15E with a central processor with sufficient memory, processing throughput, and Input/Output bandwidth to meet the Operational Flight Program growth requirements of Suite 8 and beyond, and to support other major platform modernization upgrades such as EPAWSS. The increased capability of ADCP II will also enable the F-15E to fully exploit the APG-82(V)1 radar capabilities, to include increased target tracks, mode simultaneity, and increased track data. The ADCP II is required to meet all APG-82(V)1 key system attributes.

Requirements: AF Form 1067 approved July 2012
DT&E 4Q2016; FDE 4Q2017; MS C: 4Q2017

Funding may be used to resolve Diminishing Manufacturing Sources/Material Shortages (DMSMS) and/or obsolescence issues. DMSMS activities may include, but are not limited to, bridge buys, life of type buys, buys to protect production schedule, and minor engineering efforts for redesign.

DMSMS costs are included in Group B recurring; SE/PM costs are include in the Group B recurring; and Depot Costs are included in the Other Govt.

This program has associated Research Development Test and Evaluation (RDT&E) funding in PE 0207134F.

Milestone/Development Status

Critical Design Review (CDR) completed 4QFY2013, Milestone B completed 1QFY2014. Milestone C completed 4QFY2017.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	3.765	50.477	37.340	-	37.340	44.357	70.627	74.483	75.842
Total:	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01500 / F-15	**Modification Number / Title:** 1 / Advanced Display Core Processor, ADCP II-E
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Secondary Distribution	Total Obligation Authority	3.765	50.477	37.340	0.000	37.340	44.357	70.627	74.483	75.842

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01500 / F-15	**Modification Number / Title:** 1 / Advanced Display Core Processor, ADCP II-E
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: F-15E	**Modification Type:** Reliability & Maintainability	**Related RDT&E PEs:** 0207134F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0207134F	- / 303.015	- / 78.626	- / 51.513	- / 0.000	- / -	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / 433.154
Procurement												
Modification Item 1 of 1: ADCP II E												
A Kits												
Recurring												
ADCP II E:INSTALL KITS Group A (Active)	- / -	2 / 0.024	31 / 0.394	36 / 0.470	- / -	36 / 0.470	36 / 0.484	53 / 0.733	59 / 0.840	0 / 0.000	- / -	217 / 2.945
Subtotal: Recurring	*- / -*	*- / 0.024*	*- / 0.394*	*- / 0.470*	*- / -*	*- / 0.470*	*- / 0.484*	*- / 0.733*	*- / 0.840*	*- / 0.000*	*- / -*	*- / 2.945*
B Kits												
Recurring												
ADCP II E:EQUIPMENT Group B (Active)	- / -	2 / 1.301	31 / 35.247	36 / 30.312	- / -	36 / 30.312	36 / 30.425	53 / 43.344	59 / 48.502	0 / 1.735	- / -	217 / 190.866
Subtotal: Recurring	*- / -*	*- / 1.301*	*- / 35.247*	*- / 30.312*	*- / -*	*- / 30.312*	*- / 30.425*	*- / 43.344*	*- / 48.502*	*- / 1.735*	*- / -*	*- / 190.866*
Subtotal: ADCP II E	*- / -*	*- / 1.325*	*- / 35.641*	*- / 30.782*	*- / -*	*- / 30.782*	*- / 30.909*	*- / 44.077*	*- / 49.342*	*- / 1.735*	*- / -*	*- / 193.811*
Subtotal: Procurement, All Modification Items	*- / -*	*- / 1.325*	*- / 35.641*	*- / 30.782*	*- / -*	*- / 30.782*	*- / 30.909*	*- / 44.077*	*- / 49.342*	*- / 1.735*	*- / -*	*- / 193.811*
Support *(All Modification Items)*												
GROUP B: TOTAL NONRECURRING	- / 0.000	- / -	- / 10.308	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 10.308
Type 1 Training	- / -	- / -	- / -	- / 0.043	- / -	- / 0.043	- / 0.043	- / -	- / 0.050	- / 0.000	- / -	- / 0.136
Change Orders	- / -	- / 2.260	- / 0.000	- / -	- / -	- / -	- / -	- / 5.252	- / 5.290	- / 58.587	- / -	- / 71.389
Data	- / -	- / 0.012	- / 1.337	- / 1.406	- / -	- / 1.406	- / 1.448	- / 1.602	- / 1.690	- / 1.328	- / -	- / 8.823
SUPPORT-EQUIP	- / -	- / 0.000	- / 0.000	- / -	- / -	- / -	- / 0.000	- / -	- / -	- / -	- / -	- / 0.000
ICS-Labor	- / -	- / -	- / 0.527	- / 0.773	- / -	- / 0.773	- / 1.265	- / 1.992	- / 2.817	- / 3.607	- / -	- / 10.981
OTHER GOVT	- / -	- / 0.010	- / 0.185	- / 1.134	- / -	- / 1.134	- / 7.625	- / 12.945	- / 9.959	- / 8.054	- / -	- / 39.912
PMA - Other Gov't Costs	- / -	- / 0.158	- / 2.479	- / 2.902	- / -	- / 2.902	- / 2.699	- / 4.391	- / 4.613	- / 1.523	- / -	- / 18.765
Subtotal: Support	*- / 0.000*	*- / 2.440*	*- / 14.836*	*- / 6.258*	*- / -*	*- / 6.258*	*- / 13.080*	*- / 26.182*	*- / 24.419*	*- / 73.099*	*- / -*	*- / 160.314*
Installation												
Modification Item 1 of 1: ADCP II E	- / -	- / -	- / -	28 / 0.300	- / -	28 / 0.300	22 / 0.368	37 / 0.368	44 / 0.722	86 / 1.008	- / -	217 / 2.766
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*28 / 0.300*	*- / -*	*28 / 0.300*	*22 / 0.368*	*37 / 0.368*	*44 / 0.722*	*86 / 1.008*	*- / -*	*217 / 2.766*
Total												
Total Cost (Procurement + Support + Installation)	**0.000**	**3.765**	**50.477**	**37.340**	**0.000**	**37.340**	**44.357**	**70.627**	**74.483**	**75.842**	**-**	**356.891**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01500 / F-15	**Modification Number / Title:** 1 / Advanced Display Core Processor, ADCP II-E

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 1: ADCP II E

Manufacturer Information

Manufacturer Name: TBD

Manufacturer Location: TBD

Administrative Leadtime *(in Months)*: 3

Production Leadtime *(in Months)*: 15

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Jun 2017	Jan 2018	Jan 2019	Jan 2020	Jan 2021	Jan 2022	
Delivery Dates	Sep 2018	Apr 2019	Apr 2020	Apr 2021	Apr 2022	Apr 2023	

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	2 / 0.020	- / -	2 / 0.020	- / -	- / -	- / -	- / -	- / -	2 / 0.020
FY 2018	- / -	- / -	- / -	26 / 0.280	- / -	26 / 0.280	5 / 0.085	- / -	- / -	- / -	- / -	31 / 0.365
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	17 / 0.283	19 / 0.190	- / -	- / -	- / -	36 / 0.473
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	18 / 0.178	18 / 0.288	- / -	- / -	36 / 0.466
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	26 / 0.434	27 / 0.324	- / -	53 / 0.758
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	59 / 0.684	- / -	59 / 0.684
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	28 / 0.300	- / -	28 / 0.300	22 / 0.368	37 / 0.368	44 / 0.722	86 / 1.008	- / -	217 / 2.766

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	0	0	0	0	0	0	0	0	2	0	13	13	3	2	8	9	9	10	9	9	9	9	13	13	22	22	22	20	0	217
Out	0	-	-	-	-	-	-	-	-	2	0	13	13	3	2	8	9	9	10	9	9	9	9	13	13	22	22	22	20	0	217

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01500 / F-15	**Modification Number / Title:** 1205 / :Advanced Display Core Processor, ADCP II-C
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	1.859	6.475	56.791	0.000	56.791	89.600	61.756	72.364	33.797	-	322.642
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	1.859	6.475	56.791	0.000	56.791	89.600	61.756	72.364	33.797	-	322.642
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**1.859**	**6.475**	**56.791**	**0.000**	**56.791**	**89.600**	**61.756**	**72.364**	**33.797**	**-**	**322.642**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	0.570	3.470	6.660	-	6.660	6.860	-	-	-	7.010	24.570
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The ADCP II upgrade ensures continued combat viability for the F-15C platform. The F-15C central computer (CC) and cockpit radar display (Vertical Situation Display) are functionally obsolete. CC speed and memory are unable to support growth beyond Operational Flight Plan (OFP) Suite 7C, and the monochrome radar display is the #1 mission degrader in the cockpit. The ADCP II system for the F-15C consists of the ADCP II Line Replaceable Unit (LRU), Vertical Situation Display Replacement (VSDR), and a Remote Interface Unit (RIU). Replacing the CC with the ADCP II mission computer (common with F-15E) will provide increased throughput and memory capability to support (OFP) upgrades beyond Suite 7C, enabling the aircraft to meet requirements of expanded datalink capabilities, sensors, electronic warfare, and forward/netcentric operations. Replacing the monochrome display with a 5x5 color display will reduce maintenance and sustainment costs while increasing the capability to fully support the APG-63(V)3 Active Electronic Scanning Array (AESA) radar, fighter datalink, and video recording. This program has associated RDT&E funding in PE 0207134F.

Requirements: AF Form 1067 approved July 2012

Funding may be used to resolve Diminishing Manufacturing Sources/Material Shortages (DMSMS) and/or obsolescence issues. DMSMS activities may include, but are not limited to, bridge buys, life of type buys, buys to protect production schedule, and minor engineering efforts for redesign.

DMSMS costs are included in Group B recurring,SE/PM costs are included in the Group B recurring; and Depot Costs are included in the Support Equipment.

Milestone/Development Status

Development cost and milestones are reflected in the ADCP II-E program, MN 1202B.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	1.859	6.475	35.048	-	35.048	65.036	33.623	43.379	29.815
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	21.743	-	21.743	24.564	28.133	28.985	3.982
Total:	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01500 / F-15	**Modification Number / Title:** 1205 / :Advanced Display Core Processor, ADCP II-C
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Secondary Distribution	Total Obligation Authority	1.859	6.475	56.791	0.000	56.791	89.600	61.756	72.364	33.797

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01500 / F-15	**Modification Number / Title:** 1205 / :Advanced Display Core Processor, ADCP II-C
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: F-15C, F-15D	**Modification Type:** Reliability & Maintainability	**Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: ADCP 2												
A Kits												
Recurring												
ADCP 2:INSTALL KITS Group A (Active)	0 / 0.000	1 / 0.051	5 / 0.264	29 / 1.566	- / -	29 / 1.566	28 / 1.596	12 / 0.672	14 / 0.812	0 / 0.000	- / -	89 / 4.961
ADCP 2:INSTALL KITS Group A (Guard)	- / -	- / -	- / -	25 / 1.361	- / -	25 / 1.361	26 / 1.472	28 / 1.568	28 / 1.670	0 / 0.000	- / -	107 / 6.071
Subtotal: Recurring	*- / 0.000*	*- / 0.051*	*- / 0.264*	*- / 2.927*	*- / -*	*- / 2.927*	*- / 3.068*	*- / 2.240*	*- / 2.482*	*- / 0.000*	*- / -*	*- / 11.032*
B Kits												
Recurring												
ADCP 2:EQUIPMENT Group B (Active)	0 / 0.000	1 / 0.815	5 / 4.257	29 / 23.664	- / -	29 / 23.664	28 / 23.492	12 / 10.152	14 / 12.124	- / 2.016	- / -	89 / 76.520
ADCP 2:EQUIPMENT Group B (Guard)	- / -	- / -	- / -	25 / 20.382	- / -	25 / 20.382	26 / 21.812	28 / 23.694	28 / 24.235	0 / 2.015	- / -	107 / 92.138
Subtotal: Recurring	*- / 0.000*	*- / 0.815*	*- / 4.257*	*- / 44.046*	*- / -*	*- / 44.046*	*- / 45.304*	*- / 33.846*	*- / 36.359*	*- / 4.031*	*- / -*	*- / 168.658*
Subtotal: ADCP 2	*- / 0.000*	*- / 0.866*	*- / 4.521*	*- / 46.973*	*- / -*	*- / 46.973*	*- / 48.372*	*- / 36.086*	*- / 38.841*	*- / 4.031*	*- / -*	*- / 179.690*
Subtotal: Procurement, All Modification Items	*- / 0.000*	*- / 0.866*	*- / 4.521*	*- / 46.973*	*- / -*	*- / 46.973*	*- / 48.372*	*- / 36.086*	*- / 38.841*	*- / 4.031*	*- / -*	*- / 179.690*
Support *(All Modification Items)*												
GROUP A: TOTAL NONRECURRING	- / 0.000	- / 0.000	- / -	- / 0.000	- / -	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / 0.000
GROUP B: TOTAL NONRECURRING	- / 0.000	- / 0.000	- / -	- / 3.493	- / -	- / 3.493	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / 3.493
Change Orders	- / 0.000	- / 0.910	- / 0.000	- / 0.000	- / -	- / 0.000	- / 30.499	- / 12.427	- / 19.507	- / 20.766	- / -	- / 84.109
Data	- / 0.000	- / 0.007	- / 1.058	- / 1.468	- / -	- / 1.468	- / 1.520	- / 1.433	- / 1.500	- / 1.178	- / -	- / 8.164
Type 1 Training	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 0.226	- / 0.135	- / 0.000	- / 0.000	- / -	- / 0.361
SUPPORT-EQUIP	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / 0.000
ICS-Labor	- / 0.000	- / -	- / 0.116	- / 0.171	- / -	- / 0.171	- / 0.832	- / 1.876	- / 2.796	- / 3.570	- / -	- / 9.361
PMA - Other Gov't Costs	- / 0.000	- / 0.067	- / 0.732	- / 4.044	- / -	- / 4.044	- / 4.283	- / 3.184	- / 3.758	- / 1.582	- / -	- / 17.650
OTHER GOVT	- / 0.000	- / 0.009	- / 0.048	- / 0.532	- / -	- / 0.532	- / 0.561	- / 0.414	- / 0.462	- / 0.000	- / -	- / 2.026
Subtotal: Support	*- / 0.000*	*- / 0.993*	*- / 1.954*	*- / 9.708*	*- / -*	*- / 9.708*	*- / 37.921*	*- / 19.469*	*- / 28.023*	*- / 27.096*	*- / -*	*- / 125.164*
Installation												
Modification Item 1 of 1: ADCP 2	- / -	- / -	0 / 0.000	1 / 0.110	- / -	1 / 0.110	31 / 3.307	54 / 6.201	50 / 5.500	60 / 2.670	- / -	196 / 17.788
Subtotal: Installation	*- / -*	*- / -*	*0 / 0.000*	*1 / 0.110*	*- / -*	*1 / 0.110*	*31 / 3.307*	*54 / 6.201*	*50 / 5.500*	*60 / 2.670*	*- / -*	*196 / 17.788*
Total												
Total Cost (Procurement + Support + Installation)	**0.000**	**1.859**	**6.475**	**56.791**	**0.000**	**56.791**	**89.600**	**61.756**	**72.364**	**33.797**	**-**	**322.642**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01500 / F-15	**Modification Number / Title:** 1205 / :Advanced Display Core Processor, ADCP II-C

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 1: ADCP 2

Manufacturer Information

Manufacturer Name: TBD

Manufacturer Location: TBD

Administrative Leadtime *(in Months)*: 3

Production Leadtime *(in Months)*: 15

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Jun 2017	Jan 2018	Jan 2019	Jan 2020	Jan 2021	Jan 2022	
Delivery Dates	Sep 2018	Apr 2019	Apr 2020	Apr 2021	Apr 2022	Apr 2023	

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	0 / 0.000	1 / 0.110	- / -	1 / 0.110	- / -	- / -	- / -	- / -	- / -	1 / 0.110
FY 2018	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	5 / 0.540	- / -	- / -	- / -	- / -	5 / 0.540
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	26 / 2.767	28 / 2.735	- / -	- / -	- / -	54 / 5.502
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	26 / 3.466	28 / 3.401	- / -	- / -	54 / 6.867
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	22 / 2.099	18 / 1.026	- / -	40 / 3.125
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	42 / 1.644	- / -	42 / 1.644
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	0 / 0.000	1 / 0.110	- / -	1 / 0.110	31 / 3.307	54 / 6.201	50 / 5.500	60 / 2.670	- / -	196 / 17.788

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	1	0	0	0	2	3	13	13	13	15	13	13	14	14	11	11	15	15	15	15	0	196
Out	0	-	-	-	-	-	-	-	-	1	0	0	0	2	3	13	13	13	15	13	13	14	14	11	11	15	15	15	15	0	196

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01500 / F-15	**Modification Number / Title:** 1206 / F-15C Infrared Search and Track (IRST)
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	0.000	55.133	61.889	0.000	61.889	34.533	121.077	35.615	20.918	92.711	421.876
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	55.133	61.889	0.000	61.889	34.533	121.077	35.615	20.918	92.711	421.876
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**55.133**	**61.889**	**0.000**	**61.889**	**34.533**	**121.077**	**35.615**	**20.918**	**92.711**	**421.876**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

"CDRUSPACOM has designated F-15C Infrared Search and Track (IRST) a priority program / critical investment for PBR 19"

The Infrared Search and Track (IRST) system will provide the F-15C/Ds with the capability to detect and track objects by infrared radiation. The pod complements other on board sensors by scanning a large volume of air space and fills gaps left by other sensors. This capability complements the radar to enhance survivability and lethality against air-to-air threats, provides a passive infrared sensor system that searches for and detects infrared energy, and provides the aircraft mission computer track file data on infrared targets. The Air Force will procure 100 IRST pods for use in a rotatable pool for 235 Active and Guard F-15C/D aircraft.

Funding may be used to resolve Diminishing Manufacturing Sources/Material Shortages (DMSMS) and/or obsolescence issues. DMSMS activities may include, but are not limited to, bridge buys, life of type buys, buys to protect production schedule, and minor engineering efforts for redesign.

Requirement: IRST CDD July 2012

DMSMS costs are included in Group B NRE; SE/PM costs are include in the Group B recurring.

This program has associated Research Development Test and Evaluation (RDT&E) funding in PE 0207134F.

Milestone/Development Status

Development started in FY 2015.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	55.133	61.889	0.000	61.889	34.533	121.077	35.615	20.918
Total:	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01500 / F-15	**Modification Number / Title:** 1206 / F-15C Infrared Search and Track (IRST)
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Secondary Distribution	Total Obligation Authority	0.000	55.133	61.889	0.000	61.889	34.533	121.077	35.615	20.918

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01500 / F-15	**Modification Number / Title:** 1206 / F-15C Infrared Search and Track (IRST)
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: F-15C, F-15D	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0207130F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: IRST Pod												
B Kits												
Recurring												
IRST Pod:EQUIPMENT Group B (Active)	- / -	- / -	16 / 47.001	21 / 51.487	- / -	21 / 51.487	7 / 23.522	30 / 78.873	0 / 16.626	0 / 6.315	26 / 88.155	100 / 311.979
Subtotal: Recurring	*- / -*	*- / -*	*- / 47.001*	*- / 51.487*	*- / -*	*- / 51.487*	*- / 23.522*	*- / 78.873*	*- / 16.626*	*- / 6.315*	*- / 88.155*	*- / 311.979*
Subtotal: IRST Pod	*- / -*	*- / -*	*- / 47.001*	*- / 51.487*	*- / -*	*- / 51.487*	*- / 23.522*	*- / 78.873*	*- / 16.626*	*- / 6.315*	*- / 88.155*	*- / 311.979*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / 47.001*	*- / 51.487*	*- / -*	*- / 51.487*	*- / 23.522*	*- / 78.873*	*- / 16.626*	*- / 6.315*	*- / 88.155*	*- / 311.979*
Support *(All Modification Items)*												
GROUP A: TOTAL NONRECURRING	- / -	- / -	- / 0.000	- / 0.000	- / -	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / 0.000
Change Orders	- / -	- / -	- / 3.826	- / 3.750	- / 0.000	- / 3.750	- / 2.503	- / 10.440	- / 2.803	- / 1.169	- / 4.556	- / 29.047
OTHER GOVT	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 15.264	- / 0.000	- / -	- / -	- / 15.264
Data	- / -	- / -	- / 1.844	- / 2.095	- / 0.000	- / 2.095	- / 0.274	- / 1.242	- / 0.070	- / 0.052	- / -	- / 5.577
SIM/TRAINER	- / -	- / -	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / 0.000
SUPPORT-EQUIP	- / -	- / -	- / 2.462	- / 4.557	- / 0.000	- / 4.557	- / 8.234	- / 15.258	- / 16.116	- / 13.382	- / -	- / 60.009
Subtotal: Support	*- / -*	*- / -*	*- / 8.132*	*- / 10.402*	*- / 0.000*	*- / 10.402*	*- / 11.011*	*- / 42.204*	*- / 18.989*	*- / 14.603*	*- / 4.556*	*- / 109.897*
Installation												
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*
Total												
Total Cost (Procurement + Support + Installation)	**-**	**0.000**	**55.133**	**61.889**	**0.000**	**61.889**	**34.533**	**121.077**	**35.615**	**20.918**	**92.711**	**421.876**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01500 / F-15	**Modification Number / Title:** 1206 / F-15C Infrared Search and Track (IRST)

ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**

Modification Item 1 of 1: IRST Pod

Manufacturer Information

Manufacturer Name: Lockheed Martin	Manufacturer Location: Orlando, Florida
Administrative Leadtime *(in Months)*: 3	Production Leadtime *(in Months)*: 18

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Aug 2018	Aug 2019	Aug 2020	Aug 2021		
Delivery Dates		Feb 2020	Feb 2021	Feb 2022	Feb 2023		

Installation Information

Method of Implementation (Organic): Org/Intermediate	**Installation Quantity:** 100

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01500 / F-15	**Modification Number / Title:** 6158 / F-15C/D APG-63(V)3 radar upgrade
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	1,359.205	0.000	16.723	90.524	0.000	90.524	23.681	40.540	42.909	3.769	0.000	1,577.351
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,359.205	0.000	16.723	90.524	0.000	90.524	23.681	40.540	42.909	3.769	0.000	1,577.351
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,359.205**	**0.000**	**16.723**	**90.524**	**0.000**	**90.524**	**23.681**	**40.540**	**42.909**	**3.769**	**0.000**	**1,577.351**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	7.626	-	-	-	-	-	-	-	-	-	7.626
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The APG-63(V)3 Active Electronically Scanned Array (AESA) radar upgrade includes F-15C/D aircraft equipped with all variants of the APG-63 radar. The (V)3 AESA upgrade significantly improves Reliability, Maintainability & Supportability (RM&S), and substantially improves operational effectiveness and combat lethality of the existing APG-63 equipped aircraft. Other avionics which support radar functionality may also be upgraded.

Upgrade kits funded by the Air Force reflect the separate cost to install the kit in the year of installation. The installation cost for kits funded with congressional adds or OCO funding is included in the Group A/B kit cost in the procurement year.

Requirement: CDD 21 Apr 2005

Funding may be used to resolve Diminishing Manufacturing Sources/Material Shortages (DMSMS) and/or obsolescence issues. DMSMS activities may include, but are not limited to, bridge buys, life of type buys, buys to protect production schedule, and minor engineering efforts for redesign. DMSMS costs are included in Group B NRE; SE/PM costs are include in the Group B recurring.

To account for Automatic Transformer Rectifier Unit (ATRU) kits that were not installed on the first 136 APG-63(V)3 radar upgrades, $10.169M of funding has moved to MOD number 8816, APG-63(V)3 Common Config.

Milestone/Development Status

Development is complete.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.000	16.723	55.454	-	55.454	3.941	20.350	36.809	-
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	35.070	-	35.070	19.740	20.190	6.100	3.769

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01500 / F-15	**Modification Number / Title:** 6158 / F-15C/D APG-63(V)3 radar upgrade
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.000	16.723	90.524	0.000	90.524	23.681	40.540	42.909	3.769

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01500 / F-15	**Modification Number / Title:** 6158 / F-15C/D APG-63(V)3 radar upgrade
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: F-15C, F-15D	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0207134F, 0207130F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0207130F	- / 65.272	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 65.272
Procurement												
Modification Item 1 of 1: (V)3												
A Kits												
Recurring												
(V)3:INSTALL KITS Group A (Active)	84 / 64.171	- / -	- / -	6 / 6.060	- / -	6 / 6.060	- / -	- / -	- / -	- / -	- / -	90 / 70.231
(V)3:INSTALL KITS Group A (Guard)	112 / 72.436	- / -	- / -	7 / 7.070	- / -	7 / 7.070	2 / 2.040	3 / 3.090	- / -	- / -	- / -	124 / 84.636
Subtotal: Recurring	*- / 136.607*	*- / -*	*- / -*	*- / 13.130*	*- / -*	*- / 13.130*	*- / 2.040*	*- / 3.090*	*- / -*	*- / -*	*- / -*	*- / 154.867*
B Kits												
Recurring												
(V)3:EQUIPMENT Group B (Active)	84 / 432.535	- / -	- / -	6 / 24.000	- / -	6 / 24.000	- / -	- / -	- / -	- / -	- / -	90 / 456.535
(V)3:EQUIPMENT Group B (Guard)	112 / 513.338	- / -	- / -	7 / 28.000	- / -	7 / 28.000	2 / 8.100	3 / 12.300	- / -	- / -	- / -	124 / 561.738
Subtotal: Recurring	*- / 945.873*	*- / -*	*- / -*	*- / 52.000*	*- / -*	*- / 52.000*	*- / 8.100*	*- / 12.300*	*- / -*	*- / -*	*- / -*	*- / 1,018.273*
Subtotal: (V)3	*- / 1,082.480*	*- / -*	*- / -*	*- / 65.130*	*- / -*	*- / 65.130*	*- / 10.140*	*- / 15.390*	*- / -*	*- / -*	*- / -*	*- / 1,173.140*
Subtotal: Procurement, All Modification Items	*- / 1,082.480*	*- / -*	*- / -*	*- / 65.130*	*- / -*	*- / 65.130*	*- / 10.140*	*- / 15.390*	*- / -*	*- / -*	*- / -*	*- / 1,173.140*
Support *(All Modification Items)*												
GROUP A: TOTAL NONRECURRING	- / 3.215	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.215
GROUP B: TOTAL NONRECURRING	- / 81.500	- / -	- / -	- / 4.000	- / -	- / 4.000	- / -	- / 3.500	- / -	- / -	- / -	- / 89.000
Change Orders	- / 58.206	- / 0.000	- / 5.386	- / 2.073	- / -	- / 2.073	- / 0.141	- / 6.250	- / 26.109	- / -	- / -	- / 98.165
Data	- / 5.655	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.655
SUPPORT-EQUIP	- / 1.353	- / 0.000	- / 5.000	- / 0.971	- / -	- / 0.971	- / -	- / -	- / -	- / -	- / -	- / 7.324
ICS-Labor	- / 15.203	- / -	- / -	- / 0.500	- / -	- / 0.500	- / 0.900	- / 2.500	- / 2.500	- / -	- / -	- / 21.603
PMA - Other Gov't Costs	- / 5.917	- / 0.000	- / 0.500	- / -	- / -	- / -	- / -	- / 2.000	- / 2.000	- / -	- / -	- / 10.417
OTHER GOVT	- / 9.169	- / 0.000	- / 0.837	- / 2.250	- / -	- / 2.250	- / 0.500	- / 2.500	- / 2.500	- / -	- / -	- / 17.756
GFP	- / 1.457	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.457
Mod of Spares	7 / 47.618	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 47.618
Type 1 Training	- / 0.200	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.200
Subtotal: Support	*7 / 229.493*	*- / 0.000*	*- / 11.723*	*- / 9.794*	*- / -*	*- / 9.794*	*- / 1.541*	*- / 16.750*	*- / 33.109*	*- / -*	*- / -*	*7 / 302.410*
Installation												
Modification Item 1 of 1: (V)3	165 / 47.232	- / -	10 / 5.000	12 / 15.600	- / -	12 / 15.600	9 / 12.000	7 / 8.400	8 / 9.800	3 / 3.769	- / -	214 / 101.801

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01500 / F-15	**Modification Number / Title:** 6158 / F-15C/D APG-63(V)3 radar upgrade
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: F-15C, F-15D	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0207134F, 0207130F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Subtotal: Installation	*165 / 47.232*	*- / -*	*10 / 5.000*	*12 / 15.600*	*- / -*	*12 / 15.600*	*9 / 12.000*	*7 / 8.400*	*8 / 9.800*	*3 / 3.769*	*- / -*	*214 / 101.801*
Total												
Total Cost (Procurement + Support + Installation)	**1,359.205**	**0.000**	**16.723**	**90.524**	**0.000**	**90.524**	**23.681**	**40.540**	**42.909**	**3.769**	**0.000**	**1,577.351**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01500 / F-15	**Modification Number / Title:** 6158 / F-15C/D APG-63(V)3 radar upgrade

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 1: (V)3

Manufacturer Information

Manufacturer Name: Raytheon

Manufacturer Location: El Segundo CA/Forest MS

Administrative Leadtime *(in Months)*: 6

Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates			Jun 2019	Apr 2020	Apr 2021		
Delivery Dates			Jun 2020	Apr 2021	Apr 2022		

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	165 / 47.232	- / -	10 / 5.000	12 / 15.600	- / -	12 / 15.600	9 / 12.000	- / -	- / -	- / -	- / -	196 / 79.832
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 8.400	6 / 7.400	- / -	- / -	13 / 15.800
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 2.400	- / -	- / -	2 / 2.400
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 3.769	- / -	3 / 3.769
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	165 / 47.232	- / -	10 / 5.000	12 / 15.600	- / -	12 / 15.600	9 / 12.000	7 / 8.400	8 / 9.800	3 / 3.769	- / -	214 / 101.801

Installation Schedule

		FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023					
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	165	0	0	0	0	3	2	3	2	3	3	3	3	3	3	3	-	1	2	2	2	2	2	2	2	2	1	-	-	0	214
Out	114	7	3	4	3	4	3	4	3	4	7	7	7	7	5	5	5	4	1	2	2	2	2	2	2	2	2	1	-	0	214

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01500 / F-15	**Modification Number / Title:** 8754 / F-15C/D IFF Mode 5
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	0.000	0.000	9.540	0.000	9.540	28.545	0.548	0.000	0.000	-	38.633
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	0.000	9.540	0.000	9.540	28.545	0.548	0.000	0.000	-	38.633
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**0.000**	**9.540**	**0.000**	**9.540**	**28.545**	**0.548**	**0.000**	**0.000**	**-**	**38.633**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This program, P-3A Mod 8754, F-15C/D IFF Mode 5, is a new start.
Mode 5 is a secure Air-to-Air Interrogator/ Identification Friend-or-Foe (AAI/IFF) system for identifying friendly aircraft. Employing a radio waveform different from secure Mode 4, Mode 5 provides vastly improved performance with a robust encryption scheme. The Mode 5 modification effort is for the F-15E and F-15C/D aircraft.
This effort also includes 1) ICS started under MN 8745 and 2)Retrofit/installation of AAI/IFF kits on the F-15C/D.

Funding may be used to resolve Diminishing Manufacturing Sources/Material Shortages (DMSMS) and/or obsolescence issues. DMSMS activities may include, but are not limited to, bridge buys, life of type buys, buys to protect production schedule, and minor engineering efforts for redesign.

DMSMS costs are included in Group B NRE; SE/PM costs are included in the Group B recurring.

Milestone/Development Status

Development Complete

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	9.540	-	9.540	12.995	0.548	-	-
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	-	-	-	15.550	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**0.000**	**0.000**	**9.540**	**0.000**	**9.540**	**28.545**	**0.548**	**0.000**	**0.000**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01500 / F-15	**Modification Number / Title:** 8754 / F-15C/D IFF Mode 5
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: F-15C, F-15D	**Modification Type:** Reliability & Maintainability	**Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Mode 5												
B Kits												
Recurring												
Mode 5:EQUIPMENT Group B (Active)	- / -	- / -	- / -	28 / 2.900	- / -	28 / 2.900	70 / 7.950	- / -	- / -	- / -	- / -	98 / 10.850
Mode 5:EQUIPMENT Group B (Guard)	- / -	- / -	- / -	- / -	- / -	- / -	137 / 15.550	- / -	- / -	- / -	- / -	137 / 15.550
Subtotal: Recurring	- / -	- / -	- / -	- / 2.900	- / -	- / 2.900	- / 23.500	- / -	- / -	- / -	- / -	- / 26.400
Subtotal: Mode 5	- / -	- / -	- / -	- / 2.900	- / -	- / 2.900	- / 23.500	- / -	- / -	- / -	- / -	- / 26.400
Subtotal: Procurement, All Modification Items	- / -	- / -	- / -	- / 2.900	- / -	- / 2.900	- / 23.500	- / -	- / -	- / -	- / -	- / 26.400
Support *(All Modification Items)*												
GROUP B: TOTAL NONRECURRING	- / -	- / -	- / -	- / 0.200	- / -	- / 0.200	- / 1.200	- / 0.100	- / -	- / -	- / -	- / 1.500
Change Orders	- / -	- / -	- / -	- / 2.640	- / -	- / 2.640	- / 1.045	- / 0.248	- / -	- / -	- / -	- / 3.933
GFP	- / -	- / -	- / -	- / 1.500	- / -	- / 1.500	- / 0.500	- / 0.000	- / -	- / -	- / -	- / 2.000
ICS-Labor	- / -	- / -	- / -	- / 2.300	- / -	- / 2.300	- / 2.300	- / 0.200	- / -	- / -	- / -	- / 4.800
Subtotal: Support	- / -	- / -	- / -	- / 6.640	- / -	- / 6.640	- / 5.045	- / 0.548	- / -	- / -	- / -	- / 12.233
Installation												
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total												
Total Cost (Procurement + Support + Installation)	**-**	**0.000**	**0.000**	**9.540**	**0.000**	**9.540**	**28.545**	**0.548**	**0.000**	**0.000**	**-**	**38.633**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01500 / F-15	**Modification Number / Title:** 8754 / F-15C/D IFF Mode 5

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 1 of 1: Mode 5

Manufacturer Information

Manufacturer Name: Raytheon

Manufacturer Location: Largo, FL

Administrative Leadtime *(in Months)*: 1

Production Leadtime *(in Months)*: 3

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates			Nov 2018	Aug 2019			
Delivery Dates			Feb 2019	Nov 2019			

Installation Information

Method of Implementation (Organic): Org/Intermediate

Installation Quantity: 235

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01500 / F-15	**Modification Number / Title:** 8755 / F-15E IFF MODE 5
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	28.035	0.000	7.976	15.725	0.000	15.725	4.470	0.520	0.000	0.000	0.000	56.726
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	28.035	0.000	7.976	15.725	0.000	15.725	4.470	0.520	0.000	0.000	0.000	56.726
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**28.035**	**0.000**	**7.976**	**15.725**	**0.000**	**15.725**	**4.470**	**0.520**	**0.000**	**0.000**	**0.000**	**56.726**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Mode 5 is a secure Air-to-Air Interrogator/ Identification Friend-or-Foe (AAI/IFF) system for identifying friendly aircraft. Employing a radio waveform different from secure Mode 4, Mode 5 provides vastly improved performance with a robust encryption scheme. The Mode 5 modification effort is for the F-15E and F-15C/D aircraft. This effort also includes 1)ICS started under MN 8745 and 2) Procurement of new and Retrofit/ installation of AAI/IFF kits on the F-15E.

Funding may be used to resolve Diminishing Manufacturing Sources/Material Shortages (DMSMS) and/or obsolescence issues. DMSMS activities may include, but are not limited to, bridge buys, life of type buys, buys to protect production schedule, and minor engineering efforts for redesign.

DMSMS costs are included in Group B NRE; and SE/PM costs are included in the Group B recurring.

Milestone/Development Status

Development Effort Complete

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	7.976	15.725	-	15.725	4.470	0.520	0.000	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**0.000**	**7.976**	**15.725**	**0.000**	**15.725**	**4.470**	**0.520**	**0.000**	**0.000**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01500 / F-15	**Modification Number / Title:** 8755 / F-15E IFF MODE 5
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: F-15C, F-15D, F-15E	**Modification Type:** Reliability & Maintainability	**Related RDT&E PEs:** 0207134F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Group B Kit												
B Kits												
Recurring												
Group B Kit:EQUIPMENT Group B (Active)	- / 13.765	- / -	21 / 5.321	166 / 9.217	- / -	166 / 9.217	30 / 3.370	- / -	0 / 0.000	- / -	- / -	217 / 31.673
Subtotal: Recurring	*- / 13.765*	*- / -*	*- / 5.321*	*- / 9.217*	*- / -*	*- / 9.217*	*- / 3.370*	*- / -*	*- / 0.000*	*- / -*	*- / -*	*- / 31.673*
Subtotal: Group B Kit	*- / 13.765*	*- / -*	*- / 5.321*	*- / 9.217*	*- / -*	*- / 9.217*	*- / 3.370*	*- / -*	*- / 0.000*	*- / -*	*- / -*	*- / 31.673*
Subtotal: Procurement, All Modification Items	*- / 13.765*	*- / -*	*- / 5.321*	*- / 9.217*	*- / -*	*- / 9.217*	*- / 3.370*	*- / -*	*- / 0.000*	*- / -*	*- / -*	*- / 31.673*
Support *(All Modification Items)*												
GROUP B: TOTAL NONRECURRING	- / 7.014	- / -	- / -	- / 0.000	- / -	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 7.014
Change Orders	- / 0.000	- / -	- / 2.255	- / 6.108	- / -	- / 6.108	- / 0.100	- / 0.100	- / -	- / -	- / -	- / 8.563
SUPPORT-EQUIP	- / -	- / -	- / 0.200	- / 0.200	- / -	- / 0.200	- / 1.000	- / 0.420	- / -	- / -	- / -	- / 1.820
ICS-Labor	- / 6.446	- / -	- / 0.200	- / 0.200	- / -	- / 0.200	- / -	- / -	- / -	- / -	- / -	- / 6.846
OTHER GOVT	- / 0.810	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.810
Subtotal: Support	*- / 14.270*	*- / -*	*- / 2.655*	*- / 6.508*	*- / -*	*- / 6.508*	*- / 1.100*	*- / 0.520*	*- / -*	*- / -*	*- / -*	*- / 25.053*
Installation												
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*
Total												
Total Cost (Procurement + Support + Installation)	**28.035**	**0.000**	**7.976**	**15.725**	**0.000**	**15.725**	**4.470**	**0.520**	**0.000**	**0.000**	**0.000**	**56.726**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01500 / F-15	**Modification Number / Title:** 8755 / F-15E IFF MODE 5

ID Code (A=Service Ready, B=Not Service Ready) : B | **MDAP/MAIS Code:**

Modification Item 1 of 1: Group B Kit

Manufacturer Information

Manufacturer Name: Raytheon | Manufacturer Location: Largo, FL

Administrative Leadtime *(in Months)*: 1 | Production Leadtime *(in Months)*: 3

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Nov 2018	Nov 2019	Nov 2020			
Delivery Dates		Feb 2019	Feb 2020	Feb 2021			

Installation Information

Method of Implementation (Organic): Org/Intermediate | **Installation Quantity:** 217

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01500 / F-15	**Modification Number / Title:** 8799 / F-15C MIDS JTRS
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	0.000	7.430	21.360	0.000	21.360	26.280	46.118	41.832	6.648	37.360	187.028
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	0.000	7.430	21.360	0.000	21.360	26.280	46.118	41.832	6.648	37.360	187.028
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**0.000**	**7.430**	**21.360**	**0.000**	**21.360**	**26.280**	**46.118**	**41.832**	**6.648**	**37.360**	**187.028**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This upgrade integrates and installs a new Link 16 system on the F-15C that complies with an NSA mandate on cryptographic modernization and an FAA mandate on frequency remapping. The FAA mandate requires all fielded Link-16 terminals incorporate the frequency re-mapping capability by 2025.

In addition to meeting the two mandates, the system will significantly increase data link capacity and improves long range performance and the ability to operate in a jamming environment. It will also reduce sustainment costs due to its commonality with other DoD assets.

Funding may be used to resolve Diminishing Manufacturing Sources/Material Shortages (DMSMS) and/or obsolescence issues. DMSMS activities may include, but are not limited to, bridge buys, life of type buys, buys to protect production schedule, and minor engineering efforts for redesign.

DMSMS costs are included in Group B NRE; SE/PM costs are included in the Group B recurring; and Depot Costs are included in the Support Equipment.

Milestone/Development Status

Integration started in FY 2016. Integrating Navy MIDS-JTRS LRUs into F15 Suite 9 OFP

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	7.430	8.700	-	8.700	13.450	30.537	18.740	4.333
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	12.660	-	12.660	12.830	15.581	23.092	2.315
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**0.000**	**7.430**	**21.360**	**0.000**	**21.360**	**26.280**	**46.118**	**41.832**	**6.648**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01500 / F-15	**Modification Number / Title:** 8799 / F-15C MIDS JTRS
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: F-15C	**Modification Type:** Capability Improvement	**Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: MIDS JTRS C Model												
A Kits												
Recurring												
MIDS JTRS C Model:INSTALL KITS Group A (Active)	- / -	- / -	13 / 0.390	11 / 0.340	- / -	11 / 0.340	3 / 0.100	22 / 1.184	40 / 1.485	- / -	- / -	89 / 3.499
MIDS JTRS C Model:INSTALL KITS Group A (Guard)	- / -	- / -	- / -	31 / 0.960	- / -	31 / 0.960	31 / 0.980	12 / 0.646	33 / 1.225	- / -	- / -	107 / 3.811
Subtotal: Recurring	*- / -*	*- / -*	*- / 0.390*	*- / 1.300*	*- / -*	*- / 1.300*	*- / 1.080*	*- / 1.830*	*- / 2.710*	*- / -*	*- / -*	*- / 7.310*
B Kits												
Recurring												
MIDS JTRS C Model:EQUIPMENT Group B (Active)	- / -	- / -	13 / 4.900	11 / 4.150	- / -	11 / 4.150	3 / 1.150	22 / 9.175	40 / 14.215	- / -	- / -	89 / 33.590
MIDS JTRS C Model:EQUIPMENT Group B (Guard)	- / -	- / -	- / -	31 / 11.700	- / -	31 / 11.700	31 / 11.850	12 / 5.005	33 / 11.727	- / -	- / -	107 / 40.282
Subtotal: Recurring	*- / -*	*- / -*	*- / 4.900*	*- / 15.850*	*- / -*	*- / 15.850*	*- / 13.000*	*- / 14.180*	*- / 25.942*	*- / -*	*- / -*	*- / 73.872*
Subtotal: MIDS JTRS C Model	*- / -*	*- / -*	*- / 5.290*	*- / 17.150*	*- / -*	*- / 17.150*	*- / 14.080*	*- / 16.010*	*- / 28.652*	*- / -*	*- / -*	*- / 81.182*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / 5.290*	*- / 17.150*	*- / -*	*- / 17.150*	*- / 14.080*	*- / 16.010*	*- / 28.652*	*- / -*	*- / -*	*- / 81.182*
Support *(All Modification Items)*												
GROUP B: TOTAL NONRECURRING	- / -	- / -	- / 1.440	- / 3.930	- / -	- / 3.930	- / 4.110	- / 5.300	- / 2.000	- / -	- / -	- / 16.780
Change Orders	- / -	- / -	- / 0.630	- / 0.060	- / -	- / 0.060	- / 2.350	- / 11.018	- / 0.000	- / 0.000	- / 10.440	- / 24.498
ICS-Labor	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.030	- / 0.060	- / 0.090	- / 0.250	- / 0.430
SUPPORT-EQUIP	- / -	- / -	- / 0.070	- / 0.220	- / -	- / 0.220	- / 0.180	- / 0.300	- / 0.000	- / -	- / -	- / 0.770
Subtotal: Support	*- / -*	*- / -*	*- / 2.140*	*- / 4.210*	*- / -*	*- / 4.210*	*- / 6.640*	*- / 16.648*	*- / 2.060*	*- / 0.090*	*- / 10.690*	*- / 42.478*
Installation												
Modification Item 1 of 1: MIDS JTRS C Model	- / -	- / -	- / -	- / -	- / -	- / -	13 / 5.560	42 / 13.460	34 / 11.120	34 / 6.558	73 / 26.670	196 / 63.368
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*13 / 5.560*	*42 / 13.460*	*34 / 11.120*	*34 / 6.558*	*73 / 26.670*	*196 / 63.368*
Total												
Total Cost (Procurement + Support + Installation)	**0.000**	**0.000**	**7.430**	**21.360**	**0.000**	**21.360**	**26.280**	**46.118**	**41.832**	**6.648**	**37.360**	**187.028**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01500 / F-15	**Modification Number / Title:** 8799 / F-15C MIDS JTRS
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 1: MIDS JTRS C Model

Manufacturer Information

Manufacturer Name: BAE Systems	Manufacturer Location: Wayne, NJ
Administrative Leadtime *(in Months)*: 12	Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Oct 2018	Oct 2019	Oct 2020	Oct 2021	Oct 2022	
Delivery Dates		Oct 2019	Oct 2020	Oct 2021	Oct 2022	Oct 2023	

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	13 / 5.560	- / -	- / -	- / -	- / -	13 / 5.560
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	42 / 13.460	- / -	- / -	- / -	42 / 13.460
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	34 / 11.120	- / -	- / -	34 / 11.120
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	34 / 6.558	- / -	34 / 6.558
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	73 / 26.670	73 / 26.670
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	13 / 5.560	42 / 13.460	34 / 11.120	34 / 6.558	73 / 26.670	196 / 63.368

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0	7	6	10	10	11	11	8	8	9	9	8	8	9	9	73	196
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0	7	6	10	10	11	11	8	8	9	9	8	8	9	9	73	196

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01500 / F-15	**Modification Number / Title:** 8800 / F-15E MIDS JTRS
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	0.000	13.823	19.040	0.000	19.040	27.844	36.018	40.259	19.962	15.800	172.746
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	0.000	13.823	19.040	0.000	19.040	27.844	36.018	40.259	19.962	15.800	172.746
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**0.000**	**13.823**	**19.040**	**0.000**	**19.040**	**27.844**	**36.018**	**40.259**	**19.962**	**15.800**	**172.746**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This upgrade integrates and installs a new Link 16 system on the F-15E that complies with an NSA mandate on cryptographic modernization and an FAA mandate on frequency remapping. The FAA mandate requires all fielded Link-16 terminals incorporate the frequency re-mapping capability by 2025.

In addition to meeting the two mandates, the system will significantly increase data link capacity and improve long range performance and the ability to operate in a jamming environment. It will also reduce sustainment costs due to its commonality with other DoD assets.

Funding may be used to resolve Diminishing Manufacturing Sources/Material Shortages (DMSMS) and/or obsolescence issues. DMSMS activities may include, but are not limited to, bridge buys, life of type buys, buys to protect production schedule, and minor engineering efforts for redesign.

DMSMS costs are included in Group B NRE; SE/PM costs are included in the Group B recurring; and Depot Costs are included in the Support Equipment.

Milestone/Development Status

MIDS JTRS will be integrated in OFP Suite 9

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	13.823	19.040	-	19.040	27.844	36.018	40.259	19.962
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**0.000**	**13.823**	**19.040**	**0.000**	**19.040**	**27.844**	**36.018**	**40.259**	**19.962**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01500 / F-15	**Modification Number / Title:** 8800 / F-15E MIDS JTRS
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: F-15E	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0207134F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0207134F	- / 12.796	- / 44.136	- / 12.010	- / 6.670	- / -	- / 6.670	- / 11.320	- / 16.140	- / 8.450	- / 8.602	- / -	- / 120.124
Procurement												
Modification Item 1 of 1: MIDS JTRS												
A Kits												
Recurring												
MIDS JTRS:INSTALL KITS Group A (Active)	- / -	- / -	26 / 0.790	36 / 1.120	- / -	36 / 1.120	50 / 1.590	61 / 1.990	45 / 1.510	- / -	- / -	218 / 7.000
Subtotal: Recurring	*- / -*	*- / -*	*- / 0.790*	*- / 1.120*	*- / -*	*- / 1.120*	*- / 1.590*	*- / 1.990*	*- / 1.510*	*- / -*	*- / -*	*- / 7.000*
B Kits												
Recurring												
MIDS JTRS:EQUIPMENT Group B (Active)	- / -	- / -	26 / 9.330	36 / 12.940	- / -	36 / 12.940	50 / 18.140	61 / 22.540	45 / 16.780	- / -	- / -	218 / 79.730
Subtotal: Recurring	*- / -*	*- / -*	*- / 9.330*	*- / 12.940*	*- / -*	*- / 12.940*	*- / 18.140*	*- / 22.540*	*- / 16.780*	*- / -*	*- / -*	*- / 79.730*
Subtotal: MIDS JTRS	*- / -*	*- / -*	*- / 10.120*	*- / 14.060*	*- / -*	*- / 14.060*	*- / 19.730*	*- / 24.530*	*- / 18.290*	*- / -*	*- / -*	*- / 86.730*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / 10.120*	*- / 14.060*	*- / -*	*- / 14.060*	*- / 19.730*	*- / 24.530*	*- / 18.290*	*- / -*	*- / -*	*- / 86.730*
Support *(All Modification Items)*												
GROUP B: TOTAL NONRECURRING	- / -	- / -	- / 2.470	- / 3.300	- / -	- / 3.300	- / 0.304	- / 1.388	- / 4.190	- / -	- / -	- / 11.652
Change Orders	- / -	- / -	- / 1.103	- / 1.500	- / -	- / 1.500	- / 0.000	- / 0.000	- / 3.679	- / 2.182	- / 1.480	- / 9.944
SUPPORT-EQUIP	- / -	- / -	- / 0.130	- / 0.180	- / -	- / 0.180	- / 0.000	- / 0.000	- / 0.250	- / -	- / -	- / 0.560
ICS-Labor	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.030	- / 0.060	- / 0.100	- / 0.510	- / 0.700
Subtotal: Support	*- / -*	*- / -*	*- / 3.703*	*- / 4.980*	*- / -*	*- / 4.980*	*- / 0.304*	*- / 1.418*	*- / 8.179*	*- / 2.282*	*- / 1.990*	*- / 22.856*
Installation												
Modification Item 1 of 1: MIDS JTRS	- / -	- / -	- / -	- / -	- / -	- / -	26 / 7.810	36 / 10.070	50 / 13.790	61 / 17.680	45 / 13.810	218 / 63.160
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*26 / 7.810*	*36 / 10.070*	*50 / 13.790*	*61 / 17.680*	*45 / 13.810*	*218 / 63.160*
Total												
Total Cost (Procurement + Support + Installation)	**0.000**	**0.000**	**13.823**	**19.040**	**0.000**	**19.040**	**27.844**	**36.018**	**40.259**	**19.962**	**15.800**	**172.746**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01500 / F-15	**Modification Number / Title:** 8800 / F-15E MIDS JTRS
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 1: MIDS JTRS

Manufacturer Information

Manufacturer Name: BAE Systems	Manufacturer Location: Wayne, NJ
Administrative Leadtime *(in Months)*: 12	Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Oct 2018	Oct 2019	Oct 2020	Oct 2021	Oct 2022	
Delivery Dates		Oct 2019	Oct 2020	Oct 2021	Oct 2022	Oct 2023	

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	26 / 7.810	- / -	- / -	- / -	- / -	26 / 7.810
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	36 / 10.070	- / -	- / -	- / -	36 / 10.070
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	50 / 13.790	- / -	- / -	50 / 13.790
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	61 / 17.680	- / -	61 / 17.680
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	45 / 13.810	45 / 13.810
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	26 / 7.810	36 / 10.070	50 / 13.790	61 / 17.680	45 / 13.810	218 / 63.160

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	-	-	8	8	10	9	9	9	9	12	12	13	13	15	15	15	16	45	218
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	8	8	10	9	9	9	9	12	12	13	13	15	15	15	16	45	218

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01500 / F-15	**Modification Number / Title:** 8801 / F-15 C/D SLEP Longerons
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	0.000	7.023	5.900	0.000	5.900	24.500	31.520	32.100	32.678	78.742	212.463
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	7.023	5.900	0.000	5.900	24.500	31.520	32.100	32.678	78.742	212.463
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**7.023**	**5.900**	**0.000**	**5.900**	**24.500**	**31.520**	**32.100**	**32.678**	**78.742**	**212.463**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The F-15C/D Service Life Extension Program (SLEP) for the Longeron addresses a potential safety of flight issue and is required to support the fleet required service life to 2045. The requirement is documented via AF 1067 15-199 dated 6 Jan 16. No additional development to the existing Longeron configuration is required. Data for replacement kits is resident within the F-15 program office. This is a Group B ONLY MOD.

Funds may be used to resolve emerging safety of flight and diminishing manufacturing sources issues, obsolescence issues, accommodate technology insertion and fulfill FAA or other mandates necessary to ensure continued aircrew safety and mission effectiveness. DMSMS activities may include, but are not limited to, bridge buys, life of type buys, buys to protect production schedule, and minor engineering efforts for redesign. DMSMS costs are included in Group B NRE; SE/PM costs are include in the Group B recurring; and Depot Costs are included in the Support Equipment.

Program procuring 237 Longeron Kits; 2 Kits will be destroyed during First Article Testing; 235 will be installed

Milestone/Development Status

This program replaces the components according to their original design. Therefore, no development effort or funding required.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	4.023	4.400	-	4.400	17.148	20.784	16.852	17.806
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	3.000	1.500	-	1.500	7.352	10.736	15.248	14.872
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**0.000**	**7.023**	**5.900**	**0.000**	**5.900**	**24.500**	**31.520**	**32.100**	**32.678**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01500 / F-15	**Modification Number / Title:** 8801 / F-15 C/D SLEP Longerons
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: F-15C, F-15D	**Modification Type:** Service Life Extension	**Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Longeron Configuration A												
B Kits												
Recurring												
Longeron Configuration A:EQUIPMENT Group B (Active)	- / -	- / -	4 / 1.200	6 / 1.800	- / -	6 / 1.800	9 / 2.700	17 / 5.100	17 / 5.100	17 / 5.100	28 / 8.400	98 / 29.400
Longeron Configuration A:EQUIPMENT Group B (Guard)	- / -	- / -	10 / 3.000	5 / 1.500	- / -	5 / 1.500	22 / 6.600	22 / 6.600	22 / 6.600	22 / 6.600	36 / 10.800	139 / 41.700
Subtotal: Recurring	*- / -*	*- / -*	*- / 4.200*	*- / 3.300*	*- / -*	*- / 3.300*	*- / 9.300*	*- / 11.700*	*- / 11.700*	*- / 11.700*	*- / 19.200*	*- / 71.100*
Subtotal: Longeron Configuration A	*- / -*	*- / -*	*- / 4.200*	*- / 3.300*	*- / -*	*- / 3.300*	*- / 9.300*	*- / 11.700*	*- / 11.700*	*- / 11.700*	*- / 19.200*	*- / 71.100*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / 4.200*	*- / 3.300*	*- / -*	*- / 3.300*	*- / 9.300*	*- / 11.700*	*- / 11.700*	*- / 11.700*	*- / 19.200*	*- / 71.100*
Support *(All Modification Items)*												
GROUP B: TOTAL NONRECURRING	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.200	- / -	- / -	- / -	- / -	- / 0.200
A&AS	- / -	- / -	- / 1.000	- / 0.928	- / -	- / 0.928	- / 3.000	- / 3.000	- / 3.000	- / 3.000	- / 6.000	- / 19.928
FAA CERTIFICATION	- / -	- / -	- / 1.300	- / 1.254	- / -	- / 1.254	- / -	- / -	- / -	- / -	- / -	- / 2.554
SUPPORT-EQUIP	- / -	- / -	- / 0.473	- / 0.000	- / -	- / 0.000	- / 1.300	- / -	- / -	- / -	- / -	- / 1.773
PMA - Other Gov't Costs	- / -	- / -	- / 0.050	- / -	- / -	- / -	- / 0.045	- / 0.050	- / 0.050	- / 0.050	- / 0.150	- / 0.395
Change Orders	- / -	- / -	- / -	- / -	- / -	- / -	- / 9.527	- / 9.626	- / 5.694	- / 3.264	- / -	- / 28.111
Subtotal: Support	*- / -*	*- / -*	*- / 2.823*	*- / 2.182*	*- / -*	*- / 2.182*	*- / 14.072*	*- / 12.676*	*- / 8.744*	*- / 6.314*	*- / 6.150*	*- / 52.961*
Installation												
Modification Item 1 of 1: Longeron Configuration A	- / -	- / -	- / -	1 / 0.418	- / -	1 / 0.418	3 / 1.128	19 / 7.144	31 / 11.656	39 / 14.664	142 / 53.392	235 / 88.402
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*1 / 0.418*	*- / -*	*1 / 0.418*	*3 / 1.128*	*19 / 7.144*	*31 / 11.656*	*39 / 14.664*	*142 / 53.392*	*235 / 88.402*
Total												
Total Cost (Procurement + Support + Installation)	**-**	**0.000**	**7.023**	**5.900**	**0.000**	**5.900**	**24.500**	**31.520**	**32.100**	**32.678**	**78.742**	**212.463**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01500 / F-15	**Modification Number / Title:** 8801 / F-15 C/D SLEP Longerons
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 1: Longeron Configuration A

Manufacturer Information

Manufacturer Name: TBD	Manufacturer Location: Robins AFB
Administrative Leadtime *(in Months)*: 0	Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Aug 2018	Jun 2019	Jun 2020	Jun 2021	Jun 2022	Jun 2023
Delivery Dates		Aug 2019	Jun 2020	Jun 2021	Jun 2022	Jun 2023	Jun 2024

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	1 / 0.418	- / -	1 / 0.418	3 / 1.128	10 / 3.760	- / -	- / -	- / -	14 / 5.306
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 3.384	2 / 0.752	- / -	- / -	11 / 4.136
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	29 / 10.904	2 / 0.752	- / -	31 / 11.656
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	37 / 13.912	2 / 0.752	39 / 14.664
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	39 / 14.664	39 / 14.664
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	39 / 14.664	39 / 14.664
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	62 / 23.312	62 / 23.312
Total	- / -	- / -	- / -	1 / 0.418	- / -	1 / 0.418	3 / 1.128	19 / 7.144	31 / 11.656	39 / 14.664	142 / 53.392	235 / 88.402

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	-	4	4	5	6	7	8	8	8	9	10	10	10	142	235
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	-	4	4	5	6	7	8	8	8	9	10	162	235

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01500 / F-15	**Modification Number / Title:** 8810 / F-15E APG-82(V)1 Common Config
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	0.000	1.190	19.007	0.000	19.007	12.625	24.012	4.967	5.056	-	66.857
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	0.000	1.190	19.007	0.000	19.007	12.625	24.012	4.967	5.056	-	66.857
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**0.000**	**1.190**	**19.007**	**0.000**	**19.007**	**12.625**	**24.012**	**4.967**	**5.056**	**-**	**66.857**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

APG-82(v)1 Common Config ensures common configuration of hardware across the entire F-15E fleet. GPP3 retrofit for the APG-82(v)1 radar replaces obsolete components on the F-15E aircraft to bring the Radar Modernization Program (RMP) equipped jets to a common configuration. GPP3 is a new general purpose processor needed to replace the obsolete GPP1 in the APG-82(v)1 radar. GPP3 retrofit also replaces the obsolete DDS2 waveform generator with the new DDS3. The Automatic Transformer Rectifier Unit(ATRU) retrofit provides a new Isolation Unit, current-sensing contactor, and restrictor to the RMP equipped jets in order to resolve a known Deficiency Report causing dual generator failures on the F-15E aircraft.

Procure and Install Automatic Transformer Rectifier Unit (ATRU) kits to correct the generator system architecture design deficiency for USAF F-15 E model's equipped with the APG-82(V)1 radar.
$9.460M of funding is sourced from APG-82(V)1 RMP, Mod number 1202.

Milestone/Development Status

Development is complete.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	1.190	19.007	-	19.007	12.625	24.012	4.967	5.056
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**0.000**	**1.190**	**19.007**	**0.000**	**19.007**	**12.625**	**24.012**	**4.967**	**5.056**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01500 / F-15	**Modification Number / Title:** 8810 / F-15E APG-82(V)1 Common Config
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: F-15E	**Modification Type:** Capability Improvement	**Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: GPP3												
A Kits												
Recurring												
GPP3:INSTALL KITS Group A (Active)	- / -	- / -	- / -	50 / 1.200	- / -	50 / 1.200	50 / 1.200	40 / 0.900	- / -	- / -	- / -	140 / 3.300
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / 1.200*	*- / -*	*- / 1.200*	*- / 1.200*	*- / 0.900*	*- / -*	*- / -*	*- / -*	*- / 3.300*
B Kits												
Recurring												
GPP3:EQUIPMENT Group B (Active)	- / -	- / -	- / -	50 / 11.000	- / -	50 / 11.000	50 / 11.000	40 / 8.250	- / -	- / -	- / -	140 / 30.250
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / 11.000*	*- / -*	*- / 11.000*	*- / 11.000*	*- / 8.250*	*- / -*	*- / -*	*- / -*	*- / 30.250*
Subtotal: GPP3	*- / -*	*- / -*	*- / -*	*- / 12.200*	*- / -*	*- / 12.200*	*- / 12.200*	*- / 9.150*	*- / -*	*- / -*	*- / -*	*- / 33.550*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / -*	*- / 12.200*	*- / -*	*- / 12.200*	*- / 12.200*	*- / 9.150*	*- / -*	*- / -*	*- / -*	*- / 33.550*
Support *(All Modification Items)*												
GROUP A: TOTAL NONRECURRING	- / -	- / -	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000
Change Orders	- / -	- / -	- / 1.190	- / 6.807	- / -	- / 6.807	- / 0.425	- / 14.862	- / 4.967	- / 5.056	- / -	- / 33.307
Subtotal: Support	*- / -*	*- / -*	*- / 1.190*	*- / 6.807*	*- / -*	*- / 6.807*	*- / 0.425*	*- / 14.862*	*- / 4.967*	*- / 5.056*	*- / -*	*- / 33.307*
Installation												
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*
Total												
Total Cost (Procurement + Support + Installation)	**0.000**	**0.000**	**1.190**	**19.007**	**0.000**	**19.007**	**12.625**	**24.012**	**4.967**	**5.056**	**-**	**66.857**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01500 / F-15	**Modification Number / Title:** 8810 / F-15E APG-82(V)1 Common Config

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 1: GPP3

Manufacturer Information

Manufacturer Name: Raytheon

Manufacturer Location: El Segundo CA/Forest MS

Administrative Leadtime *(in Months)*: 3

Production Leadtime *(in Months)*: 18

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates			Jan 2019	Jan 2020	Jan 2021		
Delivery Dates			Jul 2020	Jul 2021	Jul 2022		

Installation Information

Method of Implementation (Organic): Org/Intermediate

Installation Quantity: 0

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft	**P-1 Line Item Number / Title:** F01600 / F-16

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0207133F, 0207445F, 0809731F	Other Related Program Elements: 0207133F, 0207445F, 0207701F

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	116.330	274.331	203.864	324.312	0.000	324.312	312.860	765.483	607.657	616.590	1,081.962	4,303.389
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	116.330	274.331	203.864	324.312	0.000	324.312	312.860	765.483	607.657	616.590	1,081.962	4,303.389
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**116.330**	**274.331**	**203.864**	**324.312**	**0.000**	**324.312**	**312.860**	**765.483**	**607.657**	**616.590**	**1,081.962**	**4,303.389**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The F-16 is a multi-role fighter capable of employing a wide variety of nuclear and conventional weapons and missiles in both the air-to-surface and air-to-air mission areas. There are 939 aircraft in the F-16 fleet, consisting of 613 Post-Block (40/42/50/52) and 326 Pre-Block (25/30/32). The Post-Block aircraft have a service life of 8,000 EFH and the Pre-Block have a service life of 10,800 EFH. The average age of the fleet is 25.75 years. The specific modifications budgeted and programmed are below.

Funding for the Link 16 Crypto mod is budgeted in PE 0207445F.
Funding for AETC-MTD Trainers mod is budgeted in PE 0809731F.
Funding for all other F-16 mods in this exhibit is budgeted in PE 0207133F.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	105.762	164.969	267.351	-	267.351	263.371	656.511	569.856	577.129
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	168.569	38.895	56.005	-	56.005	46.449	108.972	37.801	39.461
AFR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	0.956	-	0.956	3.040	-	-	-
Total:	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft	**P-1 Line Item Number / Title:** F01600 / F-16	
ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0207133F, 0207445F, 0809731F	**Other Related Program Elements:** 0207133F, 0207445F, 0207701F
Line Item MDAP/MAIS Code: N/A		

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Secondary Distribution	Total Obligation Authority	274.331	203.864	324.312	-	324.312	312.860	765.483	607.657	616.590

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft	**P-1 Line Item Number / Title:** F01600 / F-16

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0207133F, 0207445F, 0809731F	Other Related Program Elements: 0207133F, 0207445F, 0207701F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	602148 / MMC and Display Generator Upgrade (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / -
P-40a***	633030 / Aggressors Update (Capability Improvement)				- / -	- / 6.925	- / 5.306	- / 1.154	- / -	- / 1.154
P-40a***	633041 / Anti Jam (Capability Improvement)				- / -	- / 5.000	- / -	- / -	- / -	- / -
P-40a***	633042 / Missile Warning Systems (Capability Improvement)				- / -	- / 12.000	- / -	- / -	- / -	- / -
P-40a***	661652 / Link 16 Crypto (Capability Improvement)				- / 3.200	- / 6.447	- / -	- / -	- / -	- / -
P-40a***	694050 / AESA Radars (Capability Improvement)				- / -	- / 216.496	- / 2.873	- / 0.899	- / -	- / 0.899
P-40a***	704050 / Digital Radar Warning Receiver (RWR) (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / -
P-40a***	8662 / AETC MTD UPGRADES-FIELD TRAINING DETACHMENTS (Capability Improvement)				- / 98.541	- / 6.996	- / 5.291	- / 5.335	- / -	- / 5.335
P-40a***	866250 / F-16 TRAINING SYSTEMS (Capability Improvement)				- / 3.250	- / 2.875	- / 3.949	- / 4.280	- / -	- / 4.280
P-40a***	99999X / Low Cost Modifications (Capability Improvement)				- / 11.339	- / -	- / 0.003	- / 2.000	- / -	- / 2.000
P-3a	602600 / F-16 LEGACY STRUCTURAL SLEP (Service Life Extension)		B		- / 0.000	- / 3.517	- / 18.127	- / 36.676	- / 0.000	- / 36.676
P-3a	618250 / Comm Suite Upgrade (Capability Improvement)		B		- / 0.000	- / 0.000	- / 45.916	- / 20.968	- / 0.000	- / 20.968
P-3a	633031 / HFLCC AGCAS (Capability Improvement)		B		- / -	- / -	- / 15.445	- / 14.060	- / 0.000	- / 14.060
P-3a	633032 / ADS-B Out (Capability Improvement)		B		- / -	- / -	- / 9.009	- / 36.381	- / 0.000	- / 36.381
P-3a	661653 / MIDS-JTRS (Capability Improvement)		B		- / 0.000	- / 14.075	- / 97.945	- / 196.888	- / 0.000	- / 196.888
P-3a	866251 / Full Combat Mission Training (Capability Improvement)		B		- / -	- / 0.000	- / 0.000	- / 5.671	- / 0.000	- / 5.671
P-40	**Total Gross/Weapon System Cost**				**- / 116.330**	**- / 274.331**	**- / 203.864**	**- / 324.312**	**- / 0.000**	**- / 324.312**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	602148 / MMC and Display Generator Upgrade (Capability Improvement)				- / 37.153	- / 80.833	- / 80.851	- / 82.320	- / 66.493	- / 347.650
P-40a***	633030 / Aggressors Update (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / 13.385
P-40a***	633041 / Anti Jam (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / 5.000
P-40a***	633042 / Missile Warning Systems (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / 12.000
P-40a***	661652 / Link 16 Crypto (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / 9.647
P-40a***	694050 / AESA Radars (Capability Improvement)				- / 16.655	- / 211.201	- / 321.640	- / 322.543	- / 454.974	- / 1,547.281
P-40a***	704050 / Digital Radar Warning Receiver (RWR) (Capability Improvement)				- / 34.315	- / 178.199	- / 16.037	- / 19.160	- / -	- / 247.711
P-40a***	8662 / AETC MTD UPGRADES-FIELD TRAINING DETACHMENTS (Capability Improvement)				- / 5.431	- / 5.529	- / 5.639	- / 5.742	- / -	- / 138.504

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft	**P-1 Line Item Number / Title:** F01600 / F-16

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0207133F, 0207445F, 0809731F	Other Related Program Elements: 0207133F, 0207445F, 0207701F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	866250 / F-16 TRAINING SYSTEMS (Capability Improvement)				- / 4.342	- / 4.221	- / 4.458	- / 4.539	- / -	- / 31.914
P-40a***	99999X / Low Cost Modifications (Capability Improvement)				- / 1.534	- / 2.000	- / 0.772	- / 0.785	- / -	- / 18.433
P-3a	602600 / F-16 LEGACY STRUCTURAL SLEP (Service Life Extension)		B		- / 56.542	- / 98.909	- / 105.540	- / 115.909	- / 341.839	- / 777.059
P-3a	618250 / Comm Suite Upgrade (Capability Improvement)		B		- / 94.849	- / 68.941	- / 47.309	- / 48.169	- / 218.656	- / 544.808
P-3a	633031 / HFLCC AGCAS (Capability Improvement)		B		- / 29.735	- / 21.936	- / 10.853	- / 2.600	- / 0.000	- / 94.629
P-3a	633032 / ADS-B Out (Capability Improvement)		B		- / 28.875	- / 36.532	- / 12.524	- / 12.752	- / 0.000	- / 136.073
P-3a	661653 / MIDS-JTRS (Capability Improvement)		B		- / 1.469	- / 55.188	- / 0.000	- / 0.000	- / 0.000	- / 365.565
P-3a	866251 / Full Combat Mission Training (Capability Improvement)		B		- / 1.960	- / 1.994	- / 2.034	- / 2.071	- / -	- / 13.730
P-40	**Total Gross/Weapon System Cost**				**- / 312.860**	**- / 765.483**	**- / 607.657**	**- / 616.590**	**- / 1,081.962**	**- / 4,303.389**

*** Although this is an Exhibit P-40a item, the actual exhibit is not included since all of the required information for this item is already being shown here.

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01600 / F-16	**Modification Number / Title:** 602600 / F-16 LEGACY STRUCTURAL SLEP
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	3.517	18.127	36.676	0.000	36.676	56.542	98.909	105.540	115.909	341.839	777.059
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	3.517	18.127	36.676	0.000	36.676	56.542	98.909	105.540	115.909	341.839	777.059
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**3.517**	**18.127**	**36.676**	**0.000**	**36.676**	**56.542**	**98.909**	**105.540**	**115.909**	**341.839**	**777.059**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The goal of this program is to extend the F-16 service life beyond 8000 Equivalent Flying Hours (EFH) to ensure a continually viable fighter force. F-16 aircraft need modifications and structural enhancements to extend the service life of these fighters. The F-16 Structural Service Life Extension Program (SLEP) is intended to be a depot-level upgrade program to replace or rework known life-limited structure to preclude the onset of widespread fatigue damage, maintain safety of flight and enhance aircraft availability. Life-limited components and required installation dates will vary by aircraft block and will be determined via the F-16 Full Scale Durability Test (FSDT) and Engineering and Manufacturing Development (EMD) phase. Without modification of life-limited structures, the F-16 will experience continued structural degradation, which will adversely affect future mission capable rates and become increasingly costly to correct. Because of potential variation in modification requirements and installation schedules among aircraft blocks, the quantity and unit cost of kit procurement and hardware installation will differ from year to year, depending on the mix of aircraft involved.

This funding request will support potential DMS and obsolescence solutions, to include, if optimal, life of type buys or bridge buys limited to the program of record quantity.

Milestone/Development Status

The FSDT contract was awarded on April 28, 2011, while the EMD was awarded Nov 13, 2013. Development efforts run through 2018. Four aircraft will be modified as part of the EMD program. Following successful kit proofing, the program will purchase four kits in a low rate production phase and then transition into full rate production by 2020. The production kit contract is expected to award NLT Jun 2018.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	3.517	17.727	34.300	-	34.300	51.039	90.654	95.358	108.424
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	0.400	2.376	-	2.376	5.503	8.255	10.182	7.485
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**3.517**	**18.127**	**36.676**	**0.000**	**36.676**	**56.542**	**98.909**	**105.540**	**115.909**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01600 / F-16	**Modification Number / Title:** 602600 / F-16 LEGACY STRUCTURAL SLEP
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: F-16	**Modification Type:** Service Life Extension	**Related RDT&E PEs:** 0207133F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0207133F	4 / 76.098	- / 4.783	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 80.881
Procurement												
Modification Item 1 of 1: Legacy SLEP Kit												
A Kits												
Recurring												
Legacy SLEP Kit:INSTALL KITS Group A (Active)	- / -	4 / 1.629	3 / 1.200	14 / 5.600	- / -	14 / 5.600	35 / 14.000	34 / 13.600	42 / 16.800	42 / 16.800	64 / 25.600	238 / 95.229
Legacy SLEP Kit:INSTALL KITS Group A (Guard)	- / -	- / -	1 / 0.400	4 / 1.600	- / -	4 / 1.600	6 / 2.400	9 / 3.600	8 / 3.200	8 / 3.200	22 / 8.800	58 / 23.200
Subtotal: Recurring	*- / -*	*- / 1.629*	*- / 1.600*	*- / 7.200*	*- / -*	*- / 7.200*	*- / 16.400*	*- / 17.200*	*- / 20.000*	*- / 20.000*	*- / 34.400*	*- / 118.429*
Subtotal: Legacy SLEP Kit	*- / -*	*- / 1.629*	*- / 1.600*	*- / 7.200*	*- / -*	*- / 7.200*	*- / 16.400*	*- / 17.200*	*- / 20.000*	*- / 20.000*	*- / 34.400*	*- / 118.429*
Subtotal: Procurement, All Modification Items	*- / -*	*- / 1.629*	*- / 1.600*	*- / 7.200*	*- / -*	*- / 7.200*	*- / 16.400*	*- / 17.200*	*- / 20.000*	*- / 20.000*	*- / 34.400*	*- / 118.429*
Support *(All Modification Items)*												
Change Orders	- / -	- / -	- / 0.400	- / 0.820	- / -	- / 0.820	- / 6.070	- / 5.280	- / 4.220	- / 3.700	- / 6.330	- / 26.820
SUPPORT-EQUIP	- / -	- / -	- / 6.970	- / 9.060	- / -	- / 9.060	- / 2.660	- / 5.260	- / 0.000	- / 0.000	- / 0.000	- / 23.950
OTHER GOVT	- / -	- / 1.888	- / 9.157	- / 6.308	- / -	- / 6.308	- / 2.665	- / 3.758	- / 17.422	- / 17.087	- / 24.332	- / 82.617
Subtotal: Support	*- / -*	*- / 1.888*	*- / 16.527*	*- / 16.188*	*- / -*	*- / 16.188*	*- / 11.395*	*- / 14.298*	*- / 21.642*	*- / 20.787*	*- / 30.662*	*- / 133.387*
Installation												
Modification Item 1 of 1: Legacy SLEP Kit	- / -	- / -	- / -	8 / 13.288	- / -	8 / 13.288	18 / 28.747	41 / 67.411	43 / 63.898	50 / 75.122	136 / 276.777	296 / 525.243
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*8 / 13.288*	*- / -*	*8 / 13.288*	*18 / 28.747*	*41 / 67.411*	*43 / 63.898*	*50 / 75.122*	*136 / 276.777*	*296 / 525.243*
Total												
Total Cost (Procurement + Support + Installation)	**0.000**	**3.517**	**18.127**	**36.676**	**0.000**	**36.676**	**56.542**	**98.909**	**105.540**	**115.909**	**341.839**	**777.059**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01600 / F-16	**Modification Number / Title:** 602600 / F-16 LEGACY STRUCTURAL SLEP

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 1: Legacy SLEP Kit

Manufacturer Information

Manufacturer Name: Lockheed Martin and TBD

Manufacturer Location: Fort Worth, TX and TBD

Administrative Leadtime *(in Months)*: 3

Production Leadtime *(in Months)*: 3

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Dec 2017 (1)	Apr 2018	Apr 2019	Apr 2020	Apr 2021	Apr 2022	Apr 2023
Delivery Dates	Mar 2018	Jul 2018	Jul 2019	Jul 2020	Jul 2021	Jul 2022	Jul 2023

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	4 / 7.150	- / -	4 / 7.150	- / -	- / -	- / -	- / -	- / -	4 / 7.150
FY 2018	- / -	- / -	- / -	4 / 6.138	- / -	4 / 6.138	- / -	- / -	- / -	- / -	- / -	4 / 6.138
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	18 / 28.747	- / -	- / -	- / -	- / -	18 / 28.747
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	41 / 67.411	- / -	- / -	- / -	41 / 67.411
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	43 / 63.898	- / -	- / -	43 / 63.898
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	50 / 75.122	- / -	50 / 75.122
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	50 / 89.704	50 / 89.704
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	86 / 187.073	86 / 187.073
Total	- / -	- / -	- / -	8 / 13.288	- / -	8 / 13.288	18 / 28.747	41 / 67.411	43 / 63.898	50 / 75.122	136 / 276.777	296 / 525.243

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	18	-	-	-	41	-	-	-	43	-	-	-	50	136	296
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	18	-	-	-	41	-	-	-	43	-	-	-	186	296

Footnotes:

(1) Manufacturer for the Four (4) SLEP Urgent Need Kits is Lockheed Martin. Remaining kits will competed.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01600 / F-16	**Modification Number / Title:** 618250 / Comm Suite Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	0.000	45.916	20.968	0.000	20.968	94.849	68.941	47.309	48.169	218.656	544.808
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	0.000	45.916	20.968	0.000	20.968	94.849	68.941	47.309	48.169	218.656	544.808
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**0.000**	**45.916**	**20.968**	**0.000**	**20.968**	**94.849**	**68.941**	**47.309**	**48.169**	**218.656**	**544.808**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Chairman, Joint Chiefs of Staff directed a modernization effort based on the recommendation of the National Security Agency (NSA) to modernize equipment and provide enhanced security for tactical networks (Cryptographic Modernization (CMI)). The F-16 Comm Suite Upgrade will include Cryptographic Modernization (CM), Mobile User Objective System (MUOS) and second generation Anti-Jam Tactical UHF Radio for NATO (SATURN).

This funding request will support potential DMS and obsolescence solutions, to include, if optimal, life of type buys or bridge buys limited to the program of record quantity.

Milestone/Development Status

Continue NRE efforts. Procure Group B Test assets.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	18.807	7.207	-	7.207	65.693	18.648	41.571	48.169
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	27.109	13.761	-	13.761	29.156	50.293	5.738	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**0.000**	**45.916**	**20.968**	**0.000**	**20.968**	**94.849**	**68.941**	**47.309**	**48.169**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01600 / F-16	**Modification Number / Title:** 618250 / Comm Suite Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: F-16	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0207133F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0207133F	- / -	- / 2.976	24 / 12.416	- / 5.670	- / -	- / 5.670	- / 5.099	- / -	- / -	- / -	- / -	24 / 26.161
Procurement												
Modification Item 1 of 1: Comm Suite MUOS												
A Kits												
Recurring												
Comm Suite MUOS:INSTALL KITS Group A (Active)	- / -	- / -	- / -	- / -	- / -	- / -	79 / 29.442	20 / 6.320	24 / 9.288	90 / 34.850	398 / 162.382	611 / 242.282
Comm Suite MUOS:INSTALL KITS Group A (Guard)	- / -	- / -	89 / 27.109	22 / 6.358	- / -	22 / 6.358	92 / 27.293	134 / 42.344	- / -	- / -	- / -	337 / 103.104
Subtotal: Recurring	*- / -*	*- / -*	*- / 27.109*	*- / 6.358*	*- / -*	*- / 6.358*	*- / 56.735*	*- / 48.664*	*- / 9.288*	*- / 34.850*	*- / 162.382*	*- / 345.386*
Subtotal: Comm Suite MUOS	*- / -*	*- / -*	*- / 27.109*	*- / 6.358*	*- / -*	*- / 6.358*	*- / 56.735*	*- / 48.664*	*- / 9.288*	*- / 34.850*	*- / 162.382*	*- / 345.386*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / 27.109*	*- / 6.358*	*- / -*	*- / 6.358*	*- / 56.735*	*- / 48.664*	*- / 9.288*	*- / 34.850*	*- / 162.382*	*- / 345.386*
Support *(All Modification Items)*												
GROUP A: TOTAL NONRECURRING	- / -	- / -	- / 11.833	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 11.833
Type 1 Training	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.082	- / -	- / -	- / -	- / -	- / 2.082
Change Orders	- / -	- / -	- / 3.931	- / 3.721	- / -	- / 3.721	- / 6.412	- / 4.000	- / 1.226	- / 3.720	- / 7.482	- / 30.492
OTHER GOVT	- / -	- / -	- / 1.920	- / 1.311	- / -	- / 1.311	- / 25.425	- / 5.001	- / 24.857	- / 4.615	- / 5.166	- / 68.295
SUPPORT-EQUIP	- / -	- / -	- / 1.123	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.123
Mod of Spares	- / -	- / -	- / -	- / 2.175	- / -	- / 2.175	- / 2.332	- / 2.397	- / 4.248	- / 3.321	- / 24.721	- / 39.194
Subtotal: Support	*- / -*	*- / -*	*- / 18.807*	*- / 7.207*	*- / -*	*- / 7.207*	*- / 36.251*	*- / 11.398*	*- / 30.331*	*- / 11.656*	*- / 37.369*	*- / 153.019*
Installation												
Modification Item 1 of 1: Comm Suite MUOS	- / -	- / -	- / -	89 / 7.403	- / -	89 / 7.403	22 / 1.863	118 / 8.879	187 / 7.690	44 / 1.663	488 / 18.905	948 / 46.403
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*89 / 7.403*	*- / -*	*89 / 7.403*	*22 / 1.863*	*118 / 8.879*	*187 / 7.690*	*44 / 1.663*	*488 / 18.905*	*948 / 46.403*
Total												
Total Cost (Procurement + Support + Installation)	**0.000**	**0.000**	**45.916**	**20.968**	**0.000**	**20.968**	**94.849**	**68.941**	**47.309**	**48.169**	**218.656**	**544.808**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01600 / F-16	**Modification Number / Title:** 618250 / Comm Suite Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 1: Comm Suite MUOS

Manufacturer Information

Manufacturer Name: tbd	Manufacturer Location: tbd
Administrative Leadtime *(in Months)*: 3	Production Leadtime *(in Months)*: 6

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Mar 2018	Mar 2019	Mar 2020	Mar 2021	Mar 2022	Mar 2023
Delivery Dates		Sep 2018	Sep 2019	Sep 2020	Sep 2021	Sep 2022	Sep 2023

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	89 / 7.403	- / -	89 / 7.403	- / -	- / -	- / -	- / -	- / -	89 / 7.403
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	22 / 1.863	- / -	- / -	- / -	- / -	22 / 1.863
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	118 / 8.879	53 / 1.952	- / -	- / -	171 / 10.831
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	134 / 5.738	20 / 0.758	- / -	154 / 6.496
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 0.905	- / -	24 / 0.905
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	90 / 3.370	90 / 3.370
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	398 / 15.535	398 / 15.535
Total	- / -	- / -	- / -	89 / 7.403	- / -	89 / 7.403	22 / 1.863	118 / 8.879	187 / 7.690	44 / 1.663	488 / 18.905	948 / 46.403

Installation Schedule

		FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023					
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	0	-	-	-	-	-	-	-	-	22	22	22	23	5	5	6	6	23	23	36	36	47	47	47	46	11	11	11	11	488	948
Out	0	-	-	-	-	-	-	-	-	-	22	22	22	23	5	5	6	6	23	23	36	36	47	47	47	46	11	11	11	499	948

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01600 / F-16	**Modification Number / Title:** 633031 / HFLCC AGCAS
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	-	15.445	14.060	0.000	14.060	29.735	21.936	10.853	2.600	0.000	94.629
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	15.445	14.060	0.000	14.060	29.735	21.936	10.853	2.600	0.000	94.629
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**15.445**	**14.060**	**0.000**	**14.060**	**29.735**	**21.936**	**10.853**	**2.600**	**0.000**	**94.629**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Hybrid Flight Control Computer (HFLCC) Auto Ground Collision Avoidance System development and integration for A/C prevents most controlled flight into terrain (CFIT) accidents using terrain database and prediction algorithms for aircraft trajectory recovery and executes an automated fly up maneuver to avoid collision.

This funding request will support potential DMS and obsolescence solutions, to include if optimal, life of type buys limited to the program of record quantity.

Milestone/Development Status

AFRL has been funded to complete HFLCC development. HFLCC Development will be complete by FY18 resulting in a fully qualified HFLCC SPO Program will update engineering and integrate hardware onto platform.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	15.445	14.060	-	14.060	22.789	11.427	5.543	1.647
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	0.000	-	-	-	6.946	10.509	5.310	0.953
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**-**	**15.445**	**14.060**	**0.000**	**14.060**	**29.735**	**21.936**	**10.853**	**2.600**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	P-1 Line Item Number / Title: F01600 / F-16	Modification Number / Title: 633031 / HFLCC AGCAS
ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:	
Models of Systems Affected: F-16	Modification Type: Capability Improvement	Related RDT&E PEs: 0207133F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0207133F	- / -	- / -	- / 18.962	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 18.962
Procurement												
Modification Item 1 of 2: COMMON: SCU upgrade												
B Kits												
Recurring												
COMMON: SCU upgrade:EQUIPMENT Group B (Active)	- / -	- / -	4 / 1.324	- / -	- / -	- / -	24 / 5.111	26 / 5.799	19 / 2.544	- / -	- / -	73 / 14.778
COMMON: SCU upgrade:EQUIPMENT Group B (Guard)	- / -	- / -	- / -	- / -	- / -	- / -	60 / 5.623	64 / 6.298	19 / 1.963	- / -	- / -	143 / 13.884
Subtotal: Recurring	*- / -*	*- / -*	*- / 1.324*	*- / -*	*- / -*	*- / -*	*- / 10.734*	*- / 12.097*	*- / 4.507*	*- / -*	*- / -*	*- / 28.662*
Subtotal: COMMON: SCU upgrade	*- / -*	*- / -*	*- / 1.324*	*- / -*	*- / -*	*- / -*	*- / 10.734*	*- / 12.097*	*- / 4.507*	*- / -*	*- / -*	*- / 28.662*
Modification Item 2 of 2: Install Kits Group A												
A Kits												
Recurring												
Install Kits Group A:INSTALL KITS Group A (Active)	- / -	- / -	4 / 0.080	0 / 0.000	- / -	0 / 0.000	24 / 0.860	26 / 1.135	19 / 0.462	- / -	- / -	73 / 2.537
Install Kits Group A:INSTALL KITS Group A (Guard)	- / -	- / -	- / -	- / -	- / -	- / -	60 / 1.323	64 / 1.482	19 / 0.291	- / -	- / -	143 / 3.096
Subtotal: Recurring	*- / -*	*- / -*	*- / 0.080*	*- / 0.000*	*- / -*	*- / 0.000*	*- / 2.183*	*- / 2.617*	*- / 0.753*	*- / -*	*- / -*	*- / 5.633*
Subtotal: Install Kits Group A	*- / -*	*- / -*	*- / 0.080*	*- / 0.000*	*- / -*	*- / 0.000*	*- / 2.183*	*- / 2.617*	*- / 0.753*	*- / -*	*- / -*	*- / 5.633*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / 1.404*	*- / 0.000*	*- / -*	*- / 0.000*	*- / 12.917*	*- / 14.714*	*- / 5.260*	*- / -*	*- / -*	*- / 34.295*
Support *(All Modification Items)*												
Change Orders	- / -	- / -	- / 3.665	- / 0.275	- / -	- / 0.275	- / 0.275	- / 0.275	- / 0.275	- / 0.275	- / -	- / 5.040
OTHER GOVT	- / -	- / -	- / 10.236	- / 13.785	- / -	- / 13.785	- / 16.543	- / 2.717	- / 0.362	- / 0.419	- / -	- / 44.062
Subtotal: Support	*- / -*	*- / -*	*- / 13.901*	*- / 14.060*	*- / -*	*- / 14.060*	*- / 16.818*	*- / 2.992*	*- / 0.637*	*- / 0.694*	*- / -*	*- / 49.102*
Installation												
Modification Item 2 of 2: Install Kits Group A	- / -	- / -	4 / 0.140	- / -	- / -	- / -	- / -	84 / 4.230	90 / 4.956	38 / 1.906	- / -	216 / 11.232
Subtotal: Installation	*- / -*	*- / -*	*4 / 0.140*	*- / -*	*- / -*	*- / -*	*- / -*	*84 / 4.230*	*90 / 4.956*	*38 / 1.906*	*- / -*	*216 / 11.232*
Total												
Total Cost (Procurement + Support + Installation)	**-**	**-**	**15.445**	**14.060**	**0.000**	**14.060**	**29.735**	**21.936**	**10.853**	**2.600**	**0.000**	**94.629**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01600 / F-16	**Modification Number / Title:** 633031 / HFLCC AGCAS

ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**

Modification Item 1 of 2: COMMON: SCU upgrade

Manufacturer Information

Manufacturer Name: N/A	Manufacturer Location: N/A
Administrative Leadtime *(in Months)*:	Production Leadtime *(in Months)*:

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation (Organic): Org/Intermediate	**Installation Quantity:** 0

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01600 / F-16	**Modification Number / Title:** 633031 / HFLCC AGCAS

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 2 of 2: Install Kits Group A

Manufacturer Information

Manufacturer Name: TBD

Manufacturer Location: Hill AFB

Administrative Leadtime *(in Months)*: 6

Production Leadtime *(in Months)*: 3

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		May 2018		May 2020	May 2021	May 2022	
Delivery Dates		Aug 2018		Aug 2020	Aug 2021	Aug 2022	

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	4 / 0.140	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 0.140
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	84 / 4.230	- / -	- / -	- / -	84 / 4.230
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	90 / 4.956	- / -	- / -	90 / 4.956
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	38 / 1.906	- / -	38 / 1.906
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	4 / 0.140	- / -	- / -	- / -	- / -	84 / 4.230	90 / 4.956	38 / 1.906	- / -	216 / 11.232

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	84	-	-	-	90	-	-	-	38	0	216
Out	0	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	84	-	-	-	90	38	216

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01600 / F-16	**Modification Number / Title:** 633032 / ADS-B Out
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	-	9.009	36.381	0.000	36.381	28.875	36.532	12.524	12.752	0.000	136.073
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	9.009	36.381	0.000	36.381	28.875	36.532	12.524	12.752	0.000	136.073
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**9.009**	**36.381**	**0.000**	**36.381**	**28.875**	**36.532**	**12.524**	**12.752**	**0.000**	**136.073**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Automatic Dependent Surveillance - Broadcast (ADS-B) Out provides improved altitude, airspeed and location info to ground stations and other equipped aircraft in vicinity. The update for F-16 aircraft is a software/firmware update and includes a GPS card update.

This funding request will support potential DMS and obsolescence solutions, to include, if optimal, life of type buys or bridge buys limited to the program of record quantity.

Milestone/Development Status

ADS-B Development is covered under the F-16 OFP update program.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	9.009	31.601	-	31.601	21.579	36.532	12.524	3.302
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	3.824	-	3.824	4.256	-	-	9.450
AFR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	0.956	-	0.956	3.040	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**-**	**9.009**	**36.381**	**0.000**	**36.381**	**28.875**	**36.532**	**12.524**	**12.752**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01600 / F-16	**Modification Number / Title:** 633032 / ADS-B Out
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: F-16	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0207133F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0207133F	- / -	- / -	- / 3.082	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.082
Procurement												
Modification Item 1 of 1: SCU 8 and APX 126												
A Kits												
Recurring												
SCU 8 and APX 126:INSTALL KITS Group A (Active)	- / -	- / -	- / -	18 / 8.604	- / -	18 / 8.604	18 / 8.604	39 / 18.642	15 / 7.170	- / -	- / -	90 / 43.020
SCU 8 and APX 126:INSTALL KITS Group A (Guard)	- / -	- / -	- / -	28 / 3.824	- / -	28 / 3.824	- / -	- / -	- / -	15 / 7.170	- / -	43 / 10.994
SCU 8 and APX 126:INSTALL KITS Group A (Reserve)	- / -	- / -	- / -	2 / 0.956	- / -	2 / 0.956	- / -	- / -	- / -	- / -	- / -	2 / 0.956
Subtotal: Recurring	- / -	- / -	- / -	- / 13.384	- / -	- / 13.384	- / 8.604	- / 18.642	- / 7.170	- / 7.170	- / -	- / 54.970
Subtotal: SCU 8 and APX 126	- / -	- / -	- / -	- / 13.384	- / -	- / 13.384	- / 8.604	- / 18.642	- / 7.170	- / 7.170	- / -	- / 54.970
Subtotal: Procurement, All Modification Items	- / -	- / -	- / -	- / 13.384	- / -	- / 13.384	- / 8.604	- / 18.642	- / 7.170	- / 7.170	- / -	- / 54.970
Support *(All Modification Items)*												
SUPPORT-EQUIP	- / -	- / -	- / 2.899	- / 2.899	- / -	- / 2.899	- / -	- / -	- / -	- / -	- / -	- / 5.798
OTHER GOVT	- / -	- / -	- / 6.110	- / 20.098	- / -	- / 20.098	- / 10.239	- / 11.962	- / 1.706	- / 1.934	- / -	- / 52.049
Subtotal: Support	- / -	- / -	- / 9.009	- / 22.997	- / -	- / 22.997	- / 10.239	- / 11.962	- / 1.706	- / 1.934	- / -	- / 57.847
Installation												
Modification Item 1 of 1: SCU 8 and APX 126	- / -	- / -	- / -	- / -	- / -	- / -	48 / 10.032	18 / 5.928	21 / 3.648	24 / 3.648	24 / 0.000	135 / 23.256
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	48 / 10.032	18 / 5.928	21 / 3.648	24 / 3.648	24 / -	135 / 23.256
Total												
Total Cost (Procurement + Support + Installation)	-	-	9.009	36.381	0.000	36.381	28.875	36.532	12.524	12.752	0.000	136.073

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01600 / F-16	**Modification Number / Title:** 633032 / ADS-B Out
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 1: SCU 8 and APX 126

Manufacturer Information

Manufacturer Name: BAE	Manufacturer Location: NewYork
Administrative Leadtime *(in Months)*: 6	Production Leadtime *(in Months)*: 6

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates			Oct 2019	Oct 2020	Oct 2021	Oct 2022	Oct 2023
Delivery Dates			Apr 2020	Apr 2021	Apr 2022	Apr 2023	Apr 2024

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	48 / 10.032	- / -	- / -	- / -	- / -	48 / 10.032
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	18 / 2.736	- / -	- / -	- / -	18 / 2.736
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 3.192	21 / 2.736	18 / 0.000	- / -	39 / 5.928
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.912	6 / 1.368	9 / 0.000	15 / 2.280
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 2.280	15 / 0.000	15 / 2.280
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	48 / 10.032	18 / 5.928	21 / 3.648	24 / 3.648	24 / 0.000	135 / 23.256

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	-	-	16	16	16	4	4	4	6	6	6	5	4	6	6	6	6	24	135
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	16	16	4	4	4	6	6	6	5	4	6	6	6	30	135

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01600 / F-16	**Modification Number / Title:** 661653 / MIDS-JTRS
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	14.075	97.945	196.888	0.000	196.888	1.469	55.188	0.000	0.000	0.000	365.565
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	14.075	97.945	196.888	0.000	196.888	1.469	55.188	0.000	0.000	0.000	365.565
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**14.075**	**97.945**	**196.888**	**0.000**	**196.888**	**1.469**	**55.188**	**0.000**	**0.000**	**0.000**	**365.565**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Chairman, Joint Chiefs of Staff directed a modernization effort at the recommendation of the National Security Agency (NSA) to modernize equipment and provide enhanced security for Link 16 tactical networks (Cryptographic Modernization (CM)). Likewise, a radio frequency spectrum memorandum of agreement between the DoD and the Department of Transportation mandate the internal frequency remapping for our Link 16 family of terminals to avoid conflict with next generation Federal Aviation Administration radio aids to navigation. These two mandates will be satisfied by replacing existing Link 16 Multi-functional Information Distribution System (MIDS) Low Volume Terminals (LVT) with MIDS-Joint Tactical Radio System (JTRS) CMN-4 terminals. MIDS-JTRS terminals will also improve the F-16 capability by providing higher data bandwidth, lower latency, and growth capability to ultimately incorporate secure, jam-resistant J-Voice and three growth slots which could host additional waveforms (Mobile User Objective System (MUOS), Integrated Broadcast Service (IBS), etc.). Also, the terminals will include 4-Channel Concurrent Multi-netting(CMN-4)and Concurrent Contention Receive (CCR) capabilities, which are ACC requirements and critical to F-16 Link 16 network sustainability and capability.

Engineering and Manufacturing Development (EMD) for this program is being accomplished within the ongoing F-16 OFP development program. A total of 23 (15 on aircraft) MIDS-JTRS test assets were procured in FY15 with F-16 RDT&E funds. Pre-Milestone C approved in Aug 2017. 20 Production units ordered in Oct 2017 with balance of 20 to be ordered in March 2018. Full Milestone C approval projected in summer 2018

This funding request will support potential DMS and obsolescence solutions, to include, if optimal, life of type buys or bridge buys limited to the program of record quantity.

Milestone/Development Status

EMD is being accomplished as part of the F-16 OFP Updates program.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	14.075	86.797	163.262	-	163.262	1.469	15.871	0.000	0.000
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	11.148	33.626	-	33.626	0.000	39.317	-	-
Total:	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01600 / F-16	**Modification Number / Title:** 661653 / MIDS-JTRS
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Secondary Distribution	Total Obligation Authority	14.075	97.945	196.888	0.000	196.888	1.469	55.188	0.000	0.000

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01600 / F-16	**Modification Number / Title:** 661653 / MIDS-JTRS
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: F-16	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0207445F, 0207133F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0207133F	- / -	- / -	- / -	- / 3.585	- / -	- / 3.585	- / -	- / -	- / -	- / -	- / -	- / 3.585
Procurement												
Modification Item 1 of 1: MIDS-JTRS												
B Kits												
Recurring												
MIDS-JTRS:EQUIPMENT Group B (Active)	- / -	40 / 12.800	223 / 70.792	338 / 106.842	- / -	338 / 106.842	- / -	- / -	- / -	- / -	- / -	601 / 190.434
MIDS-JTRS:EQUIPMENT Group B (Guard)	- / -	- / -	24 / 11.148	72 / 33.626	- / -	72 / 33.626	0 / 0.000	72 / 39.317	- / -	- / -	- / -	168 / 84.091
Subtotal: Recurring	- / -	- / 12.800	- / 81.940	- / 140.468	- / -	- / 140.468	- / 0.000	- / 39.317	- / -	- / -	- / -	- / 274.525
Subtotal: MIDS-JTRS	- / -	- / 12.800	- / 81.940	- / 140.468	- / -	- / 140.468	- / 0.000	- / 39.317	- / -	- / -	- / -	- / 274.525
Subtotal: Procurement, All Modification Items	- / -	- / 12.800	- / 81.940	- / 140.468	- / -	- / 140.468	- / 0.000	- / 39.317	- / -	- / -	- / -	- / 274.525
Support *(All Modification Items)*												
SUPPORT-EQUIP	- / -	- / -	- / -	- / 5.162	- / -	- / 5.162	- / 0.000	- / -	- / -	- / -	- / -	- / 5.162
Change Orders	- / -	- / 1.275	- / 0.543	- / 7.300	- / -	- / 7.300	- / 0.000	- / 10.128	- / -	- / -	- / -	- / 19.246
OTHER GOVT	- / -	- / -	- / 15.462	- / 43.958	- / -	- / 43.958	- / 1.469	- / 5.743	- / 0.000	- / 0.000	- / -	- / 66.632
Subtotal: Support	- / -	- / 1.275	- / 16.005	- / 56.420	- / -	- / 56.420	- / 1.469	- / 15.871	- / 0.000	- / 0.000	- / -	- / 91.040
Installation												
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total												
Total Cost (Procurement + Support + Installation)	**0.000**	**14.075**	**97.945**	**196.888**	**0.000**	**196.888**	**1.469**	**55.188**	**0.000**	**0.000**	**0.000**	**365.565**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01600 / F-16	**Modification Number / Title:** 661653 / MIDS-JTRS
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 1: MIDS-JTRS

Manufacturer Information

Manufacturer Name: ViaSat and DSL	Manufacturer Location: Navy MPO, San Diego CA
Administrative Leadtime *(in Months)*: 7	Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Oct 2017	Aug 2018	Aug 2019		Aug 2021		
Delivery Dates	Oct 2018	Aug 2019	Aug 2020		Aug 2022		

Installation Information

Method of Implementation (Organic): Org/Intermediate	**Installation Quantity:** 769

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01600 / F-16	**Modification Number / Title:** 866251 / Full Combat Mission Training
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	0.000	0.000	5.671	0.000	5.671	1.960	1.994	2.034	2.071	-	13.730
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	0.000	5.671	0.000	5.671	1.960	1.994	2.034	2.071	-	13.730
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**0.000**	**5.671**	**0.000**	**5.671**	**1.960**	**1.994**	**2.034**	**2.071**	**-**	**13.730**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	0.214	0.000	0.212	0.000	0.212	0.216	0.220	0.224	0.116	-	1.202
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

-- Full Combat Mission Training funds include but are not limited to modifications of the F-16 Mission Training Centers (MTCs) (Simulators) driven by upgrades to the Operational Flight Program (OFP). The RDT&E funded updates to the MTC OFP is accomplished to keep the MTC concurrent with the aircraft. OFP updates may result in changes in the physical layout in the cockpit in both the aircraft and the MTC. This line funds the modifications to incorporate those changes in the MTC.
-- Funds are available to modify the capability of fielded F-16 training systems.
-- Funds may be used to address Diminishing manufacturing Sources (DMS) efforts to include removal of end-of-life software/hardware within simulators systems and move to a modular, common open system architecture that is sustainable and cyber-resilient.
-- Funds may be used to implement requirements and standards defined under the Simulator Common Architecture Requirements and Standards (SCARS) initiative
-- Program is not a new start. Work was previously performed in PE 0207701F, BPAC 119992

Milestone/Development Status

N/A

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	3.969	-	3.969	1.372	1.396	1.424	1.445
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	1.702	-	1.702	0.588	0.598	0.610	0.626
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**0.000**	**0.000**	**5.671**	**0.000**	**5.671**	**1.960**	**1.994**	**2.034**	**2.071**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01600 / F-16	**Modification Number / Title:** 866251 / Full Combat Mission Training
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: F-16	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0207701F, 0207133F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0207133F	- / -	- / -	- / -	- / 12.485	- / -	- / 12.485	- / 11.967	- / 11.640	- / 11.881	- / 12.083	- / -	- / 60.056
Procurement												
Modification Item 1 of 1: Trainer/Simulator kits (2)												
B Kits												
Recurring												
Trainer/Simulator kits:EQUIPMENT Group B (Active)	- / -	- / -	- / -	7 / 3.969	- / -	7 / 3.969	7 / 1.372	7 / 1.396	7 / 1.424	7 / 1.445	- / -	35 / 9.606
Trainer/Simulator kits:EQUIPMENT Group B (Guard)	- / -	- / -	- / -	3 / 1.702	- / -	3 / 1.702	3 / 0.588	3 / 0.598	3 / 0.610	3 / 0.626	- / -	15 / 4.124
Subtotal: Recurring	- / -	- / -	- / -	- / 5.671	- / -	- / 5.671	- / 1.960	- / 1.994	- / 2.034	- / 2.071	- / -	- / 13.730
Subtotal: Trainer/Simulator kits (2)	- / -	- / -	- / -	- / 5.671	- / -	- / 5.671	- / 1.960	- / 1.994	- / 2.034	- / 2.071	- / -	- / 13.730
Subtotal: Procurement, All Modification Items	- / -	- / -	- / -	- / 5.671	- / -	- / 5.671	- / 1.960	- / 1.994	- / 2.034	- / 2.071	- / -	- / 13.730
Installation												
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total												
Total Cost (Procurement + Support + Installation)	**-**	**0.000**	**0.000**	**5.671**	**0.000**	**5.671**	**1.960**	**1.994**	**2.034**	**2.071**	**-**	**13.730**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F01600 / F-16	**Modification Number / Title:** 866251 / Full Combat Mission Training

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 1: Trainer/Simulator kits (2)

Manufacturer Information

Manufacturer Name: L-3 Comm Corp - LINK Simulation & Training Division

Manufacturer Location: Arlington, TX

Administrative Leadtime *(in Months)*: 3

Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates			Jan 2019	Jan 2020	Jan 2021	Jan 2022	Jan 2023
Delivery Dates			Jan 2020	Jan 2021	Jan 2022	Jan 2023	Jan 2024

Installation Information

Method of Implementation (Organic): Org/Intermediate

Installation Quantity: 48

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft

P-1 Line Item Number / Title:
F0160P / F-16

ID Code (A=Service Ready, B=Not Service Ready): A | **Program Elements for Code B Items:** N/A | **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	0.000	0.000	0.011	0.000	0.011	0.000	0.133	0.000	0.000	-	0.144
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	0.000	0.011	0.000	0.011	0.000	0.133	0.000	0.000	-	0.144
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**0.000**	**0.011**	**0.000**	**0.011**	**0.000**	**0.133**	**0.000**	**0.000**	**-**	**0.144**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:
No text provided.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft	**P-1 Line Item Number / Title:** F02200 / F-22A

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0207138F	Other Related Program Elements: 0207138F

Line Item MDAP/MAIS Code: 265

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	2,444.347	146.008	161.630	265.710	0.000	265.710	244.571	325.026	358.840	461.682	4,560.780	8,968.594
Less PY Advance Procurement *($ in Millions)*	-	-	-	15.000	-	15.000	-	-	-	-	-	15.000
Net Procurement (P-1) *($ in Millions)*	2,444.347	146.008	161.630	250.710	0.000	250.710	244.571	325.026	358.840	461.682	4,560.780	8,953.594
Plus CY Advance Procurement *($ in Millions)*	-	-	15.000	-	-	-	-	-	-	-	-	15.000
Total Obligation Authority *($ in Millions)*	**2,444.347**	**146.008**	**176.630**	**250.710**	**0.000**	**250.710**	**244.571**	**325.026**	**358.840**	**461.682**	**4,560.780**	**8,968.594**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The F-22 Raptor provides air superiority to the Joint Force; access in the highly contested operational environment; as well as, homeland and cruise missile defense for the next 40+ years. The F-22 is the first operational multi-mission fighter aircraft that combines stealth, supercruise, maneuverability and integrated avionics to make it the world's most capable combat aircraft. The F-22 is currently in the post-production operations phase of it's acquisition lifecycle and therefore utilizes an acquisition strategy of balanced modernization and sustainment to maintain its asymmetric war fighting advantage. F-22 modernization and sustainment programs invest in upgrades to the air vehicle, engine, and training systems to improve F-22 weapons, communications, and Intelligence Surveillance Reconnaissance (ISR) capabilities. Funds may be used to resolve emerging safety of flight and diminishing manufacturing sources issues, accommodate technology insertion and fulfill FAA or other mandates necessary to ensure continued aircrew safety and mission effectiveness.

Funding for the exhibit contained in Program (PE) 0207138F.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	123.602	154.856	235.625	-	235.625	234.408	317.060	353.997	452.272
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	22.406	21.774	15.085	-	15.085	10.163	7.966	4.843	9.410
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**146.008**	**176.630**	**250.710**	**-**	**250.710**	**244.571**	**325.026**	**358.840**	**461.682**

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft

P-1 Line Item Number / Title:
F02200 / F-22A

ID Code (A=Service Ready, B=Not Service Ready): B | **Program Elements for Code B Items:** 0207138F | **Other Related Program Elements:** 0207138F

Line Item MDAP/MAIS Code: 265

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-3a	1 / COMMON CONFIGURATION (Capability Improvement)		A		- / 668.077	- / 1.131	- / 0.000	- / -	- / -	- / -
P-3a	2 / INCREMENT 3.1 (Capability Improvement)		A		- / 249.772	- / 2.877	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-3a	3 / Reliability and Maintainability Program (Reliability & Maintainability)		A		- / 1,119.467	- / 118.555	- / 133.622	- / 105.145	- / 0.000	- / 105.145
P-3a	4 / Helmet Mounted Display and Cueing System (HMDCS) (Capability Improvement)		A		- / -	- / 0.000	- / 0.000	- / 0.000	- / -	- / 0.000
P-3a	5 / TACLink 16 (Capability Improvement)		A		- / -	- / -	- / 0.000	- / 109.914	- / 0.000	- / 109.914
P-3a	6 / F119 Engine Modifications (Other)		A		- / 69.793	- / 4.780	- / 8.104	- / 8.489	- / 0.000	- / 8.489
P-3a	7 / Structures Retrofit Plan (Service Life Extension)		A		- / 248.991	- / 14.598	- / 10.689	- / 9.073	- / 0.000	- / 9.073
P-3a	8 / Trainers Modernization (Safety)		A		- / 84.543	- / 4.067	- / 9.215	- / 12.329	- / 0.000	- / 12.329
P-3a	9 / Crypto Modernization (Capability Improvement)		A		- / 3.704	- / 0.000	- / 0.000	- / 0.760	- / 0.000	- / 0.760
P-3a	10 / Tactical Mandates (Capability Improvement)		A		- / -	- / -	- / -	- / 20.000	- / 0.000	- / 20.000
P-3a	11 / Mid-Life Updates (Capability Improvement)		B		- / -	- / 0.000	- / 0.000	- / 0.000	- / -	- / 0.000
P-3a	12 / Sensor Enhancement (Capability Improvement)		B		- / -	- / 0.000	- / 0.000	- / 0.000	- / -	- / 0.000
P-3a	13 / M-Code (Reliability & Maintainability)		A		- / -	- / 0.000	- / 0.000	- / 0.000	- / -	- / 0.000
P-3a	14 / Pylon (Capability Improvement)		B		- / -	- / 0.000	- / 0.000	- / 0.000	- / -	- / 0.000
P-40	**Total Gross/Weapon System Cost**				**- / 2,444.347**	**- / 146.008**	**- / 161.630**	**- / 265.710**	**- / 0.000**	**- / 265.710**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-3a	1 / COMMON CONFIGURATION (Capability Improvement)		A		- / -	- / -	- / -	- / -	- / -	- / 669.208
P-3a	2 / INCREMENT 3.1 (Capability Improvement)		A		- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / 252.649
P-3a	3 / Reliability and Maintainability Program (Reliability & Maintainability)		A		- / 73.146	- / 72.078	- / 37.945	- / 87.173	- / 0.000	- / 1,747.131
P-3a	4 / Helmet Mounted Display and Cueing System (HMDCS) (Capability Improvement)		A		- / 0.000	- / 0.000	- / 12.900	- / 16.969	- / 0.000	- / 29.869
P-3a	5 / TACLink 16 (Capability Improvement)		A		- / 77.600	- / 107.400	- / 74.700	- / 7.500	- / 0.000	- / 377.114
P-3a	6 / F119 Engine Modifications (Other)		A		- / 9.547	- / 9.069	- / 5.174	- / 0.976	- / 0.000	- / 115.932
P-3a	7 / Structures Retrofit Plan (Service Life Extension)		A		- / 2.218	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 285.569
P-3a	8 / Trainers Modernization (Safety)		A		- / 11.920	- / 14.492	- / 15.607	- / 16.025	- / 0.000	- / 168.198
P-3a	9 / Crypto Modernization (Capability Improvement)		A		- / 3.530	- / 2.540	- / 0.000	- / 0.000	- / 0.000	- / 10.534
P-3a	10 / Tactical Mandates (Capability Improvement)		A		- / 0.000	- / 34.800	- / 35.900	- / 31.900	- / 0.000	- / 122.600
P-3a	11 / Mid-Life Updates (Capability Improvement)		B		- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 3,755.420	- / 3,755.420
P-3a	12 / Sensor Enhancement (Capability Improvement)		B		- / 66.610	- / 84.647	- / 141.014	- / 257.091	- / 414.360	- / 963.722
P-3a	13 / M-Code (Reliability & Maintainability)		A		- / 0.000	- / 0.000	- / 35.600	- / 13.418	- / 391.000	- / 440.018
P-3a	14 / Pylon (Capability Improvement)		B		- / 0.000	- / 0.000	- / 0.000	- / 30.630	- / 0.000	- / 30.630

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft	**P-1 Line Item Number / Title:** F02200 / F-22A	
ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0207138F	**Other Related Program Elements:** 0207138F
Line Item MDAP/MAIS Code: 265		

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-40	Total Gross/Weapon System Cost				- / 244.571	- / 325.026	- / 358.840	- / 461.682	- / 4,560.780	- / 8,968.594

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 1 / COMMON CONFIGURATION
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	668.077	1.131	0.000	-	-	-	-	-	-	-	-	669.208
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	668.077	1.131	0.000	-	-	-	-	-	-	-	-	669.208
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**668.077**	**1.131**	**0.000**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**669.208**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Common Configuration upgraded the F-22 production aircraft to reduce fielded OFP configurations from six to three -- Block 20, Block 30 and Block 35. Block 30 and 35 Raptors will be further upgraded with Increment 3.1 (complete in FY 2017) and 3.2 capabilities.

Common configuration installation completed in FY 2017.

Milestone/Development Status

Development complete

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.069	-	-	-	-	-	-	-	-
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	1.062	-	-	-	-	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**1.131**	**0.000**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 1 / COMMON CONFIGURATION
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: F-22	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0207138F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Common Configuration												
B Kits												
Recurring												
Common Configuration:EQUIPMENT Group B (Active)	61 / 322.518	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	61 / 322.518
Common Configuration:EQUIPMENT Group B (Guard)	20 / 234.052	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	20 / 234.052
Common Configuration:EQUIPMENT Group B (Reserve)	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
Subtotal: Recurring	*- / 556.570*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 556.570*
Subtotal: Common Configuration	*- / 556.570*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 556.570*
Subtotal: Procurement, All Modification Items	*- / 556.570*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 556.570*
Support *(All Modification Items)*												
GROUP B: TOTAL NONRECURRING	- / 83.364	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 83.364
OTHER GOVT	- / 0.407	- / 0.069	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.476
Subtotal: Support	*- / 83.771*	*- / 0.069*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 83.840*
Installation												
Modification Item 1 of 1: Common Configuration	76 / 27.736	5 / 1.062	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	81 / 28.798
Subtotal: Installation	*76 / 27.736*	*5 / 1.062*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*81 / 28.798*
Total												
Total Cost (Procurement + Support + Installation)	**668.077**	**1.131**	**0.000**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**669.208**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 1 / COMMON CONFIGURATION

ID Code (A=Service Ready, B=Not Service Ready) : A | **MDAP/MAIS Code:**

Modification Item 1 of 1: Common Configuration

Manufacturer Information

Manufacturer Name: Lockheed Martin | Manufacturer Location: Hill AFB

Administrative Leadtime *(in Months)*: 4 | Production Leadtime *(in Months)*: 30

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	76 / 27.736	5 / 1.062	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	81 / 28.798
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	76 / 27.736	5 / 1.062	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	81 / 28.798

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	76	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	81
Out	76	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	81

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 2 / INCREMENT 3.1
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	249.772	2.877	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	-	252.649
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	249.772	2.877	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	-	252.649
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**249.772**	**2.877**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**-**	**-**	**252.649**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Increment 3.1 hardware modifications enabled the F-22 to host Increment 3.1 capabilities including retargeting Joint Direct Attack Munitions (JDAM), carriage and delivery of the Small Diameter Bomb (SDB) on preplanned missions using the Joint Mission Planning System (JMPS), using Synthetic Aperture Radar (SAR) Air-to-Ground radar mode to permit attack of emerging targets, and saving SAR imagery onto the Tactical Data Transfer System (TDTS) for post-mission analysis.

Increment 3.1 modernized the F-22 aircraft with Enhanced Central Integrated Processor (ECIP) cards, a new Map Inter-Face (MIF) board for the 4th generation APG-77VI radar, a modification to the GPS Inertial Navigation System (GINS), and a TDTS.

Kit installations were completed in FY 2017.

Milestone/Development Status

Development complete.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.033	-	-	-	-	-	-	-	-
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	2.844	-	-	-	-	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**2.877**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**-**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 2 / INCREMENT 3.1
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: F-22	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0207138F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Increment 31												
A Kits												
Recurring												
Increment 31:INSTALL KITS Group A (Active)	- / 1.430	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.430
Subtotal: Recurring	*- / 1.430*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 1.430*
B Kits												
Recurring												
Increment 31:EQUIPMENT Group B (Active)	123 / 168.210	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	123 / 168.210
Increment 31:EQUIPMENT Group B (Guard)	20 / 35.378	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	20 / 35.378
Subtotal: Recurring	*- / 203.588*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 203.588*
Subtotal: Increment 31	*- / 205.018*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 205.018*
Subtotal: Procurement, All Modification Items	*- / 205.018*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 205.018*
Support *(All Modification Items)*												
GROUP B: TOTAL NONRECURRING	- / 5.778	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.778
SIM/TRAINER	20 / 4.235	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	20 / 4.235
OTHER GOVT	- / 1.436	- / 0.033	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.469
Subtotal: Support	*20 / 11.449*	*- / 0.033*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*20 / 11.482*
Installation												
Modification Item 1 of 1: Increment 31	134 / 33.305	9 / 2.844	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	143 / 36.149
Subtotal: Installation	*134 / 33.305*	*9 / 2.844*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*143 / 36.149*
Total												
Total Cost (Procurement + Support + Installation)	**249.772**	**2.877**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**-**	**-**	**252.649**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 2 / INCREMENT 3.1
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 1 of 1: Increment 31

Manufacturer Information

Manufacturer Name: Lockheed Martin	Manufacturer Location: Hill AFB
Administrative Leadtime *(in Months)*: 7	Production Leadtime *(in Months)*: 30

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	134 / 33.305	9 / 2.844	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	143 / 36.149
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	134 / 33.305	9 / 2.844	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	143 / 36.149

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	134	2	2	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	143
Out	134	2	2	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	143

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 3 / Reliability and Maintainability Program
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	1,119.467	118.555	133.622	105.145	0.000	105.145	73.146	72.078	37.945	87.173	0.000	1,747.131
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,119.467	118.555	133.622	105.145	0.000	105.145	73.146	72.078	37.945	87.173	0.000	1,747.131
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,119.467**	**118.555**	**133.622**	**105.145**	**0.000**	**105.145**	**73.146**	**72.078**	**37.945**	**87.173**	**0.000**	**1,747.131**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Reliability, Availability, and Maintainability Program (RAMP) provides solution identification and integration of modifications to improve reliability, availability and maintainability (RAM) for the F-22 fleet. The associated RAMP efforts (O&S funded) develop candidate initiatives, which are down-selected by air Combat Command, for implementation based on development maturity and impact on the F-22 life cycle costs. The RAMP program includes funding for retrofit installation touch labor, modifications to address corrosion, reduce maintenance hours, increase safety and provide urgent response requirements identified by the user to the F-22 fleet. Urgent response requirements are quick demand requirements addressing safety or air superiority, ensuring the warfighter and the weapon system are operating as intended. RAMP funds may be used to resolve emerging safety of flight and diminishing manufacturing sources issues, accommodate technology insertion and fulfill FAA or other mandates necessary to ensure continued aircrew safety and mission effectiveness. RAMP includes mission support costs for the F-22 program to include, but not be limited to travel, computer costs and contractor support.

The RAMP modifications program currently include individual RAMP projects, totaling over 9,600 kits, which retrofitted onto aircraft based on aircraft downtime opportunities. In FY 2019, RAMP kit procurement and installation will continue on projects such as; Configurable Rail Launchers (CRL) AIM-9X extension kits which enable AIM-9X employment; Low Observable (LO) Mighty Tough Boot which replaces less durable boot material and leads to an estimated 3% increase in aircraft reliability; field level replacement of CNI AAI Cables (current cable failing at 10% of 8,000 hour life - new cable eliminates any direct maintenance on cable assembly); FIBER Infrastructure which maximizes connectivity and preserves 10 maintenance days of aircraft availability per tail number; and the Aft Boom Surface which replaces damage to the leading flap surface area that if not corrected will ground the fleet at 2,100 hours. Every RAMP retrofit kit, to include those not listed, has a component level improvement metric and contributes to the overall availability and reliability improvement of the F-22.

Kit installations are completed at either the depot or by a contractor field team depending on the complexity of the installation effort and scheduled aircraft downtime opportunities. Quantities are based on an assumed maturity of the solution identification and are subject to change over time. The average cost per kit varies based on planned retrofit kits in a given year and the complexity of the materials and labor required to integrate and install on the fleet.

This program was formerly the Reliability, Availability and Maintainability Maturations Program (RAMMP).

Milestone/Development Status

The solution identification effort provides for the non-recurring engineering efforts associated with future retrofit projects that increase Reliability, Availability, and Maintainability of the aircraft through the FYDP. As these projects are tested and qualified, they are implemented via the retrofit program.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 3 / Reliability and Maintainability Program
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	102.099	114.762	94.412	-	94.412	65.403	65.505	34.018	77.935
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	16.456	18.860	10.733	-	10.733	7.743	6.573	3.927	9.238
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**118.555**	**133.622**	**105.145**	**0.000**	**105.145**	**73.146**	**72.078**	**37.945**	**87.173**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 3 / Reliability and Maintainability Program
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: F-22	**Modification Type:** Reliability & Maintainability	**Related RDT&E PEs:** 0207138F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: RAMMP Kits												
B Kits												
Recurring												
RAMMP Kits:EQUIPMENT Group B (Active)	5,937 / 622.973	1,292 / 47.132	514 / 17.976	711 / 26.666	- / -	711 / 26.666	527 / 21.625	415 / 17.510	62 / 4.690	743 / 29.599	- / -	10,201 / 788.171
RAMMP Kits:EQUIPMENT Group B (Guard)	863 / 55.114	228 / 8.317	66 / 3.172	94 / 3.419	- / -	94 / 3.419	76 / 2.773	62 / 2.245	16 / 0.602	104 / 3.794	- / -	1,509 / 79.436
Subtotal: Recurring	*- / 678.087*	*- / 55.449*	*- / 21.148*	*- / 30.085*	*- / -*	*- / 30.085*	*- / 24.398*	*- / 19.755*	*- / 5.292*	*- / 33.393*	*- / -*	*- / 867.607*
Subtotal: RAMMP Kits	*- / 678.087*	*- / 55.449*	*- / 21.148*	*- / 30.085*	*- / -*	*- / 30.085*	*- / 24.398*	*- / 19.755*	*- / 5.292*	*- / 33.393*	*- / -*	*- / 867.607*
Subtotal: Procurement, All Modification Items	*- / 678.087*	*- / 55.449*	*- / 21.148*	*- / 30.085*	*- / -*	*- / 30.085*	*- / 24.398*	*- / 19.755*	*- / 5.292*	*- / 33.393*	*- / -*	*- / 867.607*
Support *(All Modification Items)*												
OTHER GOVT	- / 23.680	- / 3.293	- / 2.671	- / 7.850	- / -	- / 7.850	- / 1.152	- / 10.611	- / -	- / 1.802	- / -	- / 51.059
Subtotal: Support	*- / 23.680*	*- / 3.293*	*- / 2.671*	*- / 7.850*	*- / -*	*- / 7.850*	*- / 1.152*	*- / 10.611*	*- / -*	*- / 1.802*	*- / -*	*- / 51.059*
Installation												
Modification Item 1 of 1: RAMMP Kits	6,800 / 417.700	1,520 / 59.813	580 / 109.803	805 / 67.210	- / -	805 / 67.210	603 / 47.596	477 / 41.712	78 / 32.653	847 / 51.978	- / -	11,710 / 828.465
Subtotal: Installation	*6,800 / 417.700*	*1,520 / 59.813*	*580 / 109.803*	*805 / 67.210*	*- / -*	*805 / 67.210*	*603 / 47.596*	*477 / 41.712*	*78 / 32.653*	*847 / 51.978*	*- / -*	*11,710 / 828.465*
Total												
Total Cost (Procurement + Support + Installation)	**1,119.467**	**118.555**	**133.622**	**105.145**	**0.000**	**105.145**	**73.146**	**72.078**	**37.945**	**87.173**	**0.000**	**1,747.131**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 3 / Reliability and Maintainability Program

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 1 of 1: RAMMP Kits

Manufacturer Information

Manufacturer Name: Lockheed Martin

Manufacturer Location: Hill AFB

Administrative Leadtime *(in Months)*: 3

Production Leadtime *(in Months)*: 0

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Jan 2017	Jan 2018	Jan 2019	Jan 2020	Jan 2021	Jan 2022	Jan 2023
Delivery Dates	Jan 2017	Jan 2018	Jan 2019	Jan 2020	Jan 2021	Jan 2022	Jan 2023

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	438 / 20.628	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	438 / 20.628
FY 2017	- / -	723 / 19.116	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	723 / 19.116
FY 2018	- / -	- / -	206 / 31.361	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	206 / 31.361
FY 2019	- / -	- / -	- / -	284 / 20.000	- / -	284 / 20.000	- / -	- / -	- / -	- / -	- / -	284 / 20.000
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	211 / 15.515	- / -	- / -	- / -	- / -	211 / 15.515
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	166 / 13.779	- / -	- / -	- / -	166 / 13.779
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	25 / 11.193	- / -	- / -	25 / 11.193
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	297 / 16.839	- / -	297 / 16.839
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	438 / 20.628	723 / 19.116	206 / 31.361	284 / 20.000	- / -	284 / 20.000	211 / 15.515	166 / 13.779	25 / 11.193	297 / 16.839	- / -	2,350 / 148.431

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	438	180	180	180	183	51	51	51	53	71	71	71	71	52	52	52	55	41	41	41	43	6	6	6	7	74	74	74	75	0	2,350
Out	438	180	180	180	183	51	51	51	53	71	71	71	71	52	52	52	55	41	41	41	43	6	6	6	7	74	74	74	75	0	2,350

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	6,362 / 397.072	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6,362 / 397.072

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 3 / Reliability and Maintainability Program
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 1 of 1: RAMMP Kits

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
FY 2017	- / -	797 / 40.697	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	797 / 40.697
FY 2018	- / -	- / -	374 / 78.442	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	374 / 78.442
FY 2019	- / -	- / -	- / -	521 / 47.210	- / -	521 / 47.210	- / -	- / -	- / -	- / -	- / -	521 / 47.210
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	392 / 32.081	- / -	- / -	- / -	- / -	392 / 32.081
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	311 / 27.933	- / -	- / -	- / -	311 / 27.933
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	53 / 21.460	- / -	- / -	53 / 21.460
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	550 / 35.139	- / -	550 / 35.139
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	6,362 / 397.072	797 / 40.697	374 / 78.442	521 / 47.210	- / -	521 / 47.210	392 / 32.081	311 / 27.933	53 / 21.460	550 / 35.139	- / -	9,360 / 680.034

Installation Schedule

		FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023					
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	6,362	199	199	199	200	93	93	93	95	130	130	130	131	98	98	98	98	77	77	77	80	13	13	13	14	137	137	137	139	0	9,360
Out	6,362	199	199	199	200	93	93	93	95	130	130	130	131	98	98	98	98	77	77	77	80	13	13	13	14	137	137	137	139	0	9,360

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 4 / Helmet Mounted Display and Cueing System (HMDCS)
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	0.000	0.000	0.000	-	0.000	0.000	0.000	12.900	16.969	0.000	29.869
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	0.000	0.000	-	0.000	0.000	0.000	12.900	16.969	0.000	29.869
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**0.000**	**0.000**	**-**	**0.000**	**0.000**	**0.000**	**12.900**	**16.969**	**0.000**	**29.869**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Helmet Mounted Display and Cueing System (HMDCS) program will fund the procurement and installation of Group A hardware 143 aircraft, Group B hardware for the cockpit, and pilot-worn Group C hardware (286 HMDCS). The Group A hardware will be integrated on block 30/35 F-22 aircraft.

The production will include one full HMDCS set for the trainers, and will begin in FY 2022.

Milestone/Development Status

Development is continuing, a request for proposal released in FY 2018.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	-	-	-	0.000	-	12.900	16.969
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**0.000**	**0.000**	**0.000**	**-**	**0.000**	**0.000**	**0.000**	**12.900**	**16.969**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 4 / Helmet Mounted Display and Cueing System (HMDCS)
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: F-22	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0207138F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Helmet												
B Kits												
Recurring												
Helmet:EQUIPMENT Group B (Active)	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	- / -	28 / 11.900	104 / 13.769	- / -	132 / 25.669
Subtotal: Recurring	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / -	- / 11.900	- / 13.769	- / -	- / 25.669
Subtotal: Helmet	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / -	- / 11.900	- / 13.769	- / -	- / 25.669
Subtotal: Procurement, All Modification Items	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / -	- / 11.900	- / 13.769	- / -	- / 25.669
Support *(All Modification Items)*												
OTHER GOVT	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 2.200	- / -	- / 2.200
Subtotal: Support	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 2.200	- / -	- / 2.200
Installation												
Modification Item 1 of 1: Helmet	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	28 / 1.000	104 / 1.000	- / -	132 / 2.000
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	28 / 1.000	104 / 1.000	- / -	132 / 2.000
Total												
Total Cost (Procurement + Support + Installation)	-	0.000	0.000	0.000	-	0.000	0.000	0.000	12.900	16.969	0.000	29.869

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 4 / Helmet Mounted Display and Cueing System (HMDCS)

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 1 of 1: Helmet

Manufacturer Information

Manufacturer Name: Undetermined

Manufacturer Location: Undetermined

Administrative Leadtime *(in Months)*: 5

Production Leadtime *(in Months)*: 6

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates						Mar 2022	Mar 2023
Delivery Dates						Sep 2022	Sep 2023

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	28 / 1.000	- / -	- / -	28 / 1.000
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	104 / 1.000	- / -	104 / 1.000
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	28 / 1.000	104 / 1.000	- / -	132 / 2.000

Installation Schedule

		FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023					
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	5	9	9	26	26	26	26	0	132
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	5	9	9	26	26	26	26	0	132

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 5 / TACLink 16
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	-	0.000	109.914	0.000	109.914	77.600	107.400	74.700	7.500	0.000	377.114
Less PY Advance Procurement *($ in Millions)*	-	-	-	15.000	-	15.000	-	-	-	-	-	15.000
Net Procurement (P-1) *($ in Millions)*	-	-	0.000	94.914	0.000	94.914	77.600	107.400	74.700	7.500	0.000	362.114
Plus CY Advance Procurement *($ in Millions)*	-	-	15.000	-	-	-	-	-	-	-	-	15.000
Total Obligation Authority *($ in Millions)*	**-**	**-**	**15.000**	**94.914**	**0.000**	**94.914**	**77.600**	**107.400**	**74.700**	**7.500**	**0.000**	**377.114**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The TACLink-16 program consists of software and hardware development necessary to field basic Link 16 Transmit capability on the Block 30/35 F-22 aircraft. Link 16 Transmit will be accomplished via an Open System Architecture (OSA) integrated with F-22 legacy avionics. TACLink 16 will begin fielding with Increment 3.2B installs in 3rd Quarter FY 2020 and continues through FY 2023. This program includes Mission Support Requirements and other government costs to include, but not limited to, support equipment, long-lead sets, and initial spares. Cost and schedule for the program is an estimate and will not be final until the program baseline is completed. Funds may be used to resolve emerging safety of flight and diminishing manufacturing sources issues, accommodate technology insertion and fulfill FAA or other mandates necessary to ensure continued aircrew safety and mission effectiveness.

Milestone/Development Status

TACLink 16 development began in FY 2016 and continues fielding through FY 2023. PDR completed in November 2017.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	15.000	94.914	-	94.914	77.600	107.400	74.700	7.500
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**-**	**15.000**	**94.914**	**0.000**	**94.914**	**77.600**	**107.400**	**74.700**	**7.500**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 5 / TACLink 16
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: F-22	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0207138F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: TACLink 16												
B Kits												
Recurring												
TACLink 16:EQUIPMENT Group B (Active)	- / -	- / -	- / -	43 / 87.548	- / -	43 / 87.548	30 / 61.080	45 / 91.620	25 / 50.900	0 / 0.000	- / -	143 / 291.148
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / 87.548*	*- / -*	*- / 87.548*	*- / 61.080*	*- / 91.620*	*- / 50.900*	*- / 0.000*	*- / -*	*- / 291.148*
Subtotal: TACLink 16	*- / -*	*- / -*	*- / -*	*- / 87.548*	*- / -*	*- / 87.548*	*- / 61.080*	*- / 91.620*	*- / 50.900*	*- / 0.000*	*- / -*	*- / 291.148*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / -*	*- / 87.548*	*- / -*	*- / 87.548*	*- / 61.080*	*- / 91.620*	*- / 50.900*	*- / 0.000*	*- / -*	*- / 291.148*
Support *(All Modification Items)*												
SUPPORT-EQUIP	- / -	- / -	- / -	- / 15.000	- / -	- / 15.000	- / -	- / -	- / -	- / -	- / -	- / 15.000
Change Orders	- / -	- / -	- / -	- / 4.378	- / -	- / 4.378	- / 3.522	- / 4.916	- / 3.047	- / 0.279	- / -	- / 16.142
OTHER GOVT	- / -	- / -	- / -	- / 2.988	- / -	- / 2.988	- / 3.632	- / 4.174	- / 10.718	- / 1.646	- / -	- / 23.158
Subtotal: Support	*- / -*	*- / -*	*- / -*	*- / 22.366*	*- / -*	*- / 22.366*	*- / 7.154*	*- / 9.090*	*- / 13.765*	*- / 1.925*	*- / -*	*- / 54.300*
Installation												
Modification Item 1 of 1: TACLink 16	- / -	- / -	- / -	- / -	- / -	- / -	22 / 9.366	37 / 6.690	37 / 10.035	35 / 5.575	12 / 0.000	143 / 31.666
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*22 / 9.366*	*37 / 6.690*	*37 / 10.035*	*35 / 5.575*	*12 / -*	*143 / 31.666*
Total												
Total Cost (Procurement + Support + Installation)	**-**	**-**	**0.000**	**109.914**	**0.000**	**109.914**	**77.600**	**107.400**	**74.700**	**7.500**	**0.000**	**377.114**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 5 / TACLink 16

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 1 of 1: TACLink 16

Manufacturer Information

Manufacturer Name: Lockheed Martin

Manufacturer Location: Ft. Worth, TX

Administrative Leadtime *(in Months)*: 1

Production Leadtime *(in Months)*: 13

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates			Jun 2019	Jun 2020	Jun 2021	Jun 2022	
Delivery Dates			Jul 2020	Jul 2021	Jul 2022	Jul 2023	

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	22 / 9.366	21 / 0.000	- / -	- / -	- / -	43 / 9.366
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 6.690	14 / 0.000	- / -	- / -	30 / 6.690
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	23 / 10.035	22 / 0.000	- / -	45 / 10.035
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	13 / 5.575	12 / 0.000	25 / 5.575
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	22 / 9.366	37 / 6.690	37 / 10.035	35 / 5.575	12 / 0.000	143 / 31.666

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	11	11	10	8	8	7	7	12	11	11	11	7	6	12	143
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	11	11	10	8	8	7	7	12	11	11	11	7	6	12	143

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 6 / F119 Engine Modifications
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	69.793	4.780	8.104	8.489	0.000	8.489	9.547	9.069	5.174	0.976	0.000	115.932
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	69.793	4.780	8.104	8.489	0.000	8.489	9.547	9.069	5.174	0.976	0.000	115.932
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**69.793**	**4.780**	**8.104**	**8.489**	**0.000**	**8.489**	**9.547**	**9.069**	**5.174**	**0.976**	**0.000**	**115.932**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This program includes F119 Engine modifications, depot labor, and the support equipment (SE) tooling required for F119 Engine upgrades to improve long-term engine sustainment. This program funds engine modifications for 186 aircraft and approximately 103 whole engine spares. Quantities reflect individual kit procurement and installation. Engine modifications are necessary to improve the safety, reliability, maintainability, sustainability, mission performance, and affordability of the F119 engine in order to achieve full life status of 8,650 Total Accumulated Cycles (TAC). Funds may be used to resolve emerging safety of flight and diminishing manufacturing sources issues, accommodate technology insertion and fulfill FAA or other mandates necessary to ensure continued aircrew safety and mission effectiveness. Engine depot inductions and inspections are funded through this program including depot and SE tooling for F119 Engine Parts to support F119 Engine depot modifications. Engines enter into depot induction, are inspected and when new issues are discovered, corrections are developed via the engine Component Improvement Program (CIP), PE 0207268F, and are implemented via modifications.

Induction inspections are based on TAC counts. The 2,300 TAC core inductions began in FY 2011 and continue through FY 2019; the 5th stage Integrally Bladed Rotor (IBR) is limited to 3,600 TAC depot induction started in CY 2014 and ended in CY 2018. The next phase of inductions will occur at 4,325 TACs, also known as half-life inspections. The 4,325 TAC inspections will refurbish the F119 Engine in order to achieve full life of 8,650 TACs. Inspections may generate maintenance and repair actions that require engine modifications. Kit installations are done either at the depot or by field teams depending on the complexity of the effort. F119 Engine Modifications includes Mission Support Requirement to include, but not be limited to, travel, computer costs, and other miscellaneous contract support.

Milestone/Development Status

Development accomplished via the Engine Component Improvement Program (CIP), PE 0207268F.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	4.059	6.746	7.109	-	7.109	8.086	7.676	4.258	0.804
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.721	1.358	1.380	-	1.380	1.461	1.393	0.916	0.172
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**4.780**	**8.104**	**8.489**	**0.000**	**8.489**	**9.547**	**9.069**	**5.174**	**0.976**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 6 / F119 Engine Modifications
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: F-22	**Modification Type:** Other	**Related RDT&E PEs:** 0207138F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Engine Modification Kits												
B Kits												
Recurring												
Engine Modification Kits:EQUIPMENT Group B (Active)	4,761 / 44.598	635 / 2.111	1,246 / 3.974	1,329 / 4.419	- / -	1,329 / 4.419	1,407 / 4.678	1,342 / 4.464	882 / 2.935	167 / 0.554	- / -	11,769 / 67.733
Engine Modification Kits:EQUIPMENT Group B (Guard)	953 / 5.141	112 / 0.372	160 / 0.701	170 / 0.567	- / -	170 / 0.567	180 / 0.600	172 / 0.571	113 / 0.376	21 / 0.070	- / -	1,881 / 8.398
Subtotal: Recurring	*- / 49.739*	*- / 2.483*	*- / 4.675*	*- / 4.986*	*- / -*	*- / 4.986*	*- / 5.278*	*- / 5.035*	*- / 3.311*	*- / 0.624*	*- / -*	*- / 76.131*
Subtotal: Engine Modification Kits	*- / 49.739*	*- / 2.483*	*- / 4.675*	*- / 4.986*	*- / -*	*- / 4.986*	*- / 5.278*	*- / 5.035*	*- / 3.311*	*- / 0.624*	*- / -*	*- / 76.131*
Subtotal: Procurement, All Modification Items	*- / 49.739*	*- / 2.483*	*- / 4.675*	*- / 4.986*	*- / -*	*- / 4.986*	*- / 5.278*	*- / 5.035*	*- / 3.311*	*- / 0.624*	*- / -*	*- / 76.131*
Support *(All Modification Items)*												
OTHER GOVT	- / 2.860	- / 0.900	- / 0.800	- / 0.700	- / -	- / 0.700	- / 1.300	- / 1.200	- / -	- / -	- / -	- / 7.760
Subtotal: Support	*- / 2.860*	*- / 0.900*	*- / 0.800*	*- / 0.700*	*- / -*	*- / 0.700*	*- / 1.300*	*- / 1.200*	*- / -*	*- / -*	*- / -*	*- / 7.760*
Installation												
Modification Item 1 of 1: Engine Modification Kits	3,519 / 17.194	2,195 / 1.397	747 / 2.629	1,406 / 2.803	- / -	1,406 / 2.803	1,499 / 2.969	1,587 / 2.834	1,514 / 1.863	995 / 0.352	188 / 0.000	13,650 / 32.041
Subtotal: Installation	*3,519 / 17.194*	*2,195 / 1.397*	*747 / 2.629*	*1,406 / 2.803*	*- / -*	*1,406 / 2.803*	*1,499 / 2.969*	*1,587 / 2.834*	*1,514 / 1.863*	*995 / 0.352*	*188 / -*	*13,650 / 32.041*
Total												
Total Cost (Procurement + Support + Installation)	**69.793**	**4.780**	**8.104**	**8.489**	**0.000**	**8.489**	**9.547**	**9.069**	**5.174**	**0.976**	**0.000**	**115.932**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 6 / F119 Engine Modifications
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 1 of 1: Engine Modification Kits

Manufacturer Information

Manufacturer Name: Pratt & Whitney	Manufacturer Location: East Hartford/Tinker AFB
Administrative Leadtime *(in Months)*: 3	Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Jan 2017	Jan 2018	Jan 2019	Jan 2020	Jan 2021	Jan 2022	Jan 2023
Delivery Dates	Jan 2018	Jan 2019	Jan 2020	Jan 2021	Jan 2022	Jan 2023	Jan 2024

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	509 / 2.278	649 / 0.210	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1,158 / 2.488
FY 2017	- / -	- / -	254 / 0.394	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	254 / 0.394
FY 2018	- / -	- / -	- / -	498 / 0.308	- / -	498 / 0.308	- / -	- / -	- / -	- / -	- / -	498 / 0.308
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	532 / 0.327	- / -	- / -	- / -	- / -	532 / 0.327
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	563 / 0.312	- / -	- / -	- / -	563 / 0.312
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	537 / 0.205	- / -	- / -	537 / 0.205
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	353 / 0.039	- / -	353 / 0.039
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	188 / 0.000	188 / 0.000
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	509 / 2.278	649 / 0.210	254 / 0.394	498 / 0.308	- / -	498 / 0.308	532 / 0.327	563 / 0.312	537 / 0.205	353 / 0.039	188 / 0.000	4,083 / 4.073

Installation Schedule

		FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023					
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	509	162	162	162	163	63	63	63	65	124	124	124	126	133	133	133	133	140	140	140	143	134	134	134	135	88	88	88	89	188	4,083
Out	509	162	162	162	163	63	63	63	65	124	124	124	126	133	133	133	133	140	140	140	143	134	134	134	135	88	88	88	89	188	4,083

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	3,010 / 14.916	1,546 / 1.187	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4,556 / 16.103

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 6 / F119 Engine Modifications
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 1 of 1: Engine Modification Kits

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
FY 2017	- / -	- / -	493 / 2.235	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	493 / 2.235
FY 2018	- / -	- / -	- / -	908 / 2.495	- / -	908 / 2.495	- / -	- / -	- / -	- / -	- / -	908 / 2.495
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	967 / 2.642	- / -	- / -	- / -	- / -	967 / 2.642
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1,024 / 2.522	- / -	- / -	- / -	1,024 / 2.522
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	977 / 1.658	- / -	- / -	977 / 1.658
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	642 / 0.313	- / -	642 / 0.313
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	0 / 0.000
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	3,010 / 14.916	1,546 / 1.187	493 / 2.235	908 / 2.495	- / -	908 / 2.495	967 / 2.642	1,024 / 2.522	977 / 1.658	642 / 0.313	0 / 0.000	9,567 / 27.968

Installation Schedule

		FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023					
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	3,010	386	386	387	387	123	123	123	124	227	227	227	227	241	241	241	244	256	256	256	256	244	244	244	245	160	160	160	162	0	9,567
Out	3,010	386	386	387	387	123	123	123	124	227	227	227	227	241	241	241	244	256	256	256	256	244	244	244	245	160	160	160	162	0	9,567

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 7 / Structures Retrofit Plan
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	248.991	14.598	10.689	9.073	0.000	9.073	2.218	0.000	0.000	0.000	0.000	285.569
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	248.991	14.598	10.689	9.073	0.000	9.073	2.218	0.000	0.000	0.000	0.000	285.569
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**248.991**	**14.598**	**10.689**	**9.073**	**0.000**	**9.073**	**2.218**	**0.000**	**0.000**	**0.000**	**0.000**	**285.569**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Structures Retrofit Program (SRP) is designed to retrofit F-22 aircraft with the structural improvements required to reach full service life. SRP I completed in FY2014 and brought the F-22's service life to 2,000 hours. The current program (SRP II) is designed to extend the entire fleet to 8,000 hours per aircraft. The number of aircraft in this exhibit (166) is not reflective of the total fleet due to SRP kits being installed while the last two lots of aircraft were in production. Additionally, kit buys and their corresponding installs will not always match by fiscal year due to schedule changes in depot work flow. Kit installation quantities and costs are shown for modifications performed at the depot level only. SRP II includes Mission Support Requirements.

Installations will be complete in FY 2020.

Milestone/Development Status

Development complete.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	13.275	9.133	6.101	-	6.101	1.259	-	-	-
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	1.323	1.556	2.972	-	2.972	0.959	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**14.598**	**10.689**	**9.073**	**0.000**	**9.073**	**2.218**	**0.000**	**0.000**	**0.000**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 7 / Structures Retrofit Plan
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: F-22	**Modification Type:** Service Life Extension	**Related RDT&E PEs:** 0207138F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Structure Retrofit Plan												
A Kits												
Recurring												
Structure Retrofit Plan:INSTALL KITS Group A (Active)	133 / 55.716	6 / 1.755	- / -	2 / 1.380	- / -	2 / 1.380	- / -	- / -	- / -	- / -	- / -	141 / 58.851
Structure Retrofit Plan:INSTALL KITS Group A (Guard)	5 / 1.045	7 / 1.323	13 / 1.556	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	25 / 3.924
Subtotal: Recurring	*- / 56.761*	*- / 3.078*	*- / 1.556*	*- / 1.380*	*- / -*	*- / 1.380*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 62.775*
Subtotal: Structure Retrofit Plan	*- / 56.761*	*- / 3.078*	*- / 1.556*	*- / 1.380*	*- / -*	*- / 1.380*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 62.775*
Subtotal: Procurement, All Modification Items	*- / 56.761*	*- / 3.078*	*- / 1.556*	*- / 1.380*	*- / -*	*- / 1.380*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 62.775*
Support *(All Modification Items)*												
OTHER GOVT	- / 3.049	- / 1.098	- / 0.867	- / 0.264	- / -	- / 0.264	- / 0.300	- / -	- / -	- / -	- / -	- / 5.578
Subtotal: Support	*- / 3.049*	*- / 1.098*	*- / 0.867*	*- / 0.264*	*- / -*	*- / 0.264*	*- / 0.300*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 5.578*
Installation												
Modification Item 1 of 1: Structure Retrofit Plan	101 / 189.181	16 / 10.422	13 / 8.266	24 / 7.429	- / -	24 / 7.429	12 / 1.918	- / -	- / -	- / -	- / -	166 / 217.216
Subtotal: Installation	*101 / 189.181*	*16 / 10.422*	*13 / 8.266*	*24 / 7.429*	*- / -*	*24 / 7.429*	*12 / 1.918*	*- / -*	*- / -*	*- / -*	*- / -*	*166 / 217.216*
Total												
Total Cost (Procurement + Support + Installation)	**248.991**	**14.598**	**10.689**	**9.073**	**0.000**	**9.073**	**2.218**	**0.000**	**0.000**	**0.000**	**0.000**	**285.569**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 7 / Structures Retrofit Plan

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 1 of 1: Structure Retrofit Plan

Manufacturer Information

Manufacturer Name: Lockheed Martin

Manufacturer Location: Palmdale/Hill AFB

Administrative Leadtime *(in Months)*: 3

Production Leadtime *(in Months)*: 0

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Jan 2017	Jan 2018	Jan 2019				
Delivery Dates	Jan 2017	Jan 2018	Jan 2019				

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	101 / 189.181	16 / 10.422	13 / 8.266	8 / 3.566	- / -	8 / 3.566	- / -	- / -	- / -	- / -	- / -	138 / 211.435
FY 2017	- / -	- / -	- / -	9 / 2.377	- / -	9 / 2.377	4 / 0.639	- / -	- / -	- / -	- / -	13 / 3.016
FY 2018	- / -	- / -	- / -	7 / 1.486	- / -	7 / 1.486	6 / 0.959	- / -	- / -	- / -	- / -	13 / 2.445
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.320	- / -	- / -	- / -	- / -	2 / 0.320
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	101 / 189.181	16 / 10.422	13 / 8.266	24 / 7.429	- / -	24 / 7.429	12 / 1.918	- / -	- / -	- / -	- / -	166 / 217.216

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	101	4	4	4	4	4	3	4	2	6	6	6	6	3	3	3	3	0	0	0	0	-	-	-	-	-	-	-	-	0	166
Out	94	7	3	3	3	2	5	5	5	3	4	4	4	8	5	7	4	-	-	-	-	-	-	-	-	-	-	-	-	0	166

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 8 / Trainers Modernization
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	84.543	4.067	9.215	12.329	0.000	12.329	11.920	14.492	15.607	16.025	0.000	168.198
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	84.543	4.067	9.215	12.329	0.000	12.329	11.920	14.492	15.607	16.025	0.000	168.198
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**84.543**	**4.067**	**9.215**	**12.329**	**0.000**	**12.329**	**11.920**	**14.492**	**15.607**	**16.025**	**0.000**	**168.198**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This effort modifies training devices to simulate existing and future F-22 operational capabilities and maintain concurrency with the aircraft configuration. The modifications enable 4-ship Mission Training Centers (MTC), Weapons and Tactics Trainers (WTT), and Maintenance Training Devices (MTD) to provide realistic training. Modifications also include reliability, availability, and maintainability improvements. The actual quantity of trainers being modified will be determined at the annual Pilot and Maintenance Training Working Group meetings chaired by ACC. There will be 45 Pilot Training Devices beginning in CY 2019 and 26 Maintenance Training Devices for a total of 71 trainers. Modifications are done by contractor field teams.

Trainers Modernization includes mission support requirements for the F-22 program office to include, but not be limited to travel, computer costs, and other miscellaneous contract support.

Milestone/Development Status

Development conducted in conjunction with ongoing modernization activities and Ready Aircrew Program taskings.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	4.067	9.215	12.329	-	12.329	11.920	14.492	15.607	16.025
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**4.067**	**9.215**	**12.329**	**0.000**	**12.329**	**11.920**	**14.492**	**15.607**	**16.025**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 8 / Trainers Modernization
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: F-22	**Modification Type:** Safety	**Related RDT&E PEs:** 0207138F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Trainer Modifications												
B Kits												
Recurring												
Trainer Modifications:EQUIPMENT Group B (Active)	82 / 59.165	10 / 3.483	10 / 8.158	10 / 11.137	- / -	10 / 11.137	10 / 10.696	10 / 13.225	10 / 14.441	10 / 14.835	- / -	152 / 135.140
Subtotal: Recurring	*- / 59.165*	*- / 3.483*	*- / 8.158*	*- / 11.137*	*- / -*	*- / 11.137*	*- / 10.696*	*- / 13.225*	*- / 14.441*	*- / 14.835*	*- / -*	*- / 135.140*
Subtotal: Trainer Modifications	*- / 59.165*	*- / 3.483*	*- / 8.158*	*- / 11.137*	*- / -*	*- / 11.137*	*- / 10.696*	*- / 13.225*	*- / 14.441*	*- / 14.835*	*- / -*	*- / 135.140*
Subtotal: Procurement, All Modification Items	*- / 59.165*	*- / 3.483*	*- / 8.158*	*- / 11.137*	*- / -*	*- / 11.137*	*- / 10.696*	*- / 13.225*	*- / 14.441*	*- / 14.835*	*- / -*	*- / 135.140*
Support *(All Modification Items)*												
OTHER GOVT	- / 2.227	- / 0.197	- / 0.153	- / 0.119	- / -	- / 0.119	- / 0.121	- / 0.133	- / -	- / -	- / -	- / 2.950
Subtotal: Support	*- / 2.227*	*- / 0.197*	*- / 0.153*	*- / 0.119*	*- / -*	*- / 0.119*	*- / 0.121*	*- / 0.133*	*- / -*	*- / -*	*- / -*	*- / 2.950*
Installation												
Modification Item 1 of 1: Trainer Modifications	82 / 23.151	10 / 0.387	10 / 0.904	10 / 1.073	- / -	10 / 1.073	10 / 1.103	10 / 1.134	10 / 1.166	10 / 1.190	- / -	152 / 30.108
Subtotal: Installation	*82 / 23.151*	*10 / 0.387*	*10 / 0.904*	*10 / 1.073*	*- / -*	*10 / 1.073*	*10 / 1.103*	*10 / 1.134*	*10 / 1.166*	*10 / 1.190*	*- / -*	*152 / 30.108*
Total												
Total Cost (Procurement + Support + Installation)	**84.543**	**4.067**	**9.215**	**12.329**	**0.000**	**12.329**	**11.920**	**14.492**	**15.607**	**16.025**	**0.000**	**168.198**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 8 / Trainers Modernization
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 1 of 1: Trainer Modifications

Manufacturer Information

Manufacturer Name: Lockheed Martin	Manufacturer Location: Palmdale/Hill AFB
Administrative Leadtime *(in Months)*: 3	Production Leadtime *(in Months)*: 0

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Jan 2017	Jan 2018	Jan 2019	Jan 2020	Jan 2021	Jan 2022	Jan 2023
Delivery Dates	Jan 2017	Jan 2018	Jan 2019	Jan 2020	Jan 2021	Jan 2022	Jan 2023

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	82 / 23.151	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	82 / 23.151
FY 2017	- / -	10 / 0.387	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 0.387
FY 2018	- / -	- / -	10 / 0.904	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 0.904
FY 2019	- / -	- / -	- / -	10 / 1.073	- / -	10 / 1.073	- / -	- / -	- / -	- / -	- / -	10 / 1.073
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	10 / 1.103	- / -	- / -	- / -	- / -	10 / 1.103
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 1.134	- / -	- / -	- / -	10 / 1.134
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 1.166	- / -	- / -	10 / 1.166
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 1.190	- / -	10 / 1.190
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	82 / 23.151	10 / 0.387	10 / 0.904	10 / 1.073	- / -	10 / 1.073	10 / 1.103	10 / 1.134	10 / 1.166	10 / 1.190	- / -	152 / 30.108

Installation Schedule

		FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023					
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	82	2	2	2	4	2	2	2	4	-	4	2	4	2	2	3	3	2	2	3	3	2	2	3	3	2	2	3	3	0	152
Out	82	2	2	2	4	2	2	2	4	-	4	2	4	2	2	3	3	2	2	3	3	2	2	3	3	2	2	3	3	0	152

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 9 / Crypto Modernization
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	3.704	0.000	0.000	0.760	0.000	0.760	3.530	2.540	0.000	0.000	0.000	10.534
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	3.704	0.000	0.000	0.760	0.000	0.760	3.530	2.540	0.000	0.000	0.000	10.534
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**3.704**	**0.000**	**0.000**	**0.760**	**0.000**	**0.760**	**3.530**	**2.540**	**0.000**	**0.000**	**0.000**	**10.534**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This program, P-3A Mod F22027, Crypto Modernization, is a new start.
Funding for the Crypto Modernization procurement begins in FY 2019 and will upgrade and install KOV-20/KSR-60 cryptographic module firmware on the F-22 fleet. Kit installation will be completed by contract field teams beginning in FY 2019.

Quantities include 5 kits per aircraft and the necessary modifications to the existing rotatable pool of spares in inventory.

Milestone/Development Status

Development of the KOV-20/KSR module is ongoing and will complete as part of Update 6 interoperability.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	0.760	-	0.760	3.530	2.540	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**0.000**	**0.000**	**0.760**	**0.000**	**0.760**	**3.530**	**2.540**	**0.000**	**0.000**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 9 / Crypto Modernization
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: F-22	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0207138F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Crypto Modification												
A Kits												
Recurring												
Crypto Modification:INSTALL KITS Group A (Active)	720 / 0.753	- / -	- / -	180 / 0.158	- / -	180 / 0.158	719 / 0.853	180 / 0.475	- / -	- / -	- / -	1,799 / 2.239
Crypto Modification:INSTALL KITS Group A (Guard)	100 / 0.029	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	100 / 0.029
Subtotal: Recurring	*- / 0.782*	*- / -*	*- / -*	*- / 0.158*	*- / -*	*- / 0.158*	*- / 0.853*	*- / 0.475*	*- / -*	*- / -*	*- / -*	*- / 2.268*
Subtotal: Crypto Modification	*- / 0.782*	*- / -*	*- / -*	*- / 0.158*	*- / -*	*- / 0.158*	*- / 0.853*	*- / 0.475*	*- / -*	*- / -*	*- / -*	*- / 2.268*
Subtotal: Procurement, All Modification Items	*- / 0.782*	*- / -*	*- / -*	*- / 0.158*	*- / -*	*- / 0.158*	*- / 0.853*	*- / 0.475*	*- / -*	*- / -*	*- / -*	*- / 2.268*
Support *(All Modification Items)*												
OTHER GOVT	- / 0.048	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.048
Subtotal: Support	*- / 0.048*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.048*
Installation												
Modification Item 1 of 1: Crypto Modification	820 / 2.874	- / -	- / -	180 / 0.602	- / -	180 / 0.602	719 / 2.677	180 / 2.065	- / -	- / -	- / -	1,899 / 8.218
Subtotal: Installation	*820 / 2.874*	*- / -*	*- / -*	*180 / 0.602*	*- / -*	*180 / 0.602*	*719 / 2.677*	*180 / 2.065*	*- / -*	*- / -*	*- / -*	*1,899 / 8.218*
Total												
Total Cost (Procurement + Support + Installation)	**3.704**	**0.000**	**0.000**	**0.760**	**0.000**	**0.760**	**3.530**	**2.540**	**0.000**	**0.000**	**0.000**	**10.534**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 9 / Crypto Modernization
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 1 of 1: Crypto Modification

Manufacturer Information

Manufacturer Name: Undetermined	Manufacturer Location: Undetermined
Administrative Leadtime *(in Months)*: 4	Production Leadtime *(in Months)*: 2

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates			Feb 2019	Feb 2020	Feb 2021		
Delivery Dates			Apr 2019	Apr 2020	Apr 2021		

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	820 / 2.874	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	820 / 2.874
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	180 / 0.602	- / -	180 / 0.602	- / -	- / -	- / -	- / -	- / -	180 / 0.602
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	719 / 2.677	- / -	- / -	- / -	- / -	719 / 2.677
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	180 / 2.065	- / -	- / -	- / -	180 / 2.065
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	820 / 2.874	- / -	- / -	180 / 0.602	- / -	180 / 0.602	719 / 2.677	180 / 2.065	- / -	- / -	- / -	1,899 / 8.218

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	820	-	-	-	-	-	-	-	-	-	-	90	90	-	-	359	360	-	-	90	90	-	-	-	-	-	-	-	-	0	1,899
Out	820	-	-	-	-	-	-	-	-	-	-	90	90	-	-	359	360	-	-	90	90	-	-	-	-	-	-	-	-	0	1,899

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 10 / Tactical Mandates
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	-	-	20.000	0.000	20.000	0.000	34.800	35.900	31.900	0.000	122.600
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	-	20.000	0.000	20.000	0.000	34.800	35.900	31.900	0.000	122.600
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**-**	**20.000**	**0.000**	**20.000**	**0.000**	**34.800**	**35.900**	**31.900**	**0.000**	**122.600**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This program, P-3A Mod F22030, Tactical Mandates, is a new start.
F-22 Tactical Mandates consists of software and hardware necessary to provide the mandated tactical capability for Mode 5 Identification Friend or Foe (IFF) Transpond/Interrogate. The program also provides an opportunity to incorporate other updates to Link 16 capabilities not incorporated under the TACLink 16 program. The mandate for Mode 5 is required by the Joint Requirements Oversight Council (JROC).
F-22 Tactical Mandates will begin fielding in 2nd quarter FY 2022 and continue through to the 4th quarter FY 2024. This program includes Mission Support Requirements and other government costs to include, but not limited to, support equipment and initial spares.

The pre-Engineering & Manufacturing Development (EMD) contract was awarded on 19 May 2016. Cost and schedule for the program is an estimate and will not be final until the program baseline is completed.

Funds may be used to resolve emerging safety of flight and diminishing manufacturing sources issues, accommodate technology insertion and fulfill FAA or other mandates necessary to ensure continued aircrew safety and mission effectiveness.

Milestone/Development Status

F-22 Tactical Mandates development began in FY 2015 and continues fielding through FY 2024.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	20.000	-	20.000	-	34.800	35.900	31.900
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**-**	**-**	**20.000**	**0.000**	**20.000**	**0.000**	**34.800**	**35.900**	**31.900**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 10 / Tactical Mandates
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: F-22	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0207138F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: F-22 Tactical Mandates Kits												
B Kits												
Recurring												
F-22 Tactical Mandates Kits:EQUIPMENT Group B (Active)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	42 / 32.800	69 / 35.700	32 / 27.200	- / -	143 / 95.700
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 32.800*	*- / 35.700*	*- / 27.200*	*- / -*	*- / 95.700*
Subtotal: F-22 Tactical Mandates Kits	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 32.800*	*- / 35.700*	*- / 27.200*	*- / -*	*- / 95.700*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 32.800*	*- / 35.700*	*- / 27.200*	*- / -*	*- / 95.700*
Support *(All Modification Items)*												
SUPPORT-EQUIP	- / -	- / -	- / -	- / 20.000	- / -	- / 20.000	- / -	- / -	- / -	- / -	- / -	- / 20.000
OTHER GOVT	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.000	- / -	- / 1.800	- / -	- / 3.800
Subtotal: Support	*- / -*	*- / -*	*- / -*	*- / 20.000*	*- / -*	*- / 20.000*	*- / -*	*- / 2.000*	*- / -*	*- / 1.800*	*- / -*	*- / 23.800*
Installation												
Modification Item 1 of 1: F-22 Tactical Mandates Kits	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	42 / 0.200	69 / 2.900	32 / 0.000	143 / 3.100
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.000*	*42 / 0.200*	*69 / 2.900*	*32 / -*	*143 / 3.100*
Total												
Total Cost (Procurement + Support + Installation)	**-**	**-**	**-**	**20.000**	**0.000**	**20.000**	**0.000**	**34.800**	**35.900**	**31.900**	**0.000**	**122.600**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 10 / Tactical Mandates
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 1 of 1: F-22 Tactical Mandates Kits

Manufacturer Information

Manufacturer Name: Lockheed Martin	Manufacturer Location: Fort Worth, TX
Administrative Leadtime *(in Months)*: 5	Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates					Mar 2021	Mar 2022	Mar 2023
Delivery Dates					Mar 2022	Mar 2023	Mar 2024

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	42 / 0.200	- / -	- / -	42 / 0.200
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	69 / 2.900	- / -	69 / 2.900
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	32 / 0.000	32 / 0.000
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	42 / 0.200	69 / 2.900	32 / 0.000	143 / 3.100

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	15	15	17	17	17	18	32	143
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	15	15	17	17	17	18	32	143

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 11 / Mid-Life Updates
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	3,755.420	3,755.420
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	3,755.420	3,755.420
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**0.000**	**0.000**	**-**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**3,755.420**	**3,755.420**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Mid-Life Updates represents future procurement of hardware and software capability enhancements to include a radar upgrade. The program will include contracted work, direct lab, CTF execution and Mission Support.

The program will procure 143 kits.

Milestone/Development Status

Development efforts to begin in FY 2021. Production costs represent a future estimate.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 11 / Mid-Life Updates
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: F-22	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0207138F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0207138F	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.800	- / 122.500	- / -	- / -	- / 128.300
Procurement												
Modification Item 1 of 1: Mid-Life Updates												
A Kits												
Recurring												
Mid-Life Updates:INSTALL KITS Group A (Active)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	143 / 3,755.420	143 / 3,755.420
Subtotal: Recurring	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3,755.420	- / 3,755.420
Subtotal: Mid-Life Updates	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3,755.420	- / 3,755.420
Subtotal: Procurement, All Modification Items	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3,755.420	- / 3,755.420
Installation												
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total												
Total Cost (Procurement + Support + Installation)	**-**	**0.000**	**0.000**	**0.000**	**-**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**3,755.420**	**3,755.420**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 11 / Mid-Life Updates

ID Code (A=Service Ready, B=Not Service Ready) : B | **MDAP/MAIS Code:**

Modification Item 1 of 1: Mid-Life Updates

Manufacturer Information

Manufacturer Name: TBD	Manufacturer Location: TBD
Administrative Leadtime *(in Months)*: 2	Production Leadtime *(in Months)*: 24

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation (Organic): Org/Intermediate	**Installation Quantity:** 143

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 12 / Sensor Enhancement
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	0.000	0.000	0.000	-	0.000	66.610	84.647	141.014	257.091	414.360	963.722
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	0.000	0.000	-	0.000	66.610	84.647	141.014	257.091	414.360	963.722
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**0.000**	**0.000**	**-**	**0.000**	**66.610**	**84.647**	**141.014**	**257.091**	**414.360**	**963.722**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Sensor Enhancements provides improved sensor capabilities to Block 30/35 F-22 aircraft to maintain air dominance and preserve first shot, first kill capability. The Procurement funding includes 143 kits, installation and spares.

Milestone/Development Status

Development Efforts are under way on the Sensor Enhancements. Proposal preparation activities for the RDT&E and Preliminary Design Review (PDR) begin in FY 2019, with a planned Milestone B in FY 2020.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	-	-	-	66.610	84.647	141.014	257.091
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**0.000**	**0.000**	**0.000**	**-**	**0.000**	**66.610**	**84.647**	**141.014**	**257.091**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 12 / Sensor Enhancement
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: F-22	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0207138F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0207138F	- / -	- / -	- / -	- / -	- / -	- / -	- / 91.050	- / -	- / -	- / -	- / -	- / 91.050
Procurement												
Modification Item 1 of 1: Sensor Enhancements												
B Kits												
Recurring												
Sensor Enhancements:EQUIPMENT Group B (Active)	- / -	- / -	- / -	- / -	- / -	- / -	12 / 50.179	12 / 70.482	24 / 117.815	36 / 211.667	59 / 385.090	143 / 835.233
Subtotal: Recurring	- / -	- / -	- / -	- / -	- / -	- / -	- / 50.179	- / 70.482	- / 117.815	- / 211.667	- / 385.090	- / 835.233
Subtotal: Sensor Enhancements	- / -	- / -	- / -	- / -	- / -	- / -	- / 50.179	- / 70.482	- / 117.815	- / 211.667	- / 385.090	- / 835.233
Subtotal: Procurement, All Modification Items	- / -	- / -	- / -	- / -	- / -	- / -	- / 50.179	- / 70.482	- / 117.815	- / 211.667	- / 385.090	- / 835.233
Support *(All Modification Items)*												
OTHER GOVT	- / -	- / -	- / -	- / -	- / -	- / -	- / 16.431	- / 14.165	- / 19.889	- / 42.024	- / -	- / 92.509
Subtotal: Support	- / -	- / -	- / -	- / -	- / -	- / -	- / 16.431	- / 14.165	- / 19.889	- / 42.024	- / -	- / 92.509
Installation												
Modification Item 1 of 1: Sensor Enhancements	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 3.310	12 / 3.400	119 / 29.270	143 / 35.980
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 3.310	12 / 3.400	119 / 29.270	143 / 35.980
Total												
Total Cost (Procurement + Support + Installation)	-	0.000	0.000	0.000	-	0.000	66.610	84.647	141.014	257.091	414.360	963.722

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 12 / Sensor Enhancement
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 1: Sensor Enhancements

Manufacturer Information

Manufacturer Name: Lockheed Martin	Manufacturer Location: Ft. Worth, TX
Administrative Leadtime *(in Months)*: 2	Production Leadtime *(in Months)*: 22

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates				Dec 2019	Dec 2020	Dec 2021	Dec 2022
Delivery Dates				Oct 2021	Oct 2022	Oct 2023	Oct 2024

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 3.310	- / -	- / -	12 / 3.310
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 3.400	- / -	12 / 3.400
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 5.820	24 / 5.820
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	36 / 8.800	36 / 8.800
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	59 / 14.650	59 / 14.650
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 3.310	12 / 3.400	119 / 29.270	143 / 35.980

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	3	3	3	3	3	3	119	143
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	3	3	3	3	3	3	119	143

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 13 / M-Code
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	0.000	0.000	0.000	-	0.000	0.000	0.000	35.600	13.418	391.000	440.018
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	0.000	0.000	-	0.000	0.000	0.000	35.600	13.418	391.000	440.018
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**0.000**	**0.000**	**-**	**0.000**	**0.000**	**0.000**	**35.600**	**13.418**	**391.000**	**440.018**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The F-22 Global Positioning System (GPS) Military Code (M-Code) program consists of the software and hardware development, test and fielding necessary to ensure the F-22's ability to maintain Precision, Navigation and Timing (PNT) capabilities in GPS degraded environments. This effort will include the integration of Embedded GPS/Inertial Navigation System (INS) Modernization (EGI-M) onto the F-22 for M-code-associated GPS enhancements, as well as other capabilities, to prevent exploitation of the weapon system by adversaries and provide assured PNT. Antennas and the EGI-M retrofit will be accomplished incrementally. The M-code program procurement funding is for production of 183 antenna retrofit kits and 177 EGI-M retrofit kits.

Milestone/Development Status

Development is expected to begin in FY2018 and end in FY2023.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	-	-	-	-	0.000	35.600	13.418
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**0.000**	**0.000**	**0.000**	**-**	**0.000**	**0.000**	**0.000**	**35.600**	**13.418**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	P-1 Line Item Number / Title: F02200 / F-22A	Modification Number / Title: 13 / M-Code
ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:	
Models of Systems Affected: F-22	Modification Type: Reliability & Maintainability	Related RDT&E PEs: 0207138F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: M-Code												
B Kits												
Recurring												
M-Code:EQUIPMENT Group B (Active)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	170 / 35.600	52 / 10.418	- / 391.000	222 / 437.018
Subtotal: Recurring	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 35.600	- / 10.418	- / 391.000	- / 437.018
Subtotal: M-Code	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 35.600	- / 10.418	- / 391.000	- / 437.018
Subtotal: Procurement, All Modification Items	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 35.600	- / 10.418	- / 391.000	- / 437.018
Installation												
Modification Item 1 of 1: M-Code	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	- / -	170 / 3.000	52 / 0.000	222 / 3.000
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / -	- / -	170 / 3.000	52 / -	222 / 3.000
Total												
Total Cost (Procurement + Support + Installation)	**-**	**0.000**	**0.000**	**0.000**	**-**	**0.000**	**0.000**	**0.000**	**35.600**	**13.418**	**391.000**	**440.018**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 13 / M-Code
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 1 of 1: M-Code

Manufacturer Information

Manufacturer Name: TBD	Manufacturer Location: TBD
Administrative Leadtime *(in Months)*: 5	Production Leadtime *(in Months)*: 6

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates						Mar 2022	Mar 2023
Delivery Dates						Sep 2022	Sep 2023

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	- / -	- / -	- / -	0 / 0.000
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	170 / 3.000	- / -	170 / 3.000
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	52 / 0.000	52 / 0.000
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	0 / 0.000
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	- / -	170 / 3.000	52 / 0.000	222 / 3.000

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	0	0	0	0	43	43	42	42	52	222
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	0	0	0	0	43	43	42	42	52	222

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 14 / Pylon
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	30.630	0.000	30.630
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	30.630	0.000	30.630
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**0.000**	**0.000**	**-**	**0.000**	**0.000**	**0.000**	**0.000**	**30.630**	**0.000**	**30.630**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The pylon program will integrate, test and field a modified pylon assembly by retrofitting existing pylon assets and procuring fuel tank fairing kits to mate baseline fuel tanks to modified pylons. The modified pylons will provide increased range, loiter time, and survivability due to improved aerodynamics.

Milestone/Development Status

Development began in FY2016, under PE 0207128F.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	-	-	-	-	-	-	30.630
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**0.000**	**0.000**	**0.000**	**-**	**0.000**	**0.000**	**0.000**	**0.000**	**30.630**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	P-1 Line Item Number / Title: F02200 / F-22A	Modification Number / Title: 14 / Pylon
ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:	
Models of Systems Affected: F-22	Modification Type: Capability Improvement	Related RDT&E PEs: 0207138F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0207138F	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.230	- / -	- / -	- / -	- / -	- / 4.230
Procurement												
Modification Item 1 of 1: Pylons												
B Kits												
Recurring												
Pylons:EQUIPMENT Group B (Active)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	80 / 25.630	- / -	80 / 25.630
Subtotal: Recurring	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 25.630	- / -	- / 25.630
Subtotal: Pylons	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 25.630	- / -	- / 25.630
Subtotal: Procurement, All Modification Items	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 25.630	- / -	- / 25.630
Installation												
Modification Item 1 of 1: Pylons	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	80 / 5.000	- / -	80 / 5.000
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	80 / 5.000	- / -	80 / 5.000
Total												
Total Cost (Procurement + Support + Installation)	**-**	**0.000**	**0.000**	**0.000**	**-**	**0.000**	**0.000**	**0.000**	**0.000**	**30.630**	**0.000**	**30.630**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**Modification Number / Title:** 14 / Pylon
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 1: Pylons

Manufacturer Information

Manufacturer Name: Lockheed Martin	Manufacturer Location: Ft. Worth, TX
Administrative Leadtime *(in Months)*: 1	Production Leadtime *(in Months)*: 6

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							Nov 2022
Delivery Dates							May 2023

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	80 / 5.000	- / -	80 / 5.000
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	80 / 5.000	- / -	80 / 5.000

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	20	40	0	80
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	20	40	0	80

Exhibit P-40, Advance Procurement Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft	**P-1 Line Item Number / Title:** F02200 / F-22A
Program Elements for Code B Items: 0207138F	**Other Related Program Elements:** 0207138F
Line Item MDAP/MAIS Code: 265	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Gross/Weapon System Cost *($ in Millions)*	-	-	15.000	-	-	-	-	-	-	-	-	15.000
Net Procurement (P-1) *($ in Millions)*	-	-	15.000	-	-	-	-	-	-	-	-	15.000
Total Obligation Authority *($ in Millions)*	**-**	**-**	**15.000**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**15.000**

Description:

The TACLink-16 program accelerates fielding of key technologies previously aligned under the F-22 Tactical Mandates (TACMAN) program. FY 2018 Advance Procurement for TACLink 16 procures long lead materials associated with the production and deployment of the TacLink 16 program. The funds will procure specialized equipment to include benches, racks, trays, processors as well as titanium to support the group A installation of Polyalphaolefin (PAO) manifolds. TackLink 16 installation is currently projected to begin in FY 2021 and will retrofit 142 aircraft.

Exhibit P-40, Advance Procurement Budget Line Item Justification: PB 2019 Air Force	**Date:** February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft	**P-1 Line Item Number / Title:** F02200 / F-22A
Program Elements for Code B Items: 0207138F	**Other Related Program Elements:** 0207138F
Line Item MDAP/MAIS Code: 265	

Exhibits Schedule				Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-10	5 / TACLink 16			- / -	- / -	- / 15.000	- / -	- / -	- / -
P-40	**Total Gross/Weapon System Cost**			**- / -**	**- / -**	**- / 15.000**	**- / -**	**- / -**	**- / -**

Exhibits Schedule				FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-10	5 / TACLink 16			- / -	- / -	- / -	- / -	- / -	- / 15.000
P-40	**Total Gross/Weapon System Cost**			**- / -**	**- / -**	**- / -**	**- / -**	**- / -**	**- / 15.000**

*Title represents the P-10 Title for Advance Procurement.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Advance procurement prevents a 16-24 month delay to start kit production and deployment, with titanium being the longest lead item. TAClink 16 is a new start.

Exhibit P-10, Advance Procurement Requirements Analysis (*page 1 - Budget Funding Justification*): PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**P-3a Number / Title:** 5 / TACLink 16

First System (2019) Award Date:	First System (2019) Completion Date:	Interval Between Systems:
November 2017	July 2018	6 Months

TACLink 16	Production Leadtime (Months)	Prior Years (Each)	FY 2017 (Each)	FY 2018 (Each)	FY 2019 (Each)	FY 2020 (Each)	FY 2021 (Each)	FY 2022 (Each)	FY 2023 (Each)	To Complete (Each)	Total (Each)
Quantity	24	-	-	-	-	-	-	-	-	-	-

Cost Elements	When Required (Months)	Prior Years ($ M)	FY 2017 ($ M)	FY 2018 ($ M)	FY 2019 ($ M)	FY 2020 ($ M)	FY 2021 ($ M)	FY 2022 ($ M)	FY 2023 ($ M)	To Complete ($ M)	Total ($ M)
CFE											
Equipment: Support Equipment	12	-	0.000	15.000	0.000	0.000	0.000	0.000	-	-	15.000
Total: CFE		*-*	*0.000*	*15.000*	*0.000*	*0.000*	*0.000*	*0.000*	*-*	*-*	*15.000*
Total Advance Procurement/Obligation Authority		**-**	**-**	**15.000**	**-**	**-**	**-**	**-**	**-**	**-**	**15.000**

Exhibit P-10, Advance Procurement Requirements Analysis (*page 2 - Budget Funding Justification*): PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F02200 / F-22A	**P-3a Number / Title:** 5 / TACLink 16

Cost Elements	QPA (Each)	FY 2019 Production Leadtime (Months)	Unit Cost ($ M)	Contract Forecast Date	2019 Qty (Each)	For FY	Total Cost Request ($ M)
CFE							
Equipment: Support Equipment	-	12	15.000	Nov 2017	0		0.000
Total: CFE							*0.000*
Total Advance Procurement/Obligation Authority							**-**

Description:
FY 2018 Advance Procurement for TACLink 16 procures long lead materials associated with the production and deployment of the TacLink 16 program. The funds will procure specialized support equipment to include benches, racks, trays, processors as well as titanium to support the group A installation of Polyalphaolefin (PAO) manifolds. TackLink 16 installation is currently projected to begin in FY 2021 and will retrofit 143 aircraft.

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft	**P-1 Line Item Number / Title:** F03500 / F-35 Modifications

ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0207142F	**Other Related Program Elements:** 0604800F

Line Item MDAP/MAIS Code: 198

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	455.123	115.811	68.270	247.271	0.000	247.271	311.627	279.167	284.700	290.461	0.000	2,052.430
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	455.123	115.811	68.270	247.271	0.000	247.271	311.627	279.167	284.700	290.461	0.000	2,052.430
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**455.123**	**115.811**	**68.270**	**247.271**	**0.000**	**247.271**	**311.627**	**279.167**	**284.700**	**290.461**	**0.000**	**2,052.430**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The F-35 Joint Strike Fighter (JSF) Program will develop and deploy a family of highly common, affordable, next generation, stealthy, multi-role strike fighters that meet the needs of multiple services and countries. The United States Air Force F-35A Conventional Take Off and Landing (CTOL) correction of deficiencies effort provides near and long term improvements to the fleet, focusing on documented deficiencies related to safety, maintainability, and aircraft systems. These modifications and selected component changes are accomplished by field and depot retrofit. In order to meet emerging deficiencies, the airframe and integrated systems must be modified as critical corrections/changes are identified. Funds will be used to manage, prepare, process and incorporate concurrency changes to sustain and improve F-35A system operations. Concurrency changes are implemented to coincide with resources and aircraft availability. Block upgrades provide more robust performance in navigation, weapons, avionics, survivability, maneuverability, maintainability, and mission deployment of the F-35A platform. This modification program will bring early production aircraft and integrated systems to a common fleet configuration as fielded capabilities evolve over the course of the F-35 program.

The modification funding requested in FY19 enables several distinct efforts pertaining to the Air Force F-35A aircraft to include post aircraft delivery concurrency retrofits, to correct deficiencies, the block upgrade of hardware and software to a Block 3i configuration, and the block upgrade of software components to a full Block 3F configuration. Budgetary increases between FY19-FY22 resulted from a re-phase of FY19 modification funding to better align with execution of requirements.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES
The overlap of development with production and operations results in the need to manage a concurrency program and conduct retrofits on jets with life-limited parts or impacts to capabilities. For the F-35 program, the emergence of new concurrency issues is expected to phase out with the completion of System Development and Demonstration (SDD) in the FY18 timeframe. Block 3i Fleet Release occurred 4th Qtr FY15, Block 3F Fleet Release is planned by 2nd Qtr FY18 and Block 4 Developmental Test & Engineering (DT&E) (funded through the Follow On Development Project Unit) Fleet Release is planned by 2nd Qtr 2022.

Funding for this exhibit contained in PE 0207142F.

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft

P-1 Line Item Number / Title:
F03500 / F-35 Modifications

ID Code (A=Service Ready, B=Not Service Ready): B | **Program Elements for Code B Items:** 0207142F | **Other Related Program Elements:** 0604800F

Line Item MDAP/MAIS Code: 198

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)
P-3a	1 / Block 3i LRIP 2-5 Upgrade (Capability Improvement)		B		- / 189.935	- / 11.485	- / 5.098	- / 2.117	- / 0.000	- / 2.117
P-3a	2 / Block 3F LRIP 2-5 Upgrade (Capability Improvement)		B		- / 6.790	- / 0.006	- / 0.540	- / 2.005	- / 0.000	- / 2.005
P-3a	3 / Block 3F LRIP 6-8 Upgrade (Capability Improvement)		B		- / 0.000	- / 0.000	- / 0.056	- / 0.000	- / 0.000	- / 0.000
P-3a	4 / Concurrency (Other)		B		- / 258.398	- / 104.320	- / 62.576	- / 243.149	- / 0.000	- / 243.149
P-3a	5 / Correction of Deficiencies (Reliability & Maintainability)		B		- / -	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-40	**Total Gross/Weapon System Cost**				**- / 455.123**	**- / 115.811**	**- / 68.270**	**- / 247.271**	**- / 0.000**	**- / 247.271**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)
P-3a	1 / Block 3i LRIP 2-5 Upgrade (Capability Improvement)		B		- / 8.171	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 216.806
P-3a	2 / Block 3F LRIP 2-5 Upgrade (Capability Improvement)		B		- / 0.250	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 9.591
P-3a	3 / Block 3F LRIP 6-8 Upgrade (Capability Improvement)		B		- / 2.800	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 2.856
P-3a	4 / Concurrency (Other)		B		- / 128.177	- / 119.533	- / 107.103	- / 290.461	- / 0.000	- / 1,313.717
P-3a	5 / Correction of Deficiencies (Reliability & Maintainability)		B		- / 172.229	- / 159.634	- / 177.597	- / 0.000	- / 0.000	- / 509.460
P-40	**Total Gross/Weapon System Cost**				**- / 311.627**	**- / 279.167**	**- / 284.700**	**- / 290.461**	**- / 0.000**	**- / 2,052.430**

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F03500 / F-35 Modifications	**Modification Number / Title:** 1 / Block 3i LRIP 2-5 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	189.935	11.485	5.098	2.117	0.000	2.117	8.171	0.000	0.000	0.000	0.000	216.806
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	189.935	11.485	5.098	2.117	0.000	2.117	8.171	0.000	0.000	0.000	0.000	216.806
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**189.935**	**11.485**	**5.098**	**2.117**	**0.000**	**2.117**	**8.171**	**0.000**	**0.000**	**0.000**	**0.000**	**216.806**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The block upgrade program retrofits United States Air Force F-35A aircraft and integrated systems procured under the LRIP contracts to a final Block 3F configuration. The retrofits to enable the final Block 3F configuration are comprised of hardware and software. The hardware per aircraft includes new radar modules, new Integrated Core Processor modules and rack, and new electronic warfare modules. Aircraft need to be updated to a final Block 3F configuration to avoid cost associated with maintaining multiple configurations of aircraft at operating locations. Some will require multiple modifications to reach the final Block 3F configuration.

This Modification Number (MN), effort MN-F3513 focuses on upgrading Blocks 1B, 2A, and 2B aircraft from LRIPs 2-5 to a Block 3i configuration. Block 3i is a stepping stone to the Block 3F configuration. It includes the procurement of hardware for the current Block 3i configuration. The parts include new radar modules, new Integrated Core Processor (ICP) modules and rack, and new Electronic Warfare (EW) modules. The Gen III Helmet will also be introduced as part of the Block 3i upgrade. This effort includes tooling and test equipment for Military Service Depots to support the execution of the Block Upgrade program.

Milestone/Development Status

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES
Block 3i Fleet Release occurred 4th Qtr FY15

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F03500 / F-35 Modifications	**Modification Number / Title:** 1 / Block 3i LRIP 2-5 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: F-35A	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0604800F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Block 3i												
B Kits												
Recurring												
Block 3i:EQUIPMENT Group B (Active)	33 / 149.801	13 / 8.608	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	46 / 158.409
Subtotal: Recurring	*- / 149.801*	*- / 8.608*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 158.409*
Subtotal: Block 3i	*- / 149.801*	*- / 8.608*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 158.409*
Subtotal: Procurement, All Modification Items	*- / 149.801*	*- / 8.608*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 158.409*
Support *(All Modification Items)*												
GROUP B: TOTAL NONRECURRING	- / -	- / -	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 0.000
SIM/TRAINER	24 / 12.984	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 12.984
Mod of Spares	- / 27.150	- / 2.877	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 30.027
Subtotal: Support	*24 / 40.134*	*- / 2.877*	*- / 0.000*	*- / 0.000*	*- / 0.000*	*- / 0.000*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*24 / 43.011*
Installation												
Modification Item 1 of 1: Block 3i	0 / 0.000	- / -	24 / 5.098	9 / 2.117	- / -	9 / 2.117	13 / 8.171	- / -	- / -	- / -	- / -	46 / 15.386
Subtotal: Installation	*- / 0.000*	*- / -*	*24 / 5.098*	*9 / 2.117*	*- / -*	*9 / 2.117*	*13 / 8.171*	*- / -*	*- / -*	*- / -*	*- / -*	*46 / 15.386*
Total												
Total Cost (Procurement + Support + Installation)	**189.935**	**11.485**	**5.098**	**2.117**	**0.000**	**2.117**	**8.171**	**0.000**	**0.000**	**0.000**	**0.000**	**216.806**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F03500 / F-35 Modifications	**Modification Number / Title:** 1 / Block 3i LRIP 2-5 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 1: Block 3i

Manufacturer Information

Manufacturer Name: Lockheed Martin	Manufacturer Location: Fort Worth
Administrative Leadtime *(in Months)*: 10	Production Leadtime *(in Months)*: 27

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Aug 2018						
Delivery Dates	Nov 2020						

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	0 / 0.000	- / -	24 / 5.098	9 / 2.117	- / -	9 / 2.117	- / -	- / -	- / -	- / -	- / -	33 / 7.215
FY 2017	- / -	- / -	0 / 0.000	- / -	- / -	- / -	13 / 8.171	- / -	- / -	- / -	- / -	13 / 8.171
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	- / -	24 / 5.098	9 / 2.117	- / -	9 / 2.117	13 / 8.171	- / -	- / -	- / -	- / -	46 / 15.386

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	6	5	7	6	3	2	2	2	4	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-	0	46
Out	0	-	-	-	-	6	5	7	6	3	2	2	2	4	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-	0	46

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F03500 / F-35 Modifications	**Modification Number / Title:** 2 / Block 3F LRIP 2-5 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	6.790	0.006	0.540	2.005	0.000	2.005	0.250	0.000	0.000	0.000	0.000	9.591
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	6.790	0.006	0.540	2.005	0.000	2.005	0.250	0.000	0.000	0.000	0.000	9.591
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**6.790**	**0.006**	**0.540**	**2.005**	**0.000**	**2.005**	**0.250**	**0.000**	**0.000**	**0.000**	**0.000**	**9.591**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The block upgrade program retrofits United States Air Force F-35A aircraft and integrated systems procured under the LRIP contracts to a final Block 3F configuration. The retrofits to enable the final Block 3F configuration are comprised of hardware and software. The hardware per aircraft includes new radar modules, new Integrated Core Processor modules and rack, and new electronic warfare modules. Aircraft need to be updated to a final Block 3F configuration to avoid cost associated with maintaining multiple configurations of aircraft at operating locations. Some will require multiple modifications to reach the final Block 3F configuration.

This effort (MN-F3514) focuses on the Block 3F configuration upgrade effort for 46 LRIP 2-5 and 56 LRIP 6-8 F-35A aircraft and integrated systems. All of the LRIP 2-5 F-35A aircraft receiving the Block 3F software under this MN will have already received the Block 3i hardware under MNF3513. This effort purchases all necessary software and installation labor to ensure LRIP 2-8 F-35A aircraft are upgraded to a Block 3F baseline for full warfighting capability.

Milestone/Development Status

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES
Block 3F fleet release is planned to occur by 3rd Qtr FY18.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F03500 / F-35 Modifications	**Modification Number / Title:** 2 / Block 3F LRIP 2-5 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: F-35A	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0604800F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Block 3F												
B Kits												
Recurring												
Block 3F:EQUIPMENT Group B (Active)	4 / 6.786	6 / 0.006	23 / 0.540	13 / 2.005	- / -	13 / 2.005	- / 0.250	- / -	- / -	- / -	- / -	46 / 9.587
Subtotal: Recurring	*- / 6.786*	*- / 0.006*	*- / 0.540*	*- / 2.005*	*- / -*	*- / 2.005*	*- / 0.250*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 9.587*
Subtotal: Block 3F	*- / 6.786*	*- / 0.006*	*- / 0.540*	*- / 2.005*	*- / -*	*- / 2.005*	*- / 0.250*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 9.587*
Subtotal: Procurement, All Modification Items	*- / 6.786*	*- / 0.006*	*- / 0.540*	*- / 2.005*	*- / -*	*- / 2.005*	*- / 0.250*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 9.587*
Support *(All Modification Items)*												
SIM/TRAINER	4 / 0.004	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 0.004
Subtotal: Support	*4 / 0.004*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*4 / 0.004*
Installation												
Modification Item 1 of 1: Block 3F	- / -	- / -	10 / 0.000	23 / 0.000	- / -	23 / 0.000	13 / 0.000	- / -	- / -	- / -	- / -	46 / 0.000
Subtotal: Installation	*- / -*	*- / -*	*10 / 0.000*	*23 / 0.000*	*- / -*	*23 / 0.000*	*13 / 0.000*	*- / -*	*- / -*	*- / -*	*- / -*	*46 / 0.000*
Total												
Total Cost (Procurement + Support + Installation)	**6.790**	**0.006**	**0.540**	**2.005**	**0.000**	**2.005**	**0.250**	**0.000**	**0.000**	**0.000**	**0.000**	**9.591**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F03500 / F-35 Modifications	**Modification Number / Title:** 2 / Block 3F LRIP 2-5 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 1: Block 3F

Manufacturer Information

Manufacturer Name: Lockheed Martin	Manufacturer Location: Fort Worth
Administrative Leadtime *(in Months)*: 10	Production Leadtime *(in Months)*: 3

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Aug 2017	Aug 2018	Aug 2019				
Delivery Dates	Nov 2017	Nov 2018	Nov 2019				

Installation Information

Method of Implementation: Depot Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	4 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 0.000
FY 2017	- / -	- / -	6 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.000
FY 2018	- / -	- / -	- / -	23 / 0.000	- / -	23 / 0.000	- / -	- / -	- / -	- / -	- / -	23 / 0.000
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	13 / 0.000	- / -	- / -	- / -	- / -	13 / 0.000
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	10 / 0.000	23 / 0.000	- / -	23 / 0.000	13 / 0.000	- / -	- / -	- / -	- / -	46 / 0.000

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	2	2	3	3	6	6	6	5	4	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-	0	46
Out	0	-	-	-	-	2	2	3	3	6	6	6	5	4	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-	0	46

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F03500 / F-35 Modifications	**Modification Number / Title:** 3 / Block 3F LRIP 6-8 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	0.000	0.056	0.000	0.000	0.000	2.800	0.000	0.000	0.000	0.000	2.856
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	0.000	0.056	0.000	0.000	0.000	2.800	0.000	0.000	0.000	0.000	2.856
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**0.000**	**0.056**	**0.000**	**0.000**	**0.000**	**2.800**	**0.000**	**0.000**	**0.000**	**0.000**	**2.856**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The block upgrade program retrofits United States Air Force F-35A aircraft and integrated systems procured under the LRIP contracts to a final Block 3F configuration. The retrofits to enable the final Block 3F configuration are comprised of hardware and software. The hardware per aircraft includes new radar modules, new Integrated Core Processor modules and rack, and new electronic warfare modules. Aircraft need to be updated to a final Block 3F configuration to avoid cost associated with maintaining multiple configurations of aircraft at operating locations. Some will require multiple modifications to reach the final Block 3F configuration.

This effort (MN-F3515) focuses on the Block 3F configuration upgrade effort for 46 LRIP 2-5 and 56 LRIP 6-8 F-35A aircraft and integrated systems. All of the LRIP 6-8 F-35A aircraft receiving the Block 3F software under this MN will have already received the Block 3i hardware under MN-F3513. This effort purchases all necessary software and installation labor to ensure LRIP 2-8 F-35A aircraft are upgraded to a Block 3F baseline for full warfighting capability.

Milestone/Development Status

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES
Block 3F fleet release is planned to occur by 3rd Qtr FY18. Modification kits will be procured based on flight test results.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F03500 / F-35 Modifications	**Modification Number / Title:** 3 / Block 3F LRIP 6-8 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: F-35A	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0604800F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Block 3F (2)												
B Kits												
Recurring												
Block 3F:EQUIPMENT Group B (Active)	- / -	- / -	0 / 0.056	- / -	- / -	- / -	56 / 2.800	- / -	- / -	- / -	- / -	56 / 2.856
Subtotal: Recurring	- / -	- / -	- / 0.056	- / -	- / -	- / -	- / 2.800	- / -	- / -	- / -	- / -	- / 2.856
Subtotal: Block 3F (2)	- / -	- / -	- / 0.056	- / -	- / -	- / -	- / 2.800	- / -	- / -	- / -	- / -	- / 2.856
Subtotal: Procurement, All Modification Items	- / -	- / -	- / 0.056	- / -	- / -	- / -	- / 2.800	- / -	- / -	- / -	- / -	- / 2.856
Support *(All Modification Items)*												
SUPPORT-EQUIP	- / -	- / -	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000
Subtotal: Support	- / -	- / -	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000
Installation												
Modification Item 1 of 1: Block 3F (2)	- / -	- / -	- / -	- / -	- / -	- / -	56 / 0.000	- / -	- / -	- / -	- / -	56 / 0.000
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	56 / -	- / -	- / -	- / -	- / -	56 / -
Total												
Total Cost (Procurement + Support + Installation)	**0.000**	**0.000**	**0.056**	**0.000**	**0.000**	**0.000**	**2.800**	**0.000**	**0.000**	**0.000**	**0.000**	**2.856**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F03500 / F-35 Modifications	**Modification Number / Title:** 3 / Block 3F LRIP 6-8 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 1: Block 3F (2)

Manufacturer Information

Manufacturer Name: Lockheed Martin	Manufacturer Location: Fort Worth
Administrative Leadtime *(in Months)*: 0	Production Leadtime *(in Months)*: 27

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates				Oct 2019			
Delivery Dates				Jan 2022			

Installation Information

Method of Implementation: Depot Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	56 / 0.000	- / -	- / -	- / -	- / -	56 / 0.000
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	56 / 0.000	- / -	- / -	- / -	- / -	56 / 0.000

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	-	15	15	15	11	-	-	-	-	-	-	-	-	-	-	-	-	0	56
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	15	15	15	11	-	-	-	-	-	-	-	-	-	-	-	-	0	56

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F03500 / F-35 Modifications	**Modification Number / Title:** 4 / Concurrency
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	258.398	104.320	62.576	243.149	0.000	243.149	128.177	119.533	107.103	290.461	0.000	1,313.717
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	258.398	104.320	62.576	243.149	0.000	243.149	128.177	119.533	107.103	290.461	0.000	1,313.717
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**258.398**	**104.320**	**62.576**	**243.149**	**0.000**	**243.149**	**128.177**	**119.533**	**107.103**	**290.461**	**0.000**	**1,313.717**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This effort (MN-F3516) funds retrofits due to concurrency changes to correct deficiencies discovered after DD-250 of the last aircraft in a given Low Rate Initial Production (LRIP) lot. This includes modifications required to extend aircraft service life currently limited by low-life parts, and relieve capability limitations driven by concurrency of production with development.

The concurrency funding line will procure the highest priority modifications from the Tri-Service Modification Prioritization List, as soon as they become supportable from an engineering, production, and installation standpoint. The list is vetted by the Services and Partners every 6 months to ensure the list accurately reflects existing requirements as well as emerging issues. Per-kit costs will vary for each modification being implemented, and in some cases will also vary for aircraft from different LRIP lots to implement an individual modification. For FY19, the highest priority modifications will directly support USAF IOC, Block 3i, and tactics development.

Total cost reflects procurement and installation costs in each fiscal year. Support costs include overall modification program planning, scheduling, and management; and support of Military and Service Depots and Depot Field Teams for incorporation of modifications.

The following modifications will be the highest priorities for accomplishment throughout the F-35A fleet using funds from this Budget Activity. FY19 concurrency funds will also be used to implement modifications across the rest of the USAF F-35A fleet. Increases in FY19-FY22 resulted from a re-phase of FY18 modification funding to better align with execution of requirements.

TI-0000-0015 Stress Failure of Hydraulic Tube Support Bracket
TI-0000-0031 Nose Wheel Steering (NWS) Motor Qualification Failure
TI-0000-0045 CTOL/STOVL MLG SDD & LRIP Part Number Rolls
TI-0000-0049 Ordnance Quick Latch System (OQLS) FS 424 Latch Corrosion Control
TI-0000-0055 IPP Bay Vent Fan Electrical Bond
TI-0000-0056 IPP Controller Part Number Roll
TI-0000-0058 Back-Up Radio Tray Clearance
TI-0000-0063 Bootstrap Accumulator Redesign
TI-0000-0064 Counter Measures Door Control Valve Life Limitation on AF:6
TI-0000-0098 CTOL Nose Landing Gear
TI-0000-0117 CTOL Trestle Inst Cotter Pin Alignment and Joint Clamp up (PR-45840)
TI-0000-0119 Production Ejection Seat (LRIP I & II) MWARS Replacement with Negative G Strap & New Cartridge Set Part Numbers
TI-0000-0122 28V BATTERY AND CHARGER CHANGES

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F03500 / F-35 Modifications	**Modification Number / Title:** 4 / Concurrency
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

TI-0000-0124 Controller, Motor Pump Qual Failure
TI-0000-0129 MLG Control Valve Part Number Roll
TI-0000-0130 Emergency Control Valve Qual Failure
TI-0000-0132 Valve, Mechanical Sequence - T Qual Failure
TI-0000-0133 Filter Module, Pressure Qual Failure
TI-0000-0135 Engine Driven Pump Life Limit
TI-0000-0137 Pump, Motor GND Maint Qual Failure
TI-0000-0138 Wingtip Light Improvement For FAA Compliance
TI-0000-0145 2AF:0006-0007 and AF:0017-0020. Record Control Panel (RCP) HARNESS ROUTE ERROR
TI-0000-0147 PTMS PAO Three-Port Valve Part Number Roll
TI-0000-0158 WBDD Flexible Cable Re-design
TI-0000-0161 EDU #1 & #2 Signal Deletion
TI-0000-0165 R3 Float Valve with Mechanical Thread Locking
TI-0000-0191 270V BCCU
TI-0000-0192 Gen II -10 Helmet Mounted Display Variance
TI-0000-0193 EW Gain State Control Logic Error
TI-0000-0208 CTOL Arresting Gear Push Rods - Incorrect Heat Treat for Al 2024-T4
TI-0000-0231 PTMS EHA Cooling Orifices - CTOL & STOVL
TI-0000-0236 FPS Fire and Bleed Leak Controller (FBLC) Redesign
TI-0000-0245 Update to Antenna Switch Unit for Cosite Function and Qualification Test Failures
TI-0000-0260 Canopy Actuation System
TI-0000-0263 Power Panel 1, 2, 3
TI-0000-0264 PTMS Controller Humidity, Temp, and Durability Qualification Test Failures
TI-0000-0281 Hoist Point Cover FIP Proposal
TI-0000-0282 Update to Audio Control Electronics (ACE) Unit for Qualification Test Failures
TI-0000-0286 Backup Radio (BuR) Indirect Lightning Qualification Test Failure
TI-0000-0316 CTOL & CV FS 496 Bulkhead Trunnion
TI-0000-0329 Refueling Bay and Nozzle Clash LRIP 1-3 Modification
TI-0000-0331 WBDDS RGAs Limited Life - Change Request Approval
TI-0000-0336 Panoramic Cockpit Display (PCD) - DU
TI-0000-0339 HMDS LRIP Subsystem Variance - UUT Outages
TI-0000-0343 Panoramic Cockpit Display (PCD) Major Variances - EU
TI-0000-0344 HMDS LRIP Subsystem Variance - Fixed Camera
TI-0000-0358 Production Ejection Seat (-0021)
TI-0000-0361 Vertical Tail 575 Fitting
TI-0000-0363 TRS Component Changes from Qual Test Failures
TI-0000-0367 Engine Trailer Adapter Kit - FS556 Interface, J27006/J27007
TI-0000-0386 Fuel System - Signal Amplifier
TI-0000-0387 Fuel System - Dive Rate Performance
TI-0000-0395 LEF Inbd Blade Seal Mousehole and CTOL LEF Lwr Inbd Blade Seal Failures
TI-0000-0398 Arresting Hook Aft Door Spring Damper Part Number Roll
TI-0000-0405 "EDU Random Vibration Failures
Electrical Distribution Unit Full Qualification"
TI-0000-0412 Wing Lighting Controller - Salt Fog Failure

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F03500 / F-35 Modifications	**Modification Number / Title:** 4 / Concurrency
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

TI-0000-0423 Engine Interchangeability Bleed Air System Ducting Design
TI-0000-0424 Firewall Shutoff Valve Part Number Roll
TI-0000-0425 CCDD LRIP1-016 No Intercom Transmit During Air Refueling
TI-0000-0432 Short Life - CTOL Wing Forward Root Rib
TI-0000-0441 CTOL FS 594 Centre Arch Low Life
TI-0000-0448 Add -0007 ASSCA/-0006 ATQA To Aircraft TVE
TI-0000-0456 Bulkhead - FS 450
TI-0000-0457 Bulkhead - FS 472
TI-0000-0458 Bulkhead - FS 518 Upper
TI-0000-0460 Bulkhead - FS 556
TI-0000-0463 Support - Fairing, Mid, LH/RH
TI-0000-0467 Fuel Floor - FS496-556, LH
TI-0000-0468 Fuel Floor - FS496-556, RH
TI-0000-0469 Life Support System (OBOGS, Steel BOS, SIC, SPA, PIC and Composite BOS)
TI-0000-0477 CTOL EHAS Panels - Incorrect Fastener Grips and De-torque Issu
TI-0000-0480 ICC Qual Issues
TI-0000-0495 OBIGGS & Pressure/Vent Changes for Lightning Protection
TI-0000-0538 EHA Flaperon Support Equipment Locations
TI-0000-0539 Cracking of Bifurcation Seam Treatment
TI-0000-0574 Electronics Units Modifications for EMI, Lightning and Qualification Compliance.
TI-0000-0575 ULF & 3BSD Emergency Control Valve
TI-0000-0576 Refuel Probe/Tailhook Emergency Control Valve
TI-0000-0578 Aux Inlet Door Emergency Control Valve
TI-0000-0583 CTOL STOVL Rudder EHA Design Change
TI-0000-0602 Brake Control Unit (BCU) Wet Runway Update & Operation of a Wet Runway
TI-0000-0607 Limited Life CTOL STA 3/9 Aft Rib
TI-0000-0608 Fwd Upper Engine Mount (CTOL)
TI-0000-0626 SMSFRIU SDD/LRIP Arm Disable Input
TI-0000-0631 Countermeasures Doors & NNMSB/WSESRB Concerns
TI-0000-0654 IDMS Connector Ref Des Swap
TI-0000-0655 EO DAS Center Fuselage Vibration Testing
TI-0000-0671 IFF Transponder Operation During Emergency Conditions
TI-0000-0673 Ordnance Quick Latch System (OQLS) - Clip Lock
TI-0000-0683 CR-017534 Rev- HT Bearing Issues
TI-0000-0707 Air Data System Design Changes For -0004 Configuration
TI-0000-0709 HT EHA Block Change
TI-0000-0723 EOTS PBS Startup Timeline
TI-0000-0737 IPP Purge Issue Due to Low Fuel Shutdown
TI-0000-0738 Modified Fuel Dump Valve (T28a)
TI-0000-0771 Install Battery into CNI Rack 3A and 3B
TI-0000-0772 PTMS Turbomachine/ACCM Cable Interface Changes
TI-0000-0802 CTOL Main Landing Gear
TI-0000-0808 Weapons Bay Door Uplock Sealing
TI-0000-0833 Short Shank Condition on Engine Inspection Panels

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F03500 / F-35 Modifications	**Modification Number / Title:** 4 / Concurrency
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

TI-0000-0854 DMCH MPEG VHDL Firmware Version
TI-0000-0866 Production Ejection Seat (-0023)
TI-0000-0884 AESG - Material & Workmanship
TI-0000-0895 Arm Disable Current Leakage Path Correction
TI-0000-0898 Electronic Warfare Band 3/4 Antenna and Edge Performance Issues
TI-0000-0910 PCD EU Cooling Rework
TI-0000-0913 LEFAS PDU Resolver and Rotor Shaft Seal Life
TI-0000-0945 CTOL Audio Control Electronics (ACE) In-Flight Refueling
TI-0000-0992 Outboard Vertical Tail Seal Redesign
TI-0000-0998 CTOL and CV Refuel System Mod
TI-0000-1000 Inboard Weapon Bay Door Flipper Door Design Change
TI-0000-1011 L-Band Pre-Selector (LBPS) Propagation Delay Calibration for Mode 5
TI-0000-1048 Panoramic Cockpit Display-Electronic Unit (PCD-EU)
TI-0000-1056 RADAR 1A & 1B Racks -0002 Cut-in
TI-0000-1060 Final Finishes
TI-0000-1078 Nacelle Insulation
TI-0000-1082 Power Panel 1 & 2 Random Vibration Failures - Second Failure
TI-0000-1092 Landing Taxi Light Redesign
TI-0000-1099 ATQA Mounting Bolt Interface
TI-0000-1102 BH-1 Weapons Bay Doors-AMRAAM Cradle Found Fatigue Cracks in Cradle Lugs @11,353 hrs
TI-0000-1113 AESG Power Connector Rating (Generator)
TI-0000-1192 Short Life - CTOL Thrust Mount Shear Web / 2WSH43777-0001 and 2WSH43778-0001 Do Not Meet Service Life Requirement
TI-0000-1198 HT Heating
TI-0000-1255 Fibre Channel Switch Design Issues-0004
TI-0000-1324 Structural Cracking of Aft MLG Door Drive Link U-Joint
TI-0000-1362 Production Incorporation of Improved ANR into VSI HMD
TI-0000-1372 EW Block-2 DRFM Module Firmware Issue
TI-0000-1396 HTCA with End Gland Material Issue
TI-0000-1408 CCDD LRIP4/LRIP 5-016 EW: AEL, Aft Sector
TI-0000-1472 Gun Port Door Threads in Bearing Issue
TI-0000-1483 Power Panel 3 Random Vibration Failures - Second Failure
TI-0000-1485 F1 Feed Tank Gasket Spill Out/Removing F1 Feed Tank Cover Gasket And Reworking To
Production Fay Seal Configuration
TI-0000-1494 PTMS Turbomachine Configuration to Correct Qualification Failures
TI-0000-1515 ESG Service Life (Generator) -0003
TI-0000-1518 Incorrect PAO Orifice In P5 Gp A Dummy LRU; Incorrect PAO Cooling Orifices In Center Fuselage Cold Liquid Loop
TI-0000-1549 Firmware Update for AMS Cartridge Reset SPAR
TI-0000-1551 28V Battery Full Qualification
TI-0000-1552 28V BCCU Lightning Compliance - 28V Battery Charger
TI-0000-1589 Hydraulic System Single Point Failure
TI-0000-1650 MWARS for Production Seat (LRIP 1-6)
TI-0000-1652 Rudder Slider Hinge Wear
TI-0000-1653 Ground Maintainance Valve Deletion to Prevent PAO in Cockpit (DR 1-4815699)
TI-0000-1706 Insertion of updated DMCH into LRIP 6 with Night Vision Camera Image Quality Improve

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F03500 / F-35 Modifications	**Modification Number / Title:** 4 / Concurrency
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

TI-0000-1761 HT EHA Solenoid Valve (SOV) Qual Test Failure
TI-0000-1783 Canopy Boot Cracking
TI-0000-1786 AJ-1 Test Incident - Cracked stiffener on the FS402 frame (TIN-075)
TI-0000-2450 Bleed Air Sensor Fitting Galling
TI-0000-2467 CTOL FS 503 Frame Limited Life
TI-0000-2468 CTOL IPP Shear Web Limited Life Discovery
TI-0000-2506 Gun Port Blast Mislocation
TI-0000-2528 270V Battery Gunfire Vibration Failure
TI-0000-2551 L-Band Power Amplifier (LBPA) Update for LINK-16
TI-0000-2580 AESG -0004 Qual Failure
TI-0000-2624 Lower Horizontal Tail Bullnose Panels Experiencing Coating Damage (panels 4134/4133)
TI-0000-2633 Flaperon Blade Seal Buckling
TI-0000-2659 Cockpit Green Indicator Bright/Dim Anomaly
TI-0000-2672 Radome Shroud Gapping / Trimming
TI-0000-2674 Cracking of Bifurcation Seam Treatment
TI-0000-2690 LAU-147 and BRU Vent Value Under Full Pressure
TI-0000-2699 Fibre Channel Switch Design Issues -0005
TI-0000-2714 -0025 Ejection Seat Qual Issues
TI-0000-2725 Vehicle Management Computer (VMC) Electrical Connection Issue on CTOL and STOVL A/C
TI-0000-2784 CNI 3A & 3B Integrated Backplane Assembly (IBA) EMI Upgrades
TI-0000-2786 Upgrade ICP Fibre Channel Switch Module to Address MS Stability Issues
TI-0000-2800 CNI TFR Module Humidity Qualification Test Failure
TI-0000-2818 EOTS LoS Pointing Angle
TI-0000-2833 Gun System Muzzle and Purge Door Time Out
TI-0000-2865 TR2 - SP-SPIO Issue
TI-0000-2891 OBIGGS Wash Pressure Buildup in Refuel Manifold
TI-0000-2909 IPP Bay High Flow Air Duct Separation
TI-0000-2921 Gun Vent Door Unpainted Brackets
TI-0000-3041 Nacelle Ventilation Intake (NVI) Failure Investigation
TI-0000-3054 Ammunition Handling System (AHS) Carrier Belt Rollers
TI-0000-3099 Gun Fwd Mount Muzzle Sleeve Nut Plate
TI-0000-3100 Horizontal Tail Bearing Specification Change
TI-0000-3194 Landing Aid Down Converter (LADC) Qualification Test Failure
TI-0000-3280 F-35A FS 383 Frame Short Life
TI-0000-3281 F-35A FS 402 Frame Short Life
TI-0000-3284 F-35A Center Fuselage F2 Floor Durability Life
TI-0000-3285 Egress System Safe Escape Intro for -6 Seat
TI-0000-3386 MLG Door Crank Arm Corrosion F35-A/B
TI-0000-3597 F-35 Fuel Tank Overpressure
TI-7777-0003 Block 1.0-v01.702 Formal Systems Build (Rev B - MVI R10.1.3 software. Rev C
captures ALIS 1.0.2E.1 software mod) (Rev D addresses AV software mod .702 for CTOL and new MVI R11.x.2.2)
TI-7777-0004 MLG Strut Redesign
TI-7777-0007 OBOGS Plenum HEPA Filter Provisioning
TI-7777-0010 Radar Harness Redesign

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F03500 / F-35 Modifications	**Modification Number / Title:** 4 / Concurrency
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

TI-7777-0024 Gun Gas Purge & Gun Port Door Actuators
TI-7777-0031 Brake Control Electronic Unit Update
TI-7777-0042 Return Fuel Cooler HX Coating
TI-7777-0057 Nacelle Fan - Full Qualified Configuration
TI-7777-0077 Small Diameter Bomb (SDB) Rack Strut
TI-7777-0081 270V BCCU Change
TI-7777-0083 CTOL/STOVL EHAS/LEFAS -0011 EU & Rack Config Update
TI-7777-0084 ACCM Filter Pin
TI-7777-0085 Replacement of Door Actuator Lock Assemblies (STOVL/CTOL Door Locks)
TI-7777-0087 CTOL/STOVL/CV Flaperon EHA Pump Design Change
TI-7777-0089 Avionics Bay Environmental Seal Change
TI-7777-0093 Flow Sensor EMI/Vibration
TI-7777-0095 Manual Drive Unit
TI-7777-0097 IEU Lightning Compliance
TI-7777-0101 NLG Down Lock Actuator
TI-7777-1001 LRIP 1&2 Block 1 Upgrade
TI-7777-1002 Replacement of Block 1B Hardware and Issuance of Block 1B Software
TI-9999-0191 Interim Solution - 270V BCCU
TI-9999-1650 MWARS for Production Seat - LRIP 5 Only
TI-0000-3443 Vehicle Management Computer CCDL Failure Investigation and Corrective Action
TI-0000-3674 NGC Supplier Disclosure - L/R 211 Skin Missing Shims
TI-0000-3762 AME 3 System Allows Water Intrusion into Aft Upper Wing Hoist Point
TI-0000-3775 FS402 Upper Frame Durability Life
TI-0000-3819 WBDDS Inductive Switch Short Life

Milestone/Development Status

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES For the F-35 program, the discovery of new concurrency changes phases out with the completion of SDD.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F03500 / F-35 Modifications	**Modification Number / Title:** 4 / Concurrency
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: F-35A	**Modification Type:** Other	**Related RDT&E PEs:** 0604800F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Concurrency												
A Kits												
Recurring												
Concurrency:INSTALL KITS Group A (Active)	- / 248.948	- / 93.820	- / 51.267	- / 206.625	- / -	- / 206.625	- / 86.853	- / 81.459	- / 68.274	- / 290.461	- / -	- / 1,127.707
Subtotal: Recurring	*- / 248.948*	*- / 93.820*	*- / 51.267*	*- / 206.625*	*- / - *	*- / 206.625*	*- / 86.853*	*- / 81.459*	*- / 68.274*	*- / 290.461*	*- / - *	*- / 1,127.707*
Subtotal: Concurrency	*- / 248.948*	*- / 93.820*	*- / 51.267*	*- / 206.625*	*- / - *	*- / 206.625*	*- / 86.853*	*- / 81.459*	*- / 68.274*	*- / 290.461*	*- / - *	*- / 1,127.707*
Subtotal: Procurement, All Modification Items	*- / 248.948*	*- / 93.820*	*- / 51.267*	*- / 206.625*	*- / - *	*- / 206.625*	*- / 86.853*	*- / 81.459*	*- / 68.274*	*- / 290.461*	*- / - *	*- / 1,127.707*
Support *(All Modification Items)*												
ICS-Labor	- / 8.750	- / 5.000	- / 9.514	- / 30.427	- / -	- / 30.427	- / 34.539	- / 31.533	- / 32.158	- / -	- / -	- / 151.921
OTHER GOVT	- / 0.700	- / 5.500	- / 1.795	- / 6.097	- / -	- / 6.097	- / 6.785	- / 6.541	- / 6.671	- / -	- / -	- / 34.089
Subtotal: Support	*- / 9.450*	*- / 10.500*	*- / 11.309*	*- / 36.524*	*- / - *	*- / 36.524*	*- / 41.324*	*- / 38.074*	*- / 38.829*	*- / - *	*- / - *	*- / 186.010*
Installation												
Subtotal: Installation	*- / - *	*- / - *	*- / - *	*- / - *	*- / - *	*- / - *	*- / - *	*- / - *	*- / - *	*- / - *	*- / - *	*- / - *
Total												
Total Cost (Procurement + Support + Installation)	**258.398**	**104.320**	**62.576**	**243.149**	**0.000**	**243.149**	**128.177**	**119.533**	**107.103**	**290.461**	**0.000**	**1,313.717**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F03500 / F-35 Modifications	**Modification Number / Title:** 4 / Concurrency

ID Code (A=Service Ready, B=Not Service Ready) : B | **MDAP/MAIS Code:**

Modification Item 1 of 1: Concurrency

Manufacturer Information

Manufacturer Name: Lockheed Martin | Manufacturer Location: Fort Worth

Administrative Leadtime *(in Months)*: 0 | Production Leadtime *(in Months)*: 0

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation (Organic): Org/Intermediate | **Installation Quantity:** 0

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F03500 / F-35 Modifications	**Modification Number / Title:** 5 / Correction of Deficiencies
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	0.000	0.000	0.000	0.000	0.000	172.229	159.634	177.597	0.000	0.000	509.460
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	0.000	0.000	0.000	0.000	172.229	159.634	177.597	0.000	0.000	509.460
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**172.229**	**159.634**	**177.597**	**0.000**	**0.000**	**509.460**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

F-35 CTOL Correction of Deficiencies provides near and long term improvements to fielded F-35 jets, and focuses on correcting documented deficiencies related to safety, maintainability, and aircraft systems. These modifications and selected component changes are being accomplished by field retrofit performed by Hill AFB, contractor artisans, contractor field mod teams, and organic support. In order to meet emerging deficiencies, the airframe and integrated systems must be modified as critical corrections/changes are identified. Funds will be used to manage, prepare, process and incorporate Engineering Change Proposals (ECP) and implement those changes to sustain and improve F-35 CTOL system operations. ECPs are implemented to coincide with resources and aircraft availability. These changes provide more robust performance in navigation, weapons, avionics, survivability, maneuverability, maintainability, and mission deployment of the
F-35 CTOL platform. This modification program may be required to provide timely remedial action for any aircraft system, component or structure.

Milestone/Development Status

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: The establishment of this Modification is concurrent with the phase out of SDD in FY18 and after the declaration of IOC for the USAF in FY16. This Modification will fund the incorporation of ECPs that are not associated with the concurrency program.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F03500 / F-35 Modifications	**Modification Number / Title:** 5 / Correction of Deficiencies
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: F-35A	**Modification Type:** Reliability & Maintainability	**Related RDT&E PEs:** 0604800F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Correction of Deficiencies												
B Kits												
Recurring												
Correction of Deficiencies:EQUIPMENT Group B (Active)	- / -	- / -	- / -	- / -	- / -	- / -	50 / 150.946	50 / 139.861	56 / 157.370	- / -	- / -	156 / 448.177
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 150.946*	*- / 139.861*	*- / 157.370*	*- / -*	*- / -*	*- / 448.177*
Subtotal: Correction of Deficiencies	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 150.946*	*- / 139.861*	*- / 157.370*	*- / -*	*- / -*	*- / 448.177*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 150.946*	*- / 139.861*	*- / 157.370*	*- / -*	*- / -*	*- / 448.177*
Support *(All Modification Items)*												
ICS-Labor	- / -	- / -	- / -	- / -	- / -	- / -	- / 16.536	- / 15.327	- / 15.631	- / -	- / -	- / 47.494
OTHER GOVT	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.130	- / 3.828	- / 3.903	- / -	- / -	- / 11.861
Subtotal: Support	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 20.666*	*- / 19.155*	*- / 19.534*	*- / -*	*- / -*	*- / 59.355*
Installation												
Modification Item 1 of 1: Correction of Deficiencies	- / -	- / -	- / -	- / -	- / -	- / -	50 / 0.617	50 / 0.618	56 / 0.693	- / -	- / -	156 / 1.928
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*50 / 0.617*	*50 / 0.618*	*56 / 0.693*	*- / -*	*- / -*	*156 / 1.928*
Total												
Total Cost (Procurement + Support + Installation)	**-**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**172.229**	**159.634**	**177.597**	**0.000**	**0.000**	**509.460**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F03500 / F-35 Modifications	**Modification Number / Title:** 5 / Correction of Deficiencies
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 1: Correction of Deficiencies

Manufacturer Information

Manufacturer Name: TBD	Manufacturer Location: TBD
Administrative Leadtime *(in Months)*: 0	Production Leadtime *(in Months)*: 0

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	50 / 0.617	- / -	- / -	- / -	- / -	50 / 0.617
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	50 / 0.618	- / -	- / -	- / -	50 / 0.618
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	56 / 0.693	- / -	- / -	56 / 0.693
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	50 / 0.617	50 / 0.618	56 / 0.693	- / -	- / -	156 / 1.928

Installation Schedule

		FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023					
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	0	-	-	-	-	-	-	-	-	-	-	-	-	12	12	12	14	13	12	12	13	14	14	14	14	-	-	-	-	0	156
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	12	12	12	14	13	12	12	13	14	14	14	14	-	-	-	-	0	156

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft	**P-1 Line Item Number / Title:** F15EWS / F-15 EPAW

ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0207171F	**Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	0.000	0.000	147.685	0.000	147.685	149.047	142.443	308.818	258.982	1,033.237	2,040.212
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	0.000	147.685	0.000	147.685	149.047	142.443	308.818	258.982	1,033.237	2,040.212
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**0.000**	**147.685**	**0.000**	**147.685**	**149.047**	**142.443**	**308.818**	**258.982**	**1,033.237**	**2,040.212**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The F-15 is the most versatile fighter in the world today. The F-15C continues to provide air superiority with an undefeated and unmatched aerial combat record. The F-15E retains this air superiority capability and adds systems, such as advanced imaging and targeting systems, to meet the requirement for all-weather, deep penetration, and night / under-the-weather, air-to-surface attack. A mainstay in operations both domestic and abroad, upgrades to the F-15 (avionics, armament, airframe and engines) are critical to maintaining combat viability (lethality, survivability and supportability). Projected to remain in service past 2040, avionics upgrades are key to long-term weapon system viability. The proliferation of fourth generation enemy aircraft, sophisticated "double-digit" anti-aircraft missile systems and other enemy systems pose a significant threat to F-15 survivability. The F-15 Eagle Passive Active Warning and Survivability System (EPAWSS) replaces the F-15's functionally obsolete self-defense Tactical Electronic Warfare System (TEWS) enhancing weapon system situational awareness and survivability against enemy threats. F-15 EPAWSS also improves reliability and sustainability. F-15 EPAWSS is linked to an aircraft operational flight program update schedule that works to integrate new capabilities with the airframe. Incorporation of corresponding spiral and / or phased technology / equipment improvements that include support equipment, mission planning systems, and training device upgrades will improve performance, supportability and aircrew training.
The F-15 EPAWSS upgrade significantly improves the F-15's capability to autonomously and automatically detect, identify and locate radio frequency (RF) threats as well as provide the ability to deny, degrade, deceive, disrupt and defeat RF and electro-optical / infrared (EO / IR) threat systems in contested and unplanned operations within highly contested environments through 2040. The F-15 EPAWSS provides indication, type and position of ground-based RF threats as well as the indication, type and bearing of airborne threats with the situational awareness needed to avoid, engage or negate the threat. The F-15 EPAWSS prevents RF and IR threat systems from detecting or acquiring accurate targeting information prior to threat engagement to complicate and / or negate an enemy threat targeting solution--and effectively counter enemy missiles / weapons if adversary threat systems engage and employ weapons against friendly forces--through components such as chaff, flares, decoys / angle countermeasures and jamming.

Funding may be used to resolve Diminishing Manufacturing Sources/Material Shortages (DMSMS) and/or obsolescence issues. DMSMS activities may include, but are not limited to, bridge buys, life of type buys, buys to protect production schedule, and minor engineering efforts for redesign. DMSMS costs are included in Group B NRE; SE/PM costs are included in Group B recurring.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	147.685	-	147.685	149.047	142.443	308.818	258.982
Total:	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft	**P-1 Line Item Number / Title:** F15EWS / F-15 EPAW	
ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0207171F	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Secondary Distribution	Total Obligation Authority	-	-	147.685	-	147.685	149.047	142.443	308.818	258.982

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft	**P-1 Line Item Number / Title:** F15EWS / F-15 EPAW

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0207171F	Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-3a	8795 / EPAWSS-E (Capability Improvement)		B		- / -	- / 0.000	- / 0.000	- / 147.685	- / 0.000	- / 147.685
P-40	**Total Gross/Weapon System Cost**				**- / -**	**- / 0.000**	**- / 0.000**	**- / 147.685**	**- / 0.000**	**- / 147.685**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-3a	8795 / EPAWSS-E (Capability Improvement)		B		- / 149.047	- / 142.443	- / 308.818	- / 258.982	- / 1,033.237	- / 2,040.212
P-40	**Total Gross/Weapon System Cost**				**- / 149.047**	**- / 142.443**	**- / 308.818**	**- / 258.982**	**- / 1,033.237**	**- / 2,040.212**

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F15EWS / F-15 EPAW	**Modification Number / Title:** 8795 / EPAWSS-E
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	0.000	0.000	147.685	0.000	147.685	149.047	142.443	308.818	258.982	1,033.237	2,040.212
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	0.000	147.685	0.000	147.685	149.047	142.443	308.818	258.982	1,033.237	2,040.212
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**0.000**	**147.685**	**0.000**	**147.685**	**149.047**	**142.443**	**308.818**	**258.982**	**1,033.237**	**2,040.212**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This program, P-3A Mod 8795, EPAWSS-E, is a new start.

Milestone/Development Status

The F-15 is the most versatile fighter in the world today. The F-15E provides air superiority and adds systems, such as advanced imaging and targeting systems, to meet the requirement for all-weather, deep penetration, and night/under-the-weather, air-to-surface attack with an undefeated and unmatched aerial combat record. A mainstay in operations both domestic and abroad, upgrades to the F-15 (avionics, armament, airframe and engines) are critical to maintaining combat viability (lethality, survivability and supportability). Projected to remain in service past 2040, avionics modernization is key to long-term weapon system viability. This modification is built on a foundation of technical and acquisition support studies (both internal to the Air Force and through outside contractors). The proliferation of fourth generation enemy aircraft, sophisticated "double-digit" anti-aircraft missile systems and other enemy systems pose a significant threat to F-15 survivability. The F-15 Eagle Passive Active Warning and Survivability System (EPAWSS) will replace the F-15's functionally obsolete self-defense Tactical Electronic Warfare System (TEWS) on 217 F-15E aircraft to enhance weapon system situational awareness and survivability against enemy threats. F-15 EPAWSS will also improve reliability and sustainability. F-15 EPAWSS is linked to an aircraft operational flight program update schedule that works to integrate new capabilities with the airframe. Incorporation of corresponding spiral and/or phased technology/equipment improvements that include support equipment, mission planning systems, and training device upgrades will improve performance, supportability and aircrew training.

The F-15 EPAWSS upgrade will significantly improve the F-15's capability to autonomously and automatically detect, identify and locate radio frequency (RF) threats as well as provide the ability to deny, degrade, deceive, disrupt and defeat RF and electro-optical/infrared (EO/IR) threat systems in contested and unplanned operations within highly contested environments through 2040. The F-15 EPAWSS will provide indication, type and position of ground-based RF threats as well as the indication, type and bearing of airborne threats with the situational awareness needed to avoid, engage or negate the threat. The F-15 EPAWSS will prevent RF and IR threat systems from detecting or acquiring accurate targeting information prior to threat engagement to complicate and/or negate an enemy threat targeting solution and effectively counter enemy missiles/weapons if adversary threat systems engage and employ weapons against friendly forces--through components such as chaff, flares, decoys/angle countermeasures and jamming.

Funding may be used to resolve Diminishing Manufacturing Sources/Material Shortages (DMSMS) and/or obsolescence issues. DMSMS activities may include, but are not limited to, bridge buys, life of type buys, buys to protect production schedule, and minor engineering efforts for redesign. DMSMS costs are included in Group B NRE; SE/PM costs are included in Group B recurring.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F15EWS / F-15 EPAW	**Modification Number / Title:** 8795 / EPAWSS-E
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
	Total Obligation Authority	-	-	147.685	-	147.685	149.047	142.443	308.818	258.982
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**0.000**	**0.000**	**147.685**	**0.000**	**147.685**	**149.047**	**142.443**	**308.818**	**258.982**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F15EWS / F-15 EPAW	**Modification Number / Title:** 8795 / EPAWSS-E
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: F-15E	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0207171F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0207171F	- / -	- / -	- / -	- / 137.095	- / -	- / 137.095	- / 67.322	- / 1.276	- / 2.360	- / 22.573	- / -	- / 230.626
Procurement												
Modification Item 1 of 1: EPAWSS												
A Kits												
Recurring												
EPAWSS:INSTALL KITS Group A (Active)	- / -	- / -	- / -	14 / 50.668	- / -	14 / 50.668	12 / 45.095	14 / 39.302	27 / 89.973	27 / 78.073	123 / 347.347	217 / 650.458
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / 50.668*	*- / -*	*- / 50.668*	*- / 45.095*	*- / 39.302*	*- / 89.973*	*- / 78.073*	*- / 347.347*	*- / 650.458*
B Kits												
Recurring												
EPAWSS:EQUIPMENT Group B (Active)	- / -	- / -	- / -	14 / 66.075	- / -	14 / 66.075	12 / 59.210	14 / 55.325	27 / 106.167	27 / 105.014	123 / 399.314	217 / 791.105
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / 66.075*	*- / -*	*- / 66.075*	*- / 59.210*	*- / 55.325*	*- / 106.167*	*- / 105.014*	*- / 399.314*	*- / 791.105*
Subtotal: EPAWSS	*- / -*	*- / -*	*- / -*	*- / 116.743*	*- / -*	*- / 116.743*	*- / 104.305*	*- / 94.627*	*- / 196.140*	*- / 183.087*	*- / 746.661*	*- / 1,441.563*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / -*	*- / 116.743*	*- / -*	*- / 116.743*	*- / 104.305*	*- / 94.627*	*- / 196.140*	*- / 183.087*	*- / 746.661*	*- / 1,441.563*
Support *(All Modification Items)*												
GROUP B: TOTAL NONRECURRING	- / -	- / -	- / -	- / 3.433	- / -	- / 3.433	- / 3.658	- / 3.074	- / 5.881	- / 5.804	- / 24.425	- / 46.275
PMA - Other Gov't Costs	- / -	- / -	- / -	- / 12.441	- / -	- / 12.441	- / 12.734	- / 3.828	- / 5.452	- / 3.703	- / 16.914	- / 55.072
Data	- / -	- / -	- / -	- / 1.431	- / -	- / 1.431	- / 1.171	- / 1.340	- / 4.480	- / 2.493	- / 11.692	- / 22.607
Change Orders	- / -	- / -	- / -	- / 5.084	- / -	- / 5.084	- / 5.839	- / 4.969	- / 41.783	- / 10.644	- / 40.978	- / 109.297
SUPPORT-EQUIP	- / -	- / -	- / -	- / 7.740	- / -	- / 7.740	- / 11.526	- / 17.205	- / 34.274	- / 26.749	- / 0.720	- / 98.214
ICS-Labor	- / -	- / -	- / -	- / 0.000	- / -	- / 0.000	- / 9.130	- / 3.186	- / 3.121	- / 1.876	- / 1.964	- / 19.277
Type 1 Training	- / -	- / -	- / -	- / 0.813	- / -	- / 0.813	- / 0.684	- / 0.803	- / 2.573	- / 1.569	- / 7.061	- / 13.503
Subtotal: Support	*- / -*	*- / -*	*- / -*	*- / 30.942*	*- / -*	*- / 30.942*	*- / 44.742*	*- / 34.405*	*- / 97.564*	*- / 52.838*	*- / 103.754*	*- / 364.245*
Installation												
Modification Item 1 of 1: EPAWSS	- / -	- / -	- / -	- / -	- / -	- / -	- / -	14 / 13.411	19 / 15.114	27 / 23.057	157 / 182.822	217 / 234.404
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*14 / 13.411*	*19 / 15.114*	*27 / 23.057*	*157 / 182.822*	*217 / 234.404*
Total												
Total Cost (Procurement + Support + Installation)	**-**	**0.000**	**0.000**	**147.685**	**0.000**	**147.685**	**149.047**	**142.443**	**308.818**	**258.982**	**1,033.237**	**2,040.212**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F15EWS / F-15 EPAW	**Modification Number / Title:** 8795 / EPAWSS-E
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 1: EPAWSS

Manufacturer Information

Manufacturer Name: Boeing	Manufacturer Location: St. Louis
Administrative Leadtime *(in Months)*: 0	Production Leadtime *(in Months)*: 14

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates			Aug 2019	Oct 2019	Oct 2020	Oct 2021	Oct 2022
Delivery Dates			Oct 2020	Dec 2020	Dec 2021	Dec 2022	Dec 2023

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	14 / 13.411	- / -	- / -	- / -	14 / 13.411
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 9.546	- / -	- / -	12 / 9.546
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 5.568	7 / 5.978	- / -	14 / 11.546
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	20 / 17.079	7 / 7.043	27 / 24.122
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	27 / 27.859	27 / 27.859
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	123 / 147.920	123 / 147.920
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	14 / 13.411	19 / 15.114	27 / 23.057	157 / 182.822	217 / 234.404

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	5	6	3	3	6	7	4	9	7	7	157	217
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	5	6	3	3	6	7	4	9	7	164	217

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft	**P-1 Line Item Number / Title:** F2232B / Increment 3.2b

ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0207138F	**Other Related Program Elements:** 0605213F

Line Item MDAP/MAIS Code: 474

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	64.325	76.410	107.756	9.007	0.000	9.007	20.213	5.963	0.000	0.000	-	283.674
Less PY Advance Procurement *($ in Millions)*	28.500	-	2.000	-	-	-	-	-	-	-	-	30.500
Net Procurement (P-1) *($ in Millions)*	35.825	76.410	105.756	9.007	0.000	9.007	20.213	5.963	0.000	0.000	-	253.174
Plus CY Advance Procurement *($ in Millions)*	28.500	2.000	-	-	-	-	-	-	-	-	-	30.500
Total Obligation Authority *($ in Millions)*	**64.325**	**78.410**	**105.756**	**9.007**	**0.000**	**9.007**	**20.213**	**5.963**	**0.000**	**0.000**	**-**	**283.674**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Increment 3.2B retrofits Block 30 and 35 aircraft with hardware to host Increment 3.2B capabilities including the Enhanced Stores Management System (ESMS) Common Split Bus, AIM-120D, AIM-9X, Electronic Protection enhancements, Intra-Flight Datalink (IFDL) improvements, and Geolocate 2.0. Increment 3.2B is the user's highest priority for F-22.

F-22 Increment 3.2B procurement and installation is scheduled to complete prior to FY 2023 therefore there is no cost to complete.

Funding for this exhibit is contained in PE 0207138F.

The RDT&E funding for this effort is contained in PE 0207138F (FY 2004 - FY 2018; PE 0207163F (FY 2010 - FY 2013); PE 0207445F (FY 2007 - FY 2010); and PE 020001F (FY 2007).

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	78.410	82.286	9.007	-	9.007	16.102	5.963	0.000	-
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	23.470	-	-	-	4.111	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**78.410**	**105.756**	**9.007**	**-**	**9.007**	**20.213**	**5.963**	**0.000**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft	**P-1 Line Item Number / Title:** F2232B / Increment 3.2b

ID Code (A=Service Ready, B=Not Service Ready): B | **Program Elements for Code B Items:** 0207138F | **Other Related Program Elements:** 0605213F

Line Item MDAP/MAIS Code: 474

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-3a	11100 / INCREMENT 3.2B (Capability Improvement)		B		- / 64.325	- / 76.410	- / 107.756	- / 9.007	- / 0.000	- / 9.007
P-40	**Total Gross/Weapon System Cost**				**- / 64.325**	**- / 76.410**	**- / 107.756**	**- / 9.007**	**- / 0.000**	**- / 9.007**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-3a	11100 / INCREMENT 3.2B (Capability Improvement)		B		- / 20.213	- / 5.963	- / 0.000	- / -	- / -	- / 283.674
P-40	**Total Gross/Weapon System Cost**				**- / 20.213**	**- / 5.963**	**- / 0.000**	**- / 0.000**	**- / -**	**- / 283.674**

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F2232B / Increment 3.2b	**Modification Number / Title:** 11100 / INCREMENT 3.2B
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	64.325	76.410	107.756	9.007	0.000	9.007	20.213	5.963	0.000	-	-	283.674
Less PY Advance Procurement *($ in Millions)*	28.500	-	2.000	-	-	-	-	-	-	-	-	30.500
Net Procurement (P-1) *($ in Millions)*	35.825	76.410	105.756	9.007	0.000	9.007	20.213	5.963	0.000	-	-	253.174
Plus CY Advance Procurement *($ in Millions)*	28.500	2.000	-	-	-	-	-	-	-	-	-	30.500
Total Obligation Authority *($ in Millions)*	**64.325**	**78.410**	**105.756**	**9.007**	**0.000**	**9.007**	**20.213**	**5.963**	**0.000**	**-**	**-**	**283.674**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	4.431	7.732	-	-	-	-	-	-	-	-	12.163
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Increment 3.2B retrofits Block 30 and 35 aircraft with hardware to host Increment 3.2B Enhanced Stores Management System (ESMS) Common Split Bus, AIM-120D, AIM-9X, Electronic Protection enhancements, IFDL improvements, and Geolocate 2.0. Increment 3.2B is the user's highest priority for F-22.

Milestone/Development Status

All hardware is qualified and is being installed on 3.2B test aircraft.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	78.410	82.286	9.007	-	9.007	16.102	5.963	0.000	-
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	23.470	-	-	-	4.111	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**78.410**	**105.756**	**9.007**	**0.000**	**9.007**	**20.213**	**5.963**	**0.000**	**-**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F2232B / Increment 3.2b	**Modification Number / Title:** 11100 / INCREMENT 3.2B
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: F-22	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0605213F, 0207138F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0207138F	- / 897.039	- / 70.290	- / 13.600	- / 0.000	- / -	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / 980.929
Procurement												
Modification Item 1 of 1: Inc 3.2B Kits												
A Kits												
Recurring												
Inc 3.2B Kits:INSTALL KITS Group A (Active)	35 / 0.500	36 / 0.500	52 / 0.650	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	123 / 1.650
Inc 3.2B Kits:INSTALL KITS Group A (Guard)	- / -	- / -	20 / 0.250	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	20 / 0.250
Subtotal: Recurring	*- / 0.500*	*- / 0.500*	*- / 0.900*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 1.900*
B Kits												
Recurring												
Inc 3.2B Kits:EQUIPMENT Group B (Active)	35 / 60.023	36 / 59.910	52 / 60.636	- / -	- / -	- / -	- / -	- / -	0 / 0.000	- / -	- / -	123 / 180.569
Inc 3.2B Kits:EQUIPMENT Group B (Guard)	- / -	- / -	20 / 23.220	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	20 / 23.220
Subtotal: Recurring	*- / 60.023*	*- / 59.910*	*- / 83.856*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.000*	*- / -*	*- / -*	*- / 203.789*
Subtotal: Inc 3.2B Kits	*- / 60.523*	*- / 60.410*	*- / 84.756*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.000*	*- / -*	*- / -*	*- / 205.689*
Subtotal: Procurement, All Modification Items	*- / 60.523*	*- / 60.410*	*- / 84.756*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.000*	*- / -*	*- / -*	*- / 205.689*
Support *(All Modification Items)*												
Data	- / 1.200	- / 3.500	- / 3.100	- / 0.000	- / -	- / 0.000	- / 0.300	- / -	- / -	- / -	- / -	- / 8.100
SUPPORT-EQUIP	- / 2.602	- / 4.398	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 7.000
PMA - Other Gov't Costs	- / -	- / 8.102	- / 15.300	- / 2.007	- / -	- / 2.007	- / 5.113	- / 5.963	- / -	- / -	- / -	- / 36.485
Subtotal: Support	*- / 3.802*	*- / 16.000*	*- / 18.400*	*- / 2.007*	*- / -*	*- / 2.007*	*- / 5.413*	*- / 5.963*	*- / -*	*- / -*	*- / -*	*- / 51.585*
Installation												
Modification Item 1 of 1: Inc 3.2B Kits	- / -	- / -	35 / 4.600	36 / 7.000	- / -	36 / 7.000	72 / 14.800	- / -	- / -	- / -	- / -	143 / 26.400
Subtotal: Installation	*- / -*	*- / -*	*35 / 4.600*	*36 / 7.000*	*- / -*	*36 / 7.000*	*72 / 14.800*	*- / -*	*- / -*	*- / -*	*- / -*	*143 / 26.400*
Total												
Total Cost (Procurement + Support + Installation)	**64.325**	**76.410**	**107.756**	**9.007**	**0.000**	**9.007**	**20.213**	**5.963**	**0.000**	**-**	**-**	**283.674**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F2232B / Increment 3.2b	**Modification Number / Title:** 11100 / INCREMENT 3.2B

ID Code (A=Service Ready, B=Not Service Ready) : B | **MDAP/MAIS Code:**

Modification Item 1 of 1: Inc 3.2B Kits

Manufacturer Information

Manufacturer Name: Lockheed Martin | Manufacturer Location: Fort Worth, TX

Administrative Leadtime *(in Months)*: 1 | Production Leadtime *(in Months)*: 24

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Jan 2017	Jan 2018					
Delivery Dates	Jan 2019	Jan 2020					

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	35 / 4.600	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	35 / 4.600
FY 2017	- / -	- / -	- / -	36 / 7.000	- / -	36 / 7.000	- / -	- / -	- / -	- / -	- / -	36 / 7.000
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	72 / 14.800	- / -	- / -	- / -	- / -	72 / 14.800
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	35 / 4.600	36 / 7.000	- / -	36 / 7.000	72 / 14.800	- / -	- / -	- / -	- / -	143 / 26.400

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	11	12	12	9	9	9	9	18	18	18	18	-	-	-	-	-	-	-	-	-	-	-	-	0	143
Out	0	-	-	-	-	-	11	12	12	9	9	9	9	18	18	18	18	-	-	-	-	-	-	-	-	-	-	-	-	0	143

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Exhibit P-40, Advance Procurement Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft	**P-1 Line Item Number / Title:** F2232B / Increment 3.2b
Program Elements for Code B Items: 0207138F	**Other Related Program Elements:** 0605213F
Line Item MDAP/MAIS Code: 474	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Gross/Weapon System Cost *($ in Millions)*	28.500	2.000	-	-	-	-	-	-	-	-	-	30.500
Net Procurement (P-1) *($ in Millions)*	28.500	2.000	-	-	-	-	-	-	-	-	-	30.500
Total Obligation Authority *($ in Millions)*	**28.500**	**2.000**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**30.500**

Description:

The FY 2017 President's Budget approved Inc. 3.2B to procure long lead items required for Full Rate Production (FRP), scheduled to begin in 4th Qtr. FY 2018.

Exhibit P-40, Advance Procurement Budget Line Item Justification: PB 2019 Air Force	**Date:** February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft	**P-1 Line Item Number / Title:** F2232B / Increment 3.2b
Program Elements for Code B Items: 0207138F	**Other Related Program Elements:** 0605213F
Line Item MDAP/MAIS Code: 474	

Exhibits Schedule				Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-10	11100 / INCREMENT 3.2B			- / 28.500	- / 2.000	- / -	- / -	- / -	- / -
P-40	**Total Gross/Weapon System Cost**			**- / 28.500**	**- / 2.000**	**- / -**	**- / -**	**- / -**	**- / -**

Exhibits Schedule				FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-10	11100 / INCREMENT 3.2B			- / -	- / -	- / -	- / -	- / -	- / 30.500
P-40	**Total Gross/Weapon System Cost**			**- / -**	**- / -**	**- / -**	**- / -**	**- / -**	**- / 30.500**

*Title represents the P-10 Title for Advance Procurement.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Advance procurement of long lead items prevents a 16 month delay to start of full rate production (FRP) kit production.

Exhibit P-10, Advance Procurement Requirements Analysis (*page 1 - Budget Funding Justification*): PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F2232B / Increment 3.2b	**P-3a Number / Title:** 11100 / INCREMENT 3.2B

First System (2019) Award Date:	First System (2019) Completion Date:	Interval Between Systems:
February 2017	April 2017	2 Months

INCREMENT 3.2B	Production Leadtime (Months)	Prior Years (Each)	FY 2017 (Each)	FY 2018 (Each)	FY 2019 (Each)	FY 2020 (Each)	FY 2021 (Each)	FY 2022 (Each)	FY 2023 (Each)	To Complete (Each)	Total (Each)
Quantity	26	-	-	-	-	-	-	-	-	-	-

Cost Elements	When Required (Months)	Prior Years ($ M)	FY 2017 ($ M)	FY 2018 ($ M)	FY 2019 ($ M)	FY 2020 ($ M)	FY 2021 ($ M)	FY 2022 ($ M)	FY 2023 ($ M)	To Complete ($ M)	Total ($ M)
CFE											
Equipment	26	28.500	2.000	-	-	0.000	0.000	0.000	-	-	30.500
Total: CFE		*28.500*	*2.000*	*-*	*-*	*0.000*	*0.000*	*0.000*	*-*	*-*	*30.500*
Total Advance Procurement/Obligation Authority		**28.500**	**2.000**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**30.500**

Exhibit P-10, Advance Procurement Requirements Analysis (*page 2 - Budget Funding Justification*): PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** F2232B / Increment 3.2b	**P-3a Number / Title:** 11100 / INCREMENT 3.2B

Cost Elements	QPA (Each)	FY 2019					
		Production Leadtime (Months)	Unit Cost ($ M)	Contract Forecast Date	2019 Qty (Each)	For FY	Total Cost Request ($ M)
CFE							
Equipment	-						-
Total: CFE							-
Total Advance Procurement/Obligation Authority							**-**

Description:
FY 2017 Advance Procurement procures 1184 cable assemblies that are long lead items required for Full Rate (FRP) kit production scheduled to begin 3rd Qtr. FY 2018.

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft	**P-1 Line Item Number / Title:** KC046A / KC-46A Tanker

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0401221F	Other Related Program Elements: 0401221F

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	0.000	6.213	8.547	0.000	8.547	39.394	71.694	85.541	88.749	0.000	300.138
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	6.213	8.547	0.000	8.547	39.394	71.694	85.541	88.749	0.000	300.138
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**6.213**	**8.547**	**0.000**	**8.547**	**39.394**	**71.694**	**85.541**	**88.749**	**0.000**	**300.138**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The KC-46 will provide the capability to fuel joint and coalition receivers via a boom or drogue system on every mission and will also augment the airlift fleet with cargo, passenger, and aeromedical evacuation capabilities. The KC-46 will operate in day/night and adverse weather conditions to enable deployment, employment, sustainment, and redeployment of U.S. joint, allied, and coalition forces. The KC-46 will have communication, navigation, and surveillance equipment for world-wide operations; the capability to perform missions in chemical and biological environments; the ability to operate in up to medium threat environments with self-defense/protection (both active and passive) capabilities; and the necessary battle space awareness to mitigate survivability threats. The dynamics and mission urgency of the post-production environment requires the program to maintain flexible and responsive posture to support a broad range of mission support needs. The KC-46 will continue to identify, design, develop, integrate, verify, certify, produce, install, field, and sustain a comprehensive range of non-recurring and recurring post-production, air vehicle enhancements and field support needs. These needs may originate from programmed Mobility Air Force (MAF) requirements, Combatant Commander Joint or Urgent Operational Needs (JUON/UON), non-programmed Federal Aviation Administration (FAA) directives, or correction of deficiency reports.

The KC-46 will continue to develop, field, and sustain warfighter capabilities to meet evolving threats and mission support requirements through Block or discrete modification or modernization programs depending on mission urgency, available funding, and programmatic and technical risks. Post-production requirements can include, but will not be limited to, avionics and structural systems/ architecture and subsystem updates, general mission equipment updates and procurement, general sustainment support, studies and analyses, and correction of deficiency reports.

Justification:
FY 2019 funding consists of the integration of Airworthiness Directives (ADs)/Service Bulletins (SBs) and other reported issues to correct identified deficiencies, provide product improvements, and maintain Federal Aviation Administration (FAA) certification compliance for the aircraft. FY 2019 funding will also support Reliability and Maintainability (R&M), Safety Modifications, and Low Cost Mods (LCMs).

Other modifications to the KC-46 through the FYDP include, but are not limited to, R&M, Safety Mods, Pegasus Combat Capability (PC2) (M-Code Global Positioning System (GPS), Multifunctional Information Distribution Systems (MIDS) Enhancements, Advanced Communication Systems, Survivability, and Oxygen Bottles), requirements identified and supported by HHQ Enterprise Capability Collaboration Teams (i.e., High Value Airborne Asset [HVAA], Air Superiority 2030, and Multi-Domain Command and Control [MDC2]), ADs/SBs, and LCMs. Funding for To Complete is continuing.

LCM Funding for FY 2019 is a New Start.

Funding for this exhibit contained in PE 0401221F.

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft	**P-1 Line Item Number / Title:** KC046A / KC-46A Tanker

ID Code (A=Service Ready, B=Not Service Ready): B | **Program Elements for Code B Items:** 0401221F | **Other Related Program Elements:** 0401221F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	4601 / R&M Safety Mods (Safety)				- / -	- / -	- / -	- / -	- / -	- / -
P-40a***	4602 / Pegasus Combat Capability (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / -
P-40a***	99999X / Low Cost Modifications (Capability Improvement)				- / -	- / -	- / -	- / 2.000	- / -	- / 2.000
P-3a	1 / Airworthiness Directives (Service Life Extension)		B		- / -	- / -	- / 6.213	- / 6.547	- / 0.000	- / 6.547
P-40	**Total Gross/Weapon System Cost**				**- / -**	**- / 0.000**	**- / 6.213**	**- / 8.547**	**- / 0.000**	**- / 8.547**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	4601 / R&M Safety Mods (Safety)				- / 16.993	- / 43.741	- / 26.134	- / 21.757	- / -	- / 108.625
P-40a***	4602 / Pegasus Combat Capability (Capability Improvement)				- / 1.752	- / 1.890	- / 27.632	- / 29.197	- / -	- / 60.471
P-40a***	99999X / Low Cost Modifications (Capability Improvement)				- / 2.000	- / 2.000	- / 2.000	- / 2.000	- / -	- / 10.000
P-3a	1 / Airworthiness Directives (Service Life Extension)		B		- / 18.649	- / 24.063	- / 29.775	- / 35.795	- / 0.000	- / 121.042
P-40	**Total Gross/Weapon System Cost**				**- / 39.394**	**- / 71.694**	**- / 85.541**	**- / 88.749**	**- / 0.000**	**- / 300.138**

*** Although this is an Exhibit P-40a item, the actual exhibit is not included since all of the required information for this item is already being shown here.

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** KC046A / KC-46A Tanker	**Modification Number / Title:** 1 / Airworthiness Directives
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	-	6.213	6.547	0.000	6.547	18.649	24.063	29.775	35.795	0.000	121.042
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	6.213	6.547	0.000	6.547	18.649	24.063	29.775	35.795	0.000	121.042
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**6.213**	**6.547**	**0.000**	**6.547**	**18.649**	**24.063**	**29.775**	**35.795**	**0.000**	**121.042**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Airworthiness Directives (ADs), Service Bulletins (SBs), Service Letters (SLs), and Maintenance Tips (MTs)

Funding in support of production, installation, and fielding of emerging ADs, SBs, SLs, and MTs as issued, or mandated by the FAA, to correct identified deficiencies, provide product improvements, and maintain FAA certification requirements for the KC-46 aircraft.

This funding request will support potential DMS and obsolescence solutions, to include if optimal, life-of-type buys or bridge buys limited to the program of record quantity.

Funding for this exhibit contained in PE 0401221F.

Milestone/Development Status

The KC-46 program held a successful Milestone C (MS C) Defense Acquisition Board (DAB) on 12 Aug 2016.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** KC046A / KC-46A Tanker	**Modification Number / Title:** 1 / Airworthiness Directives
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: KC-46	**Modification Type:** Service Life Extension	**Related RDT&E PEs:** 0401221F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: KC-46 Airworthiness Directives												
A Kits												
Recurring												
KC-46 Airworthiness Directives:INSTALL KITS Group A (Active)	- / -	- / -	- / 6.213	- / 6.547	- / -	- / 6.547	- / 18.649	- / 24.063	- / 29.775	- / 35.795	- / -	- / 121.042
Subtotal: Recurring	*- / -*	*- / -*	*- / 6.213*	*- / 6.547*	*- / -*	*- / 6.547*	*- / 18.649*	*- / 24.063*	*- / 29.775*	*- / 35.795*	*- / -*	*- / 121.042*
Subtotal: KC-46 Airworthiness Directives	*- / -*	*- / -*	*- / 6.213*	*- / 6.547*	*- / -*	*- / 6.547*	*- / 18.649*	*- / 24.063*	*- / 29.775*	*- / 35.795*	*- / -*	*- / 121.042*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / 6.213*	*- / 6.547*	*- / -*	*- / 6.547*	*- / 18.649*	*- / 24.063*	*- / 29.775*	*- / 35.795*	*- / -*	*- / 121.042*
Installation												
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*
Total												
Total Cost (Procurement + Support + Installation)	**-**	**-**	**6.213**	**6.547**	**0.000**	**6.547**	**18.649**	**24.063**	**29.775**	**35.795**	**0.000**	**121.042**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	**P-1 Line Item Number / Title:** KC046A / KC-46A Tanker	**Modification Number / Title:** 1 / Airworthiness Directives

ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**

Modification Item 1 of 1: KC-46 Airworthiness Directives

Manufacturer Information

Manufacturer Name: Unknown	Manufacturer Location: Unknown
Administrative Leadtime *(in Months)*: 0	Production Leadtime *(in Months)*: 0

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation (Organic): Org/Intermediate	**Installation Quantity:** 0

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 3: Airlift Aircraft	**P-1 Line Item Number / Title:** C00500 / C-5

ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0401119F	**Other Related Program Elements:** 0401119F

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	24.192	36.592	77.845	0.000	77.845	71.603	40.467	36.080	36.737	0.000	323.516
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	24.192	36.592	77.845	0.000	77.845	71.603	40.467	36.080	36.737	0.000	323.516
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**24.192**	**36.592**	**77.845**	**0.000**	**77.845**	**71.603**	**40.467**	**36.080**	**36.737**	**0.000**	**323.516**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This line item funds modifications to the C-5 aircraft. The C-5 carries outsized and heavy cargo (tanks, helicopters, etc.) between main operating bases. Additionally, the aircraft is capable of carrying 73 troops and 36 standard 463-L pallets. Modifications increase operational capability while improving flight safety, reliability, and maintainability.

There are 52 C-5B/C/M aircraft in the Air Force fleet as of 31 August 2017. The C-5 fleet was delivered to the Air Force from 1969 to 1989. Initial service life for the aircraft was 30,000 flight hours. Service life is extended out to 2040 as a result of the reliability enhancement and re-engining program (RERP) modification.

Funding may be used to address Diminishing Manufacturing Sources(DMS) issues.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L.110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Funding for this exhibit is contained in PE 0401119F.

The CNS/ATM program (Production) is a new start in FY19.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	18.156	30.403	61.490	0.000	61.490	58.183	32.562	30.630	33.998
AFR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	6.036	6.189	16.355	-	16.355	13.421	7.905	5.450	2.739
Total:	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force			Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 3: Airlift Aircraft		P-1 Line Item Number / Title: C00500 / C-5	
ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0401119F	Other Related Program Elements: 0401119F	
Line Item MDAP/MAIS Code: N/A			

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Secondary Distribution	Total Obligation Authority	24.192	36.592	77.845	0.000	77.845	71.604	40.467	36.080	36.737

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	**Date:** February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 3: Airlift Aircraft	**P-1 Line Item Number / Title:** C00500 / C-5

ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0401119F	**Other Related Program Elements:** 0401119F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	**Title***	**Subexhibits**	**ID CD**	**MDAP/ MAIS Code**	**Quantity / Total Cost** *(Each) I ($ M)*	**Quantity / Total Cost** *(Each) I ($ M)*	**Quantity / Total Cost** *(Each) I ($ M)*	**Quantity / Total Cost** *(Each) I ($ M)*	**Quantity / Total Cost** *(Each) I ($ M)*	**Quantity / Total Cost** *(Each) I ($ M)*
P-40a***	99999X / Low Cost Modifications (Capability Improvement)				- / -	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-3a	8966 / C-5 Mission Systems Equipment- Lavatory (Other)		B		- / 0.000	- / 3.332	- / 6.129	- / 10.943	- / 0.000	- / 10.943
P-3a	8967 / Mission Computer and Weather Radar (Other)		B		- / 0.000	- / 20.860	- / 30.463	- / 38.289	- / 0.000	- / 38.289
P-3a	8968 / C-5M Communication Navigation Surveillance/Air Traffic Management (CNS/ATM) (Capability Improvement)		B		- / 0.000	- / 0.000	- / 0.000	- / 28.613	- / 0.000	- / 28.613
P-40	**Total Gross/Weapon System Cost**				**- / 0.000**	**- / 24.192**	**- / 36.592**	**- / 77.845**	**- / 0.000**	**- / 77.845**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	**Title***	**Subexhibits**	**ID CD**	**MDAP/ MAIS Code**	**Quantity / Total Cost** *(Each) I ($ M)*	**Quantity / Total Cost** *(Each) I ($ M)*	**Quantity / Total Cost** *(Each) I ($ M)*	**Quantity / Total Cost** *(Each) I ($ M)*	**Quantity / Total Cost** *(Each) I ($ M)*	**Quantity / Total Cost** *(Each) I ($ M)*
P-40a***	99999X / Low Cost Modifications (Capability Improvement)				- / 0.000	- / 1.999	- / 0.000	- / 0.000	- / -	- / 1.999
P-3a	8966 / C-5 Mission Systems Equipment- Lavatory (Other)		B		- / 9.108	- / 13.159	- / 5.100	- / 0.000	- / -	- / 47.771
P-3a	8967 / Mission Computer and Weather Radar (Other)		B		- / 36.406	- / 5.040	- / 7.603	- / 0.840	- / -	- / 139.501
P-3a	8968 / C-5M Communication Navigation Surveillance/Air Traffic Management (CNS/ATM) (Capability Improvement)		B		- / 26.090	- / 20.269	- / 23.377	- / 35.897	- / 0.000	- / 134.246
P-40	**Total Gross/Weapon System Cost**				**- / 71.603**	**- / 40.467**	**- / 36.080**	**- / 36.737**	**- / 0.000**	**- / 323.516**

*** Although this is an Exhibit P-40a item, the actual exhibit is not included since all of the required information for this item is already being shown here.

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 3	**P-1 Line Item Number / Title:** C00500 / C-5	**Modification Number / Title:** 8966 / C-5 Mission Systems Equipment-Lavatory
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	3.332	6.129	10.943	0.000	10.943	9.108	13.159	5.100	0.000	-	47.771
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	3.332	6.129	10.943	0.000	10.943	9.108	13.159	5.100	0.000	-	47.771
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**3.332**	**6.129**	**10.943**	**0.000**	**10.943**	**9.108**	**13.159**	**5.100**	**0.000**	**-**	**47.771**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	1.052	-	-	-	-	-	-	-	-	-	1.052
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The C-5(P-3A Mod 8966), Mission System Equipment(MSE)Lavatory program replaces the three lavatories and their associated systems in each aircraft with a commercial off-the-shelf (COTS) solution, which improves aircraft availability for the C-5 fleet. The current lavatory is the original design dating back to the inception of the C-5 in the 1960s. The existing fiberglass tanks are old and have exceeded their useful life. The lavatory requires extensive maintenance personnel hours to maintain. Parts obsolescence limits the purchase of spare parts such as pump motors, drain valves, etc. Structural corrosion due to leaks (Sodium Hypochlorite/blue water), continues to put a strain on maintenance resources in terms of labor hours and cost of repairs. The updated COTS lavatory will improve aircraft availability while providing the war-fighter with a reliable system that will last the projected remaining life of the C-5. This production program mitigates parts obsolescence of the existing system and corrects malfunctions currently occurring to the main landing gear system and avionics system components. Poor design and age of existing component parts have enabled sodium hypochlorite to leak into the aircraft structure, which in turn cause extensive structural and avionics corrosion. Corrosion of the avionics components has led to burnt wires and circuit cards in the main landing gear sequence panel, which has resulted in shorted wires to the system. Program office implementation of stop-gap measures to fix the major causes of leaks and implementation of preventive measures to protect the surrounding structures have not alleviated the issues. Diminishing manufacturing source (DMS) issues, as a result of parts obsolescence and data right issues, are preventing the procurement of replacement parts for the current system. System degradation and extra maintenance are causing increased aircraft downtime. A COTS solution to the problem will be implemented for a long-term, sustainable mission system equipment lavatory. The Lavatory requirement has been validated with the approved AMC 1067 11-206.

"This funding request will support potential DMS and obsolescence solutions, to include if optimal, life of type buys or bridge buys limited to the program of record quantity."

Milestone/Development Status

An engineering trade study was accomplished by the prime contractor(WYLE)to determine the best commercial off-the-shelf (COTS) alternative and to conduct a proof of concept effort to ensure the COTS lavatory could be retrofitted onto the C-5. The first trial installation successfully completed in May 2015 and after some minor redesign on two components, the second production validation/verification successfully completed at Robins AFB in March 2016. IOT&E completed on 31 March 2016. The technical data package (TDP) was completed and delivered June 2016. The remaining 50 C-5Ms will be modified in conjunction with organic depot level maintenance with installations scheduled to begin in July 2018 and run through completion in FY 2023.

"This funding request will support potential DMS and obsolescence solutions, to include if optimal, life of type buys or bridge buys limited to the program of record quantity."

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 3	**P-1 Line Item Number / Title:** C00500 / C-5	**Modification Number / Title:** 8966 / C-5 Mission Systems Equipment-Lavatory
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	2.082	4.960	8.125	-	8.125	6.242	9.803	3.444	-
AFR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	1.250	1.169	2.818	-	2.818	2.866	3.356	1.656	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**3.332**	**6.129**	**10.943**	**0.000**	**10.943**	**9.108**	**13.159**	**5.100**	**0.000**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 3	**P-1 Line Item Number / Title:** C00500 / C-5	**Modification Number / Title:** 8966 / C-5 Mission Systems Equipment-Lavatory
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: C-5M	**Modification Type:** Other	**Related RDT&E PEs:** 0401119F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Lavatory Kit												
B Kits												
Recurring												
Lavatory Kit:EQUIPMENT Group B (Active)	- / -	5 / 2.082	4 / 1.600	7 / 2.884	- / -	7 / 2.884	8 / 3.392	10 / 4.370	0 / 0.000	- / -	- / -	34 / 14.328
Lavatory Kit:EQUIPMENT Group B (Reserve)	- / -	3 / 1.250	- / -	5 / 2.060	- / -	5 / 2.060	4 / 1.696	4 / 1.748	0 / 0.000	- / -	- / -	16 / 6.754
Subtotal: Recurring	*- / -*	*- / 3.332*	*- / 1.600*	*- / 4.944*	*- / -*	*- / 4.944*	*- / 5.088*	*- / 6.118*	*- / 0.000*	*- / -*	*- / -*	*- / 21.082*
Subtotal: Lavatory Kit	*- / -*	*- / 3.332*	*- / 1.600*	*- / 4.944*	*- / -*	*- / 4.944*	*- / 5.088*	*- / 6.118*	*- / 0.000*	*- / -*	*- / -*	*- / 21.082*
Subtotal: Procurement, All Modification Items	*- / -*	*- / 3.332*	*- / 1.600*	*- / 4.944*	*- / -*	*- / 4.944*	*- / 5.088*	*- / 6.118*	*- / 0.000*	*- / -*	*- / -*	*- / 21.082*
Support *(All Modification Items)*												
Change Orders	- / -	- / -	- / 0.981	- / 1.909	- / -	- / 1.909	- / 0.091	- / 2.900	- / 0.100	- / -	- / -	- / 5.981
PMA - Other Gov't Costs	- / -	- / -	- / 0.428	- / 0.300	- / -	- / 0.300	- / 0.029	- / 0.121	- / 0.032	- / -	- / -	- / 0.910
Subtotal: Support	*- / -*	*- / -*	*- / 1.409*	*- / 2.209*	*- / -*	*- / 2.209*	*- / 0.120*	*- / 3.021*	*- / 0.132*	*- / -*	*- / -*	*- / 6.891*
Installation												
Modification Item 1 of 1: Lavatory Kit	- / -	- / -	8 / 3.120	10 / 3.790	- / -	10 / 3.790	10 / 3.900	10 / 4.020	12 / 4.968	- / -	- / -	50 / 19.798
Subtotal: Installation	*- / -*	*- / -*	*8 / 3.120*	*10 / 3.790*	*- / -*	*10 / 3.790*	*10 / 3.900*	*10 / 4.020*	*12 / 4.968*	*- / -*	*- / -*	*50 / 19.798*
Total												
Total Cost (Procurement + Support + Installation)	**0.000**	**3.332**	**6.129**	**10.943**	**0.000**	**10.943**	**9.108**	**13.159**	**5.100**	**0.000**	**-**	**47.771**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 3	**P-1 Line Item Number / Title:** C00500 / C-5	**Modification Number / Title:** 8966 / C-5 Mission Systems Equipment-Lavatory

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 1: Lavatory Kit

Manufacturer Information

Manufacturer Name: Small Business (Kit Build)

Manufacturer Location: WRALC/Unit

Administrative Leadtime *(in Months)*: 1

Production Leadtime *(in Months)*: 9

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Oct 2017	Mar 2018	Nov 2018	Nov 2019	Nov 2020		
Delivery Dates	Jul 2018	Dec 2018	Aug 2019	Aug 2020	Aug 2021		

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	8 / 3.120	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 3.120
FY 2018	- / -	- / -	- / -	4 / 1.516	- / -	4 / 1.516	- / -	- / -	- / -	- / -	- / -	4 / 1.516
FY 2019	- / -	- / -	- / -	6 / 2.274	- / -	6 / 2.274	6 / 2.340	- / -	- / -	- / -	- / -	12 / 4.614
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	4 / 1.560	8 / 3.216	- / -	- / -	- / -	12 / 4.776
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.804	12 / 4.968	- / -	- / -	14 / 5.772
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	8 / 3.120	10 / 3.790	- / -	10 / 3.790	10 / 3.900	10 / 4.020	12 / 4.968	- / -	- / -	50 / 19.798

Installation Schedule

		FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023					
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	0	-	-	-	-	-	-	-	8	-	-	5	5	-	-	6	4	-	-	4	6	5	3	-	4	-	-	-	-	0	50
Out	0	-	-	-	-	-	-	-	8	-	-	5	5	-	-	6	4	-	-	4	6	5	3	-	4	-	-	-	-	0	50

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 3	**P-1 Line Item Number / Title:** C00500 / C-5	**Modification Number / Title:** 8967 / Mission Computer and Weather Radar
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	20.860	30.463	38.289	0.000	38.289	36.406	5.040	7.603	0.840	-	139.501
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	20.860	30.463	38.289	0.000	38.289	36.406	5.040	7.603	0.840	-	139.501
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**20.860**	**30.463**	**38.289**	**0.000**	**38.289**	**36.406**	**5.040**	**7.603**	**0.840**	**-**	**139.501**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	1.559	2.172	2.111	-	2.111	2.294	-	-	-	-	8.136
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The core mission computer (CMC) and weather radar (WxRadar) requirement is for the modification of 50 C-5M aircraft. The CMC/WxRadar replacement program is a comprehensive permanent sustainment effort, as described in validated requirements per AMC AF Form 1067s 11-152 and 11-153, to mitigate the obsolescence of the current CMC and WxRadar. This effort centers around modifying the current CMC, which has reached maximum processing capacity, to obtain sufficient capability to allow integration of the WxRadar with margin for growth to accommodate future requirements. This includes requirements to meet calendar year 2020 FAA Automatic Dependent Surveillance-Broadcast (ADS-B) Out and communication, navigation, surveillance/air traffic management (CNS/ATM) requirements. The program will modify a total of 52 aircraft, 2 during Engineering and Manufacturing Development and 50 during Production.

The CMC modification is necessary to keep the C-5M worldwide deployable. This effort replaces the APS-133 WxRadar, resolving severe diminishing manufacturing source (DMS) issues, using the Rockwell Collins WXR-2100 commercial off-the-shelf WxRadar, which is common to other aircraft platforms, and provides the same capability as the APS-133.

To accomplish the CMC modification, the current core processing module (CPM) cards in the CMC are replaced with new Honeywell CPM II cards. The current CMC has limited throughput, cannot accept additional processing requirements, and has less than 20% spare processing and memory capability. The new CMC will have an 80%(threshold) to 120% (objective) spare capacity.

Failure to modify the CMC and replace the WxRadar will result in recently modified C-5Ms not being worldwide capable due to 2020 ADS-B Out and CNS/ATM mandates and the severe DMS/parts obsolescence issues of the current radar.

The CMC/WxRadar program is the baseline for all future modifications to the C-5. Equipment DMS issues will be resolved to support continued production and installation of requirements for the C-5M fleet.

Available funds in this modification are used for program management administration, change orders, and other government costs such as travel, directorate support, government furnished equipment (GFE), and over and above costs. Group B costs include System Engineering/Program Management (SEPM) causing a variation in cost per kit.

Funding may be used to address Diminishing Manufacturing Sources (DMS) issues through analysis, bridge buys, life-of-type buys, etc. Installation costs vary due to the installation strategy of completing the modification as a standalone action or combining with a maintenance effort such as programmed depot maintenance (PDM).

FY19 kit buys include quantities of Versatile Integrated Avionics and Avionics Interface Unit's.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 3	**P-1 Line Item Number / Title:** C00500 / C-5	**Modification Number / Title:** 8967 / Mission Computer and Weather Radar
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

There are a total of 7 trainers to be updated; 5 weapon systems trainers (WST) and 2 aircrew maintenance system trainers (AMST).

Milestone/Development Status

The development strategy has considered every opportunity to use commercial components to modernize the C-5M to meet or exceed required system performance and support in order to sustain the current and future capabilities of the weapon system. The prime contractor, Lockheed Martin Aero (LMA), is performing Engineering and Manufacturing Development (EMD) activities of the CMC and integration of the WxRadar on two C-5Ms.

RDT&E Milestones
Development Test and Evaluation Complete: 3Q 2017
Operation Test and Evaluation Complete: 4Q 2017
Technical Data Package Delivery: 4Q 2017
Milestone C Complete: 4Q 2018

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	16.074	25.443	29.961	-	29.961	30.431	3.649	6.743	0.840
AFR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	4.786	5.020	8.328	-	8.328	5.975	1.391	0.860	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**20.860**	**30.463**	**38.289**	**0.000**	**38.289**	**36.406**	**5.040**	**7.603**	**0.840**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 3	**P-1 Line Item Number / Title:** C00500 / C-5	**Modification Number / Title:** 8967 / Mission Computer and Weather Radar
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: C-5M	**Modification Type:** Other	**Related RDT&E PEs:** 0401119F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0401119F	2 / 98.712	- / 11.837	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 110.549
Procurement												
Modification Item 1 of 1: CMC/WxRadar												
A Kits												
Recurring												
CMC/WxRadar:INSTALL KITS Group A (Active)	- / -	9 / 1.132	9 / 1.188	8 / 1.400	- / -	8 / 1.400	8 / 1.073	- / -	- / -	- / -	- / -	34 / 4.793
CMC/WxRadar:INSTALL KITS Group A (Reserve)	- / -	4 / 0.503	4 / 0.528	5 / 0.875	- / -	5 / 0.875	3 / 0.402	- / -	- / -	- / -	- / -	16 / 2.308
Subtotal: Recurring	*- / -*	*- / 1.635*	*- / 1.716*	*- / 2.275*	*- / -*	*- / 2.275*	*- / 1.475*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 7.101*
B Kits												
Recurring												
CMC/WxRadar:EQUIPMENT Group B (Active)	- / 0.000	9 / 9.635	9 / 10.107	8 / 11.926	- / -	8 / 11.926	8 / 9.134	- / -	- / -	- / -	- / -	34 / 40.802
CMC/WxRadar:EQUIPMENT Group B (Guard)	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000
CMC/WxRadar:EQUIPMENT Group B (Reserve)	- / 0.000	4 / 4.283	4 / 4.492	5 / 7.453	- / -	5 / 7.453	3 / 3.425	- / -	- / -	- / -	- / -	16 / 19.653
Subtotal: Recurring	*- / 0.000*	*- / 13.918*	*- / 14.599*	*- / 19.379*	*- / -*	*- / 19.379*	*- / 12.559*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 60.455*
Subtotal: CMC/WxRadar	*- / 0.000*	*- / 15.553*	*- / 16.315*	*- / 21.654*	*- / -*	*- / 21.654*	*- / 14.034*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 67.556*
Subtotal: Procurement, All Modification Items	*- / 0.000*	*- / 15.553*	*- / 16.315*	*- / 21.654*	*- / -*	*- / 21.654*	*- / 14.034*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 67.556*
Support *(All Modification Items)*												
GROUP A: TOTAL NONRECURRING	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000
GROUP B: TOTAL NONRECURRING	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000
Change Orders	- / -	- / 0.743	- / 1.610	- / 1.363	- / -	- / 1.363	- / 1.160	- / 0.260	- / 0.177	- / 0.004	- / -	- / 5.317
Data	- / -	- / 0.034	- / 1.732	- / 1.011	- / -	- / 1.011	- / 0.898	- / 0.232	- / -	- / -	- / -	- / 3.907
SIM/TRAINER	- / -	0 / 0.000	3 / 5.782	3 / 7.557	- / -	3 / 7.557	1 / 3.695	- / -	- / -	- / -	- / -	7 / 17.034
SUPPORT-EQUIP	- / -	- / 0.000	- / 1.440	- / 0.029	- / -	- / 0.029	- / 0.036	- / 0.070	- / -	- / -	- / -	- / 1.575
PMA - Other Gov't Costs	- / -	- / 0.334	- / 0.345	- / 0.614	- / -	- / 0.614	- / 0.522	- / 0.117	- / 0.080	- / 0.002	- / -	- / 2.014
PMA - Contractor Services	- / -	- / 0.854	- / 0.882	- / 1.568	- / -	- / 1.568	- / 1.334	- / 0.299	- / 0.203	- / 0.005	- / -	- / 5.145
A&AS	- / -	- / 0.446	- / 0.460	- / 0.818	- / -	- / 0.818	- / 0.696	- / 0.156	- / 0.106	- / 0.002	- / -	- / 2.684
OTHER GOVT	- / -	- / 2.382	- / 1.897	- / 3.675	- / -	- / 3.675	- / 7.049	- / 0.289	- / 3.883	- / 0.827	- / -	- / 20.002
ICS-Material	- / -	- / 0.324	- / 0.000	- / 0.000	- / -	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / 0.324
ICS-Labor	- / -	- / 0.190	- / 0.000	- / 0.000	- / -	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / 0.190
Subtotal: Support	*- / 0.000*	*0 / 5.307*	*3 / 14.148*	*3 / 16.635*	*- / -*	*3 / 16.635*	*1 / 15.390*	*- / 1.423*	*- / 4.449*	*- / 0.840*	*- / -*	*7 / 58.192*

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 3	**P-1 Line Item Number / Title:** C00500 / C-5	**Modification Number / Title:** 8967 / Mission Computer and Weather Radar
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: C-5M	**Modification Type:** Other	**Related RDT&E PEs:** 0401119F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Installation												
Modification Item 1 of 1: CMC/WxRadar	- / -	- / -	- / -	- / -	- / -	- / -	26 / 6.982	13 / 3.617	11 / 3.154	- / -	- / -	50 / 13.753
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*26 / 6.982*	*13 / 3.617*	*11 / 3.154*	*- / -*	*- / -*	*50 / 13.753*
Total												
Total Cost (Procurement + Support + Installation)	**0.000**	**20.860**	**30.463**	**38.289**	**0.000**	**38.289**	**36.406**	**5.040**	**7.603**	**0.840**	**-**	**139.501**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 3	**P-1 Line Item Number / Title:** C00500 / C-5	**Modification Number / Title:** 8967 / Mission Computer and Weather Radar

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 1: CMC/WxRadar

Manufacturer Information

Manufacturer Name: Source Selection

Manufacturer Location: TBD

Administrative Leadtime *(in Months)*: 11

Production Leadtime *(in Months)*: 10

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Oct 2018	Oct 2018	Sep 2019	Sep 2020			
Delivery Dates	Aug 2019	Aug 2019	Jul 2020	Jul 2021			

Installation Information

Method of Implementation: Contractor Facility

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	13 / 3.490	- / -	- / -	- / -	- / -	13 / 3.490
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	13 / 3.492	- / -	- / -	- / -	- / -	13 / 3.492
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	13 / 3.617	- / -	- / -	- / -	13 / 3.617
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	11 / 3.154	- / -	- / -	11 / 3.154
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	26 / 6.982	13 / 3.617	11 / 3.154	- / -	- / -	50 / 13.753

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	-	5	7	6	8	3	4	2	4	4	3	2	2	-	-	-	-	0	50
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	3	1	5	6	5	6	5	3	5	4	3	-	1	0	50

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 3	**P-1 Line Item Number / Title:** C00500 / C-5	**Modification Number / Title:** 8968 / C-5M Communication Navigation Surveillance/Air Traffic Management (CNS/ATM)
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	0.000	0.000	28.613	0.000	28.613	26.090	20.269	23.377	35.897	0.000	134.246
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	0.000	0.000	28.613	0.000	28.613	26.090	20.269	23.377	35.897	0.000	134.246
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**0.000**	**0.000**	**28.613**	**0.000**	**28.613**	**26.090**	**20.269**	**23.377**	**35.897**	**0.000**	**134.246**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	0.588	-	0.789	-	0.789	0.754	7.979	-	-	-	10.110
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This program, P-3A Mod 8968, C-5M Communication Navigation Surveillance/Air Traffic Management (CNS/ATM), is a new start.
The C-5 communication, navigation, surveillance/air traffic management (CNS/ATM) program is a comprehensive effort to ensure appropriate system design architectures are developed and installed on the C-5 to allow aircraft operation in accordance with civil airspace access mandates for the US national airspace system (NAS) and international civil airspace. Also, the program will add equipment to meet outstanding National Security Agency (NSA) mandates for encryption of voice communications. The CNS/ATM program ensures system standardization and interoperability with other DoD systems to the maximum extent possible and directly supports airworthiness certification of the C-5. CNS/ATM requirements include, but are not limited to, capabilities such as automatic dependent surveillance-broadcast out (ADS-B Out), identification friend or foe (IFF) mode 5, satellite communication equipment replacement, and beyond line-of-sight voice radio replacement. It is anticipated equipment will be predominately commercial off-the-shelf or non-developmental items. The current ARC-210 radio for very high frequency (VHF) voice communications is facing diminishing manufacturing source (DMS) issues and will no longer be capable of providing secure voice communications due to the development of new crypto algorithms. The addition of next generation ARC-210 radios and associated cryptologic equipment will enable the C-5 to meet NSA mandates for secure communications and allow aircrews to continue to communicate securely over VHF, ultra high frequency (UHF), high frequency (HF), or MILSATCOM. The current generation of satellites support services used on the C-5 to provide oceanic controller/pilot data link communications (CPDLCs) to air traffic control and aircraft communications addressing and reporting system (ACARS) beyond-line-of-sight command and control messages will no longer be functional after 2016. The next generation of satellites will accommodate legacy C-5 SATCOM equipment for an interim period of time to allow for integration of upgraded SATCOM equipment compatible with this satellite constellation. Without this modification, the C-5 will not be able to fly oceanic tracks and will not be able to meet aircraft separation distance requirements for civil airspace access. ADS-B Out is a next generation surveillance technology that transitions key aspects of air traffic control from terrestrial based technologies to satellite enabled technologies to provide controllers a more accurate picture of aircraft positioning. ADS-B Out will allow aircraft to provide continuous broadcast of aircraft position to both controllers and other aircraft equipped with ADS-B In capable avionics. International and US NAS mandates for ADS-B Out for civil airspace access call for equipage by calendar year 2020. Fifty-two (52) C-5M aircraft will receive this modification in calendar year 2019. The following requirement documents for C-5M CNS/ATM upgrade components were approved by HAF/A5 on 7 Nov 14: AMC AF Form 1067s 14-067, 12-067, 10-034, and 09-015. There is a total of 7 trainers, 5 are weapon systems trainers (WST) and 2 are aircrew maintenance system trainers (AMST). Change Orders also include SE/PM and O&A. OGC's also include DMS. Funding may be used to address DMS issues through analysis, bridge buys, life-of-type buys, etc. All installations planned to be performed by PDM (Organic).

Available funds in this modification are used for program management administration, change orders, and other government costs such as travel, directorate support, government furnished equipment (GFE), and over and above costs.

ADS-B Out software and hardware upgrade modifications will be done in FY19 and FY20 to meet mandates.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 3	**P-1 Line Item Number / Title:** C00500 / C-5	**Modification Number / Title:** 8968 / C-5M Communication Navigation Surveillance/Air Traffic Management (CNS/ATM)

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Milestone/Development Status

- Preliminary design review (PDR) July 2017
- Critical design review (CDR) September 2017
- DT&E July 2018 (Start Date)
- OT&E July 2019 (Start Date)
- MS-C June 2019
- Production contract award Jul 2019

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	23.404	-	23.404	21.510	17.111	20.443	33.158
AFR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	5.209	-	5.209	4.580	3.158	2.934	2.739
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**0.000**	**0.000**	**28.613**	**0.000**	**28.613**	**26.090**	**20.269**	**23.377**	**35.897**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 3	**P-1 Line Item Number / Title:** C00500 / C-5	**Modification Number / Title:** 8968 / C-5M Communication Navigation Surveillance/Air Traffic Management (CNS/ATM)
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: C-5M	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0401119F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0401119F	2 / 15.363	- / 53.415	- / 22.758	- / 25.071	- / -	- / 25.071	- / -	- / -	- / -	- / -	- / -	2 / 116.607
Procurement												
Modification Item 1 of 1: CNS/ATM												
A Kits												
Recurring												
CNS/ATM:INSTALL KITS Group A (Active)	- / -	- / -	- / -	14 / 0.826	- / -	14 / 0.826	14 / 0.850	3 / 0.187	1 / 0.064	2 / 0.132	- / -	34 / 2.059
CNS/ATM:INSTALL KITS Group A (Reserve)	- / -	- / -	- / -	7 / 0.413	- / -	7 / 0.413	5 / 0.303	- / -	2 / 0.129	2 / 0.132	- / -	16 / 0.977
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / 1.239*	*- / -*	*- / 1.239*	*- / 1.153*	*- / 0.187*	*- / 0.193*	*- / 0.264*	*- / -*	*- / 3.036*
B Kits												
Recurring												
CNS/ATM:EQUIPMENT Group B (Active)	- / -	- / -	- / -	14 / 9.591	- / -	14 / 9.591	14 / 9.385	3 / 2.060	1 / 0.719	2 / 1.407	- / -	34 / 23.162
CNS/ATM:EQUIPMENT Group B (Reserve)	- / -	- / -	- / -	7 / 4.796	- / -	7 / 4.796	5 / 3.352	- / -	2 / 1.438	2 / 1.407	- / -	16 / 10.993
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / 14.387*	*- / -*	*- / 14.387*	*- / 12.737*	*- / 2.060*	*- / 2.157*	*- / 2.814*	*- / -*	*- / 34.155*
Subtotal: CNS/ATM	*- / -*	*- / -*	*- / -*	*- / 15.626*	*- / -*	*- / 15.626*	*- / 13.890*	*- / 2.247*	*- / 2.350*	*- / 3.078*	*- / -*	*- / 37.191*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / -*	*- / 15.626*	*- / -*	*- / 15.626*	*- / 13.890*	*- / 2.247*	*- / 2.350*	*- / 3.078*	*- / -*	*- / 37.191*
Support *(All Modification Items)*												
SUPPORT-EQUIP	- / -	- / -	- / -	- / 0.490	- / -	- / 0.490	- / 1.009	- / 0.778	- / 0.267	- / -	- / -	- / 2.544
ICS-Labor	- / -	- / -	- / -	- / 0.000	- / -	- / 0.000	- / 0.451	- / 0.550	- / 2.862	- / -	- / -	- / 3.863
ICS-Material	- / -	- / -	- / -	- / 0.000	- / -	- / 0.000	- / 0.628	- / 0.700	- / 0.996	- / -	- / -	- / 2.324
SIM/TRAINER	- / -	- / -	- / -	5 / 10.037	- / -	5 / 10.037	2 / 3.129	- / -	- / -	- / -	- / -	7 / 13.166
Data	- / -	- / -	- / -	- / 0.455	- / -	- / 0.455	- / 0.422	- / 0.070	- / 0.075	- / 0.106	- / -	- / 1.128
Change Orders	- / -	- / -	- / -	- / 1.167	- / -	- / 1.167	- / 1.545	- / 1.226	- / 2.495	- / 23.639	- / -	- / 30.072
A&AS	- / -	- / -	- / -	- / 0.000	- / -	- / 0.000	- / 1.386	- / 4.315	- / 4.533	- / 5.762	- / -	- / 15.996
OTHER GOVT	- / -	- / -	- / -	- / 0.588	- / -	- / 0.588	- / 1.050	- / 1.091	- / 1.345	- / 1.262	- / -	- / 5.336
PMA - Other Gov't Costs	- / -	- / -	- / -	- / 0.000	- / -	- / 0.000	- / 0.010	- / 0.011	- / 0.000	- / 0.000	- / -	- / 0.021
PMA - Contractor Services	- / -	- / -	- / -	- / 0.000	- / -	- / 0.000	- / 0.008	- / 0.009	- / 0.000	- / 0.000	- / -	- / 0.017
Type 1 Training	- / -	- / -	- / -	- / 0.250	- / -	- / 0.250	- / 0.250	- / 0.250	- / 0.250	- / 0.250	- / -	- / 1.250
Subtotal: Support	*- / -*	*- / -*	*- / -*	*5 / 12.987*	*- / -*	*5 / 12.987*	*2 / 9.888*	*- / 9.000*	*- / 12.823*	*- / 31.019*	*- / -*	*7 / 75.717*
Installation												

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 3	**P-1 Line Item Number / Title:** C00500 / C-5	**Modification Number / Title:** 8968 / C-5M Communication Navigation Surveillance/Air Traffic Management (CNS/ATM)

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Models of Systems Affected: C-5M

Modification Type: Capability Improvement

Related RDT&E PEs: 0401119F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Modification Item 1 of 1: CNS/ATM	- / -	- / -	- / -	- / -	- / -	- / -	5 / 2.312	20 / 9.022	18 / 8.204	3 / 1.800	4 / 0.000	50 / 21.338
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*5 / 2.312*	*20 / 9.022*	*18 / 8.204*	*3 / 1.800*	*4 / -*	*50 / 21.338*
Total												
Total Cost (Procurement + Support + Installation)	**0.000**	**0.000**	**0.000**	**28.613**	**0.000**	**28.613**	**26.090**	**20.269**	**23.377**	**35.897**	**0.000**	**134.246**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 3	**P-1 Line Item Number / Title:** C00500 / C-5	**Modification Number / Title:** 8968 / C-5M Communication Navigation Surveillance/Air Traffic Management (CNS/ATM)

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 1: CNS/ATM

Manufacturer Information

Manufacturer Name: Lockheed Martin Aero

Manufacturer Location: Marietta, GA

Administrative Leadtime *(in Months)*: 8

Production Leadtime *(in Months)*: 15

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates			Jun 2019	Jun 2020	Jun 2021	Jun 2022	Jun 2023
Delivery Dates			Sep 2020	Sep 2021	Sep 2022	Sep 2023	Sep 2024

Installation Information

Method of Implementation: Depot Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	5 / 2.312	16 / 7.218	- / -	- / -	- / -	21 / 9.530
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 1.804	15 / 6.837	- / -	- / -	19 / 8.641
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 1.367	- / -	- / -	3 / 1.367
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 1.800	- / -	3 / 1.800
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 0.000	4 / 0.000
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	5 / 2.312	20 / 9.022	18 / 8.204	3 / 1.800	4 / 0.000	50 / 21.338

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	5	4	7	4	6	5	4	3	-	-	-	3	4	50
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	4	4	6	5	6	5	4	5	2	-	-	3	4	50

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 3: Airlift Aircraft	**P-1 Line Item Number / Title:** C005M0 / C-5M

ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0401119F	**Other Related Program Elements:** 0401119F

Line Item MDAP/MAIS Code: 327

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	3,720.453	0.000	6.817	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	3,727.270
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	3,720.453	0.000	6.817	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	3,727.270
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**3,720.453**	**0.000**	**6.817**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**-**	**3,727.270**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The four-engine C-5 carries outsized and heavy cargo (tanks, helicopters, etc.) between main operating bases. Additionally, the aircraft is capable of carrying 73 troops and 36 standard 463-L pallets.

The C-5 fleet was delivered to the Air Force from 1969 to 1989. The aircraft's initial service life was 30,000 flight hours. The Air Force started converting 52 C-5A, B and C aircraft to the C-5M in October 2004 under the C-5 Reliability and Re-engining Program (RERP). The final C-5M will be delivered April 2018. This modernization effort extends the service life of the C-5 out to 2040 with an expected service life of 51,025 flight hours.

As of Dec 2017, the C-5 inventory consists of 52 C-5B/C/M aircraft. Four C-5B and one C-5C aircraft are currently undergoing modernization to the C-5M. All C-5A have been retired. Total fleet size starting April 2018 will be 52 C-5M aircraft.

Funding for this exhibit is contained in PE 0401119F. No Budget Year FY19 funding requested.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 3: Airlift Aircraft	**P-1 Line Item Number / Title:** C01700 / C-17A

ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0401130F	**Other Related Program Elements:** 0401130F

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	218.160	17.455	152.372	102.121	0.000	102.121	129.637	99.740	96.030	97.775	95.809	1,009.099
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	218.160	17.455	152.372	102.121	0.000	102.121	129.637	99.740	96.030	97.775	95.809	1,009.099
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**218.160**	**17.455**	**152.372**	**102.121**	**0.000**	**102.121**	**129.637**	**99.740**	**96.030**	**97.775**	**95.809**	**1,009.099**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This line item funds modifications to the C-17 aircraft. The United States Air Force (USAF) C-17 inventory is 222 aircraft. The four engine C-17 is the only aircraft capable of routine delivery of outsize cargo (tanks, helicopters, etc.) to short, austere airfields. The aircraft can carry up to 102 troops, 36 litter patients, or 18 standard 463-L pallets.

Major C-17 modifications in FY19 include Pylon Stub Flammable Fluid Leakage Zone (FFLZ) Fixed Fairing (FF) Translating Fairing, Identification Friend or Foe Global Air Traffic Management (IFF GATM) and Automatic Dependent Surveillance - Broadcast Out (ADS-B Out). The ADS-B Out installations are scheduled to meet the 1 Jan 2020 FAA mandate.

Funding may be used to address Diminishing Manufacturing Sources (DMS) issues.

In accordance with Section 1815 of the FY08 National Defense Authorization Act (P.L.110-181), these items are necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses and providing military support to civil authorities.

FY 2019 funding transfer in from O&M $.896M for Rapid Global Mobility Live Virtual Construct program.

Funding for this exhibit is contained in PE 0401130F.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	17.455	122.157	95.972	0.000	95.972	125.678	98.122	96.030	82.641
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	19.044	4.985	-	4.985	2.263	1.618	0.000	15.134
AFR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	11.171	1.164	-	1.164	1.696	-	-	0.000

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 3: Airlift Aircraft	**P-1 Line Item Number / Title:** C01700 / C-17A	
ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0401130F	**Other Related Program Elements:** 0401130F
Line Item MDAP/MAIS Code: N/A		

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	17.455	152.372	102.121	0.000	102.121	129.637	99.740	96.030	97.775

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 3: Airlift Aircraft

P-1 Line Item Number / Title:
C01700 / C-17A

ID Code (A=Service Ready, B=Not Service Ready): B | **Program Elements for Code B Items:** 0401130F | **Other Related Program Elements:** 0401130F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	_2000 / Pylon Stub FFLZ, FF, Translating Fairing (Safety)				- / 82.201	- / 7.496	- / 3.297	- / 1.515	- / -	- / 1.515
P-40a***	_2590 / ELT Frequency Change (Capability Improvement)				- / 3.062	- / -	- / 2.350	- / -	- / -	- / -
P-40a***	1508 / IFF GATM (Capability Improvement)				- / 86.594	- / 9.859	- / 50.723	- / 4.743	- / -	- / 4.743
P-40a***	6403 / Filter Fire Mitigation (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / -
P-40a***	9741 / Beyond Line of Sight (BLOS) Comm Mod (Capability Improvement)				- / -	- / -	- / -	- / 0.598	- / -	- / 0.598
P-40a***	9742 / C-17 Simulator Lateral Motion Maneuver Enhancement (Other)				- / -	- / -	- / -	- / 2.472	- / -	- / 2.472
P-40a***	9743 / Beyond Line of Sight (BLOS) Aero I/H (Capability Improvement)				- / -	- / -	- / -	- / 0.000	- / -	- / 0.000
P-40a***	9745 / C-17 Real Time In the Cockpit (RTIC) (Capability Improvement)				- / -	- / -	- / 26.850	- / 0.000	- / -	- / 0.000
P-40a***	9746 / C-17 Weapon System Trainer (WST) (Other)				- / -	- / -	- / -	- / -	- / -	- / -
P-40a***	9747 / C-17 Training System (Other Mods) (Other)				- / -	- / -	- / -	- / 12.435	- / -	- / 12.435
P-40a***	99999X / Low Cost Modifications (Capability Improvement)				- / 3.117	- / 0.100	- / 0.302	- / 0.100	- / -	- / 0.100
P-3a	3080 / Replacement Heads Up Display (RHUD) (Capability Improvement)		B		- / 0.000	- / 0.000	- / 6.274	- / 25.411	- / 0.000	- / 25.411
P-3a	2901 / Automatic Dependent Surveillance - Broadcast Out (ADS-B Out) (Capability Improvement)		B		- / 43.186	- / 0.000	- / 22.920	- / 15.748	- / 0.000	- / 15.748
P-3a	9740 / Fixed Installation Satellite Antenna (FISA) (Capability Improvement)		B		- / -	- / 0.000	- / 39.656	- / 12.431	- / 0.000	- / 12.431
P-3a	9744 / C-17 Visual System Field of View (Other)		B		- / -	- / 0.000	- / 0.000	- / 26.668	- / 0.000	- / 26.668
P-40	**Total Gross/Weapon System Cost**				**- / 218.160**	**- / 17.455**	**- / 152.372**	**- / 102.121**	**- / 0.000**	**- / 102.121**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	_2000 / Pylon Stub FFLZ, FF, Translating Fairing (Safety)				- / 1.187	- / 1.618	- / -	- / -	- / -	- / 97.314
P-40a***	_2590 / ELT Frequency Change (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / 5.412
P-40a***	1508 / IFF GATM (Capability Improvement)				- / 1.397	- / -	- / -	- / -	- / -	- / 153.316
P-40a***	6403 / Filter Fire Mitigation (Capability Improvement)				- / 0.389	- / 1.299	- / 2.190	- / 2.693	- / 9.409	- / 15.980
P-40a***	9741 / Beyond Line of Sight (BLOS) Comm Mod (Capability Improvement)				- / 14.821	- / 19.670	- / 27.398	- / 28.311	- / 16.772	- / 107.570
P-40a***	9742 / C-17 Simulator Lateral Motion Maneuver Enhancement (Other)				- / 4.166	- / 3.321	- / -	- / -	- / -	- / 9.959
P-40a***	9743 / Beyond Line of Sight (BLOS) Aero I/H (Capability Improvement)				- / 9.918	- / 23.374	- / 26.941	- / 34.933	- / 16.936	- / 112.102
P-40a***	9745 / C-17 Real Time In the Cockpit (RTIC) (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / 26.850
P-40a***	9746 / C-17 Weapon System Trainer (WST) (Other)				- / 45.422	- / -	- / -	- / -	- / -	- / 45.422
P-40a***	9747 / C-17 Training System (Other Mods) (Other)				- / 3.600	- / 0.500	- / -	- / -	- / -	- / 16.535
P-40a***	99999X / Low Cost Modifications (Capability Improvement)				- / 0.100	- / 0.100	- / 0.100	- / 0.100	- / -	- / 4.019

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 3: Airlift Aircraft	**P-1 Line Item Number / Title:** C01700 / C-17A

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0401130F	Other Related Program Elements: 0401130F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-3a	3080 / Replacement Heads Up Display (RHUD) (Capability Improvement)		B		- / 46.687	- / 49.858	- / 39.401	- / 31.738	- / 52.692	- / 252.061
P-3a	2901 / Automatic Dependent Surveillance - Broadcast Out (ADS-B Out) (Capability Improvement)		B		- / 1.950	- / 0.000	- / 0.000	- / -	- / -	- / 83.804
P-3a	9740 / Fixed Installation Satellite Antenna (FISA) (Capability Improvement)		B		- / 0.000	- / 0.000	- / -	- / -	- / -	- / 52.087
P-3a	9744 / C-17 Visual System Field of View (Other)		B		- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / 26.668
P-40	**Total Gross/Weapon System Cost**				**- / 129.637**	**- / 99.740**	**- / 96.030**	**- / 97.775**	**- / 95.809**	**- / 1,009.099**

*** Although this is an Exhibit P-40a item, the actual exhibit is not included since all of the required information for this item is already being shown here.

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 3	**P-1 Line Item Number / Title:** C01700 / C-17A	**Modification Number / Title:** 3080 / Replacement Heads Up Display (RHUD)
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	0.000	6.274	25.411	0.000	25.411	46.687	49.858	39.401	31.738	52.692	252.061
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	0.000	6.274	25.411	0.000	25.411	46.687	49.858	39.401	31.738	52.692	252.061
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**0.000**	**6.274**	**25.411**	**0.000**	**25.411**	**46.687**	**49.858**	**39.401**	**31.738**	**52.692**	**252.061**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This modification effort is an ACAT III program for modernization of the C-17 on the Air Force Acquisition Master List (AML). This effort is for development, integration and installation of a Replacement Heads-Up Display (RHUD) onto the C-17 aircraft. Analysis indicates the current HUD, which is required to fly the C-17, is becoming unsupportable due to obsolescence. This effort will retrofit the C-17 fleet with an RHUD that is supportable and provides improved reliability, maintainability, and supportability, while providing growth to support future planned capability improvements. The RHUD is scheduled to complete all installs by CY26.

Projected allocations by component are subject to total force mission priorities and aircraft availability.

Funding may be used to address Diminishing Manufacturing Sources (DMS) issues.

Milestone/Development Status

The first RHUD will be tested with RDT&E funding in FY18. The first production kitproof kits will be purchased in FY18 for FY19 installation.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	6.274	25.411	-	25.411	46.687	49.858	39.401	29.630
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	-	-	-	-	-	-	2.108
AFR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	-	-	-	-	-	-	0.000
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**0.000**	**6.274**	**25.411**	**0.000**	**25.411**	**46.687**	**49.858**	**39.401**	**31.738**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 3	**P-1 Line Item Number / Title:** C01700 / C-17A	**Modification Number / Title:** 3080 / Replacement Heads Up Display (RHUD)
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: C-17	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0401130F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0401130F	- / 107.482	- / 5.492	- / 4.370	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 117.344
Procurement												
Modification Item 1 of 1: RHUD												
A Kits												
Recurring												
RHUD:INSTALL KITS Group A (Active)	- / -	- / -	3 / 5.980	19 / 12.340	- / -	19 / 12.340	38 / 24.310	38 / 25.090	38 / 24.780	34 / 22.270	- / -	170 / 114.770
RHUD:INSTALL KITS Group A (Guard)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 2.108	30 / 21.782	34 / 23.890
RHUD:INSTALL KITS Group A (Reserve)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	18 / 12.648	18 / 12.648
Subtotal: Recurring	*- / -*	*- / -*	*- / 5.980*	*- / 12.340*	*- / -*	*- / 12.340*	*- / 24.310*	*- / 25.090*	*- / 24.780*	*- / 24.378*	*- / 34.430*	*- / 151.308*
Subtotal: RHUD	*- / -*	*- / -*	*- / 5.980*	*- / 12.340*	*- / -*	*- / 12.340*	*- / 24.310*	*- / 25.090*	*- / 24.780*	*- / 24.378*	*- / 34.430*	*- / 151.308*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / 5.980*	*- / 12.340*	*- / -*	*- / 12.340*	*- / 24.310*	*- / 25.090*	*- / 24.780*	*- / 24.378*	*- / 34.430*	*- / 151.308*
Support *(All Modification Items)*												
Change Orders	- / -	- / -	- / 0.294	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.294
OTHER GOVT	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.045	- / 0.045	- / 0.045	- / -	- / -	- / 0.135
SUPPORT-EQUIP	- / -	- / -	- / -	- / 4.182	- / -	- / 4.182	- / -	- / -	- / -	- / -	- / -	- / 4.182
SIM/TRAINER	- / -	- / -	- / -	0 / 8.400	- / -	0 / 8.400	0 / 9.450	0 / 8.400	- / -	- / -	- / -	0 / 26.250
PMA - Other Gov't Costs	- / -	- / -	- / -	- / -	- / -	- / -	0 / 9.692	0 / 9.723	0 / 7.606	- / -	- / -	0 / 27.021
Subtotal: Support	*- / -*	*- / -*	*- / 0.294*	*0 / 12.582*	*- / -*	*0 / 12.582*	*0 / 19.187*	*0 / 18.168*	*0 / 7.651*	*- / -*	*- / -*	*0 / 57.882*
Installation												
Modification Item 1 of 1: RHUD	- / -	- / -	- / -	3 / 0.489	- / -	3 / 0.489	19 / 3.190	38 / 6.600	38 / 6.970	38 / 7.360	86 / 18.262	222 / 42.871
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*3 / 0.489*	*- / -*	*3 / 0.489*	*19 / 3.190*	*38 / 6.600*	*38 / 6.970*	*38 / 7.360*	*86 / 18.262*	*222 / 42.871*
Total												
Total Cost (Procurement + Support + Installation)	**0.000**	**0.000**	**6.274**	**25.411**	**0.000**	**25.411**	**46.687**	**49.858**	**39.401**	**31.738**	**52.692**	**252.061**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 3	**P-1 Line Item Number / Title:** C01700 / C-17A	**Modification Number / Title:** 3080 / Replacement Heads Up Display (RHUD)

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 1: RHUD

Manufacturer Information

Manufacturer Name: The Boeing Company

Manufacturer Location: Long Beach, Ca

Administrative Leadtime *(in Months)*: 0

Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Feb 2018	Oct 2018	Oct 2019	Oct 2020	Oct 2021	Oct 2022
Delivery Dates		Feb 2019	Oct 2019	Oct 2020	Oct 2021	Oct 2022	Oct 2023

Installation Information

Method of Implementation: Contractor Facility

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	3 / 0.489	- / -	3 / 0.489	- / -	- / -	- / -	- / -	- / -	3 / 0.489
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	10 / 1.679	- / -	- / -	- / -	- / -	10 / 1.679
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	19 / 3.300	- / -	- / -	- / -	19 / 3.300
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	19 / 3.485	- / -	- / -	19 / 3.485
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	19 / 3.680	- / -	19 / 3.680
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	19 / 3.886	19 / 3.886
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 5.245	24 / 5.245
Total	- / -	- / -	- / -	3 / 0.489	- / -	3 / 0.489	10 / 1.679	19 / 3.300	19 / 3.485	19 / 3.680	43 / 9.131	113 / 21.764

Installation Schedule

		FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023					
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	0	-	-	-	-	-	-	-	-	-	-	2	1	3	3	2	2	5	5	5	4	5	5	5	4	5	5	5	4	43	113
Out	0	-	-	-	-	-	-	-	-	-	-	-	2	1	3	3	2	2	5	5	5	4	5	5	5	4	5	5	5	47	113

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 3	**P-1 Line Item Number / Title:** C01700 / C-17A	**Modification Number / Title:** 3080 / Replacement Heads Up Display (RHUD)

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 1: RHUD

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	9 / 1.511	- / -	- / -	- / -	- / -	9 / 1.511
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	19 / 3.300	- / -	- / -	- / -	19 / 3.300
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	19 / 3.485	- / -	- / -	19 / 3.485
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	19 / 3.680	- / -	19 / 3.680
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	19 / 3.886	19 / 3.886
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 5.245	24 / 5.245
Total	- / -	- / -	- / -	- / -	- / -	- / -	9 / 1.511	19 / 3.300	19 / 3.485	19 / 3.680	43 / 9.131	109 / 21.107

Installation Schedule

		FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023					
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	0	-	-	-	-	-	-	-	-	-	-	-	-	3	2	2	2	5	5	5	4	5	5	5	4	5	5	5	4	43	109
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	3	2	2	2	5	5	5	4	5	5	5	4	5	5	5	47	109

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 3	**P-1 Line Item Number / Title:** C01700 / C-17A	**Modification Number / Title:** 2901 / Automatic Dependent Surveillance - Broadcast Out (ADS-B Out)

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	43.186	0.000	22.920	15.748	0.000	15.748	1.950	0.000	0.000	-	-	83.804
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	43.186	0.000	22.920	15.748	0.000	15.748	1.950	0.000	0.000	-	-	83.804
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**43.186**	**0.000**	**22.920**	**15.748**	**0.000**	**15.748**	**1.950**	**0.000**	**0.000**	**-**	**-**	**83.804**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	1.150	0.480	0.280	-	0.280	-	-	-	-	-	1.910
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Phase I portion of this modification effort is part of the Common Configuration acquisition program. The C-17 Common Configuration program consists of multiple development, integration and retrofit projects to support achievement of the Block 19-21 common configuration and the homogeneous fleet configuration.

Phase I - Surveillance Enhancements (FY15-FY18) will integrate an improved surveillance capability to meet new requirements for global civil airspace access and for safe operations in military-controlled airspace. This project will provide Automatic Dependent Surveillance - Broadcast (ADS-B) Out capability to meet mandated civil airspace requirements. Phase I installs will be performed concurrently with the Identification Friend or Foe (IFF) Global Air Traffic Management (GATM) installation. The ADS-B Out installations are scheduled to meet the 1 Jan 2020 FAA mandate.

ADS-B Kit consists of:
ARINC 429 Cable
APX-119-531 Software Update
Precision Landing System Receiver (PLSR) -12 configuration

Funding may be used for Diminishing Manufacturing Sources (DMS) issues. Projected allocations by component are subject to total force mission priorities and aircraft availability.

Milestone/Development Status

Development complete. Installs begin in FY18. ADS-B installations began during in 1QFY18 and will conclude in 2QFY20.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.000	16.187	11.532	-	11.532	-	-	-	-
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	4.402	3.418	-	3.418	0.500	-	-	-
AFR	Quantity	-	-	-	-	-	-	-	-	-

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 3	**P-1 Line Item Number / Title:** C01700 / C-17A	**Modification Number / Title:** 2901 / Automatic Dependent Surveillance - Broadcast Out (ADS-B Out)
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
	Total Obligation Authority	-	2.331	0.798	-	0.798	1.450	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**0.000**	**22.920**	**15.748**	**0.000**	**15.748**	**1.950**	**0.000**	**0.000**	**-**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 3	**P-1 Line Item Number / Title:** C01700 / C-17A	**Modification Number / Title:** 2901 / Automatic Dependent Surveillance - Broadcast Out (ADS-B Out)
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: C-17	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0401130F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0401130F	- / 79.210	- / 1.840	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 81.050
Procurement												
Modification Item 1 of 1: ADS-B Out												
A Kits												
Recurring												
ADS-B Out:INSTALL KITS Group A (Active)	114 / 28.418	- / -	56 / 7.252	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	170 / 35.670
ADS-B Out:INSTALL KITS Group A (Guard)	- / -	- / -	34 / 4.402	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	34 / 4.402
ADS-B Out:INSTALL KITS Group A (Reserve)	- / -	- / -	18 / 2.331	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	18 / 2.331
Subtotal: Recurring	*- / 28.418*	*- / -*	*- / 13.985*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 42.403*
Subtotal: ADS-B Out	*- / 28.418*	*- / -*	*- / 13.985*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 42.403*
Subtotal: Procurement, All Modification Items	*- / 28.418*	*- / -*	*- / 13.985*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 42.403*
Support *(All Modification Items)*												
Mod of Spares	- / 8.500	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 8.500
SIM/TRAINER	0 / 2.814	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 2.814
GFP	- / -	- / -	- / 0.407	- / 0.000	- / -	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 0.407
PMA - Other Gov't Costs	- / 1.318	- / -	- / 3.431	- / 5.154	- / -	- / 5.154	- / -	- / -	- / -	- / -	- / -	- / 9.903
Subtotal: Support	*0 / 12.632*	*- / 0.000*	*- / 3.838*	*- / 5.154*	*- / -*	*- / 5.154*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*0 / 21.624*
Installation												
Modification Item 1 of 1: ADS-B Out	2 / 2.136	- / -	112 / 5.097	93 / 10.594	- / -	93 / 10.594	15 / 1.950	- / -	- / -	- / -	- / -	222 / 19.777
Subtotal: Installation	*2 / 2.136*	*- / -*	*112 / 5.097*	*93 / 10.594*	*- / -*	*93 / 10.594*	*15 / 1.950*	*- / -*	*- / -*	*- / -*	*- / -*	*222 / 19.777*
Total												
Total Cost (Procurement + Support + Installation)	**43.186**	**0.000**	**22.920**	**15.748**	**0.000**	**15.748**	**1.950**	**0.000**	**0.000**	**-**	**-**	**83.804**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 3	**P-1 Line Item Number / Title:** C01700 / C-17A	**Modification Number / Title:** 2901 / Automatic Dependent Surveillance - Broadcast Out (ADS-B Out)

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 1: ADS-B Out

Manufacturer Information

Manufacturer Name: The Boeing Company

Manufacturer Location: Long Beach, CA

Administrative Leadtime *(in Months)*: 0

Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Oct 2017					
Delivery Dates		Oct 2018					

Installation Information

Method of Implementation: Contractor Facility

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	1 / 1.068	- / -	56 / 2.548	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	57 / 3.616
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	52 / 5.924	- / -	52 / 5.924	2 / 0.250	- / -	- / -	- / -	- / -	54 / 6.174
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	1 / 1.068	- / -	56 / 2.548	52 / 5.924	- / -	52 / 5.924	2 / 0.250	- / -	- / -	- / -	- / -	111 / 9.790

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	1	-	-	-	-	-	20	20	16	13	13	13	13	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	111
Out	0	1	-	-	-	-	-	20	20	16	13	13	13	13	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	111

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 3	**P-1 Line Item Number / Title:** C01700 / C-17A	**Modification Number / Title:** 2901 / Automatic Dependent Surveillance - Broadcast Out (ADS-B Out)

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 1: ADS-B Out

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	1 / 1.068	- / -	56 / 2.549	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	57 / 3.617
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	41 / 4.670	- / -	41 / 4.670	13 / 1.700	- / -	- / -	- / -	- / -	54 / 6.370
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	1 / 1.068	- / -	56 / 2.549	41 / 4.670	- / -	41 / 4.670	13 / 1.700	- / -	- / -	- / -	- / -	111 / 9.987

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	1	-	-	-	-	-	20	20	16	14	10	9	8	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	111
Out	0	1	-	-	-	-	-	20	20	16	14	10	9	8	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	111

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 3	**P-1 Line Item Number / Title:** C01700 / C-17A	**Modification Number / Title:** 9740 / Fixed Installation Satellite Antenna (FISA)
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	0.000	39.656	12.431	0.000	12.431	0.000	0.000	-	-	-	52.087
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	39.656	12.431	0.000	12.431	0.000	0.000	-	-	-	52.087
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**39.656**	**12.431**	**0.000**	**12.431**	**0.000**	**0.000**	**-**	**-**	**-**	**52.087**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

A C-17 Fixed Installation Satellite Antenna (FISA) enables high bandwidth (military or commercial) satellite communications, allowing for greater, in flight situational awareness. Capabilities include en route-beyond line of sight communications, Video teleconferencing, mission rehearsal, and upload/download of large graphic files.

Funding may be used to procure additional FISA systems and/or procurement of next-gen FISA systems.

Funding may be used for Diminishing Manufacturing Sources (DMS) issues. Projected allocations by component subject to total force mission priorities and aircraft availability.

Milestone/Development Status

Development Complete

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	39.656	12.431	-	12.431	0.000	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**0.000**	**39.656**	**12.431**	**0.000**	**12.431**	**0.000**	**0.000**	**-**	**-**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 3	**P-1 Line Item Number / Title:** C01700 / C-17A	**Modification Number / Title:** 9740 / Fixed Installation Satellite Antenna (FISA)
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: C-17	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0401130F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: FISA												
A Kits												
Recurring												
FISA:INSTALL KITS Group A (Active)	- / -	- / -	54 / 36.990	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	54 / 36.990
Subtotal: Recurring	*- / -*	*- / -*	*- / 36.990*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 36.990*
Subtotal: FISA	*- / -*	*- / -*	*- / 36.990*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 36.990*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / 36.990*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 36.990*
Support *(All Modification Items)*												
PMA - Other Gov't Costs	- / -	- / -	- / 2.666	- / 1.836	- / -	- / 1.836	- / -	- / -	- / -	- / -	- / -	- / 4.502
Subtotal: Support	*- / -*	*- / -*	*- / 2.666*	*- / 1.836*	*- / -*	*- / 1.836*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 4.502*
Installation												
Modification Item 1 of 1: FISA	- / -	- / -	0 / 0.000	40 / 10.595	- / -	40 / 10.595	14 / 0.000	- / -	- / -	- / -	- / -	54 / 10.595
Subtotal: Installation	*- / -*	*- / -*	*- / 0.000*	*40 / 10.595*	*- / -*	*40 / 10.595*	*14 / -*	*- / -*	*- / -*	*- / -*	*- / -*	*54 / 10.595*
Total												
Total Cost (Procurement + Support + Installation)	**-**	**0.000**	**39.656**	**12.431**	**0.000**	**12.431**	**0.000**	**0.000**	**-**	**-**	**-**	**52.087**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 3	**P-1 Line Item Number / Title:** C01700 / C-17A	**Modification Number / Title:** 9740 / Fixed Installation Satellite Antenna (FISA)

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 1: FISA

Manufacturer Information

Manufacturer Name: The Boeing Company

Manufacturer Location: Huntington Beach

Administrative Leadtime *(in Months)*: 8

Production Leadtime *(in Months)*: 7

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Jun 2018					
Delivery Dates		Jan 2019					

Installation Information

Method of Implementation: Contractor Facility

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	0 / 0.000	40 / 10.595	- / -	40 / 10.595	14 / 0.000	- / -	- / -	- / -	- / -	54 / 10.595
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	0 / 0.000	40 / 10.595	- / -	40 / 10.595	14 / 0.000	- / -	- / -	- / -	- / -	54 / 10.595

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	13	13	14	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	54
Out	0	-	-	-	-	-	-	-	-	-	-	13	13	14	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	54

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 3	**P-1 Line Item Number / Title:** C01700 / C-17A	**Modification Number / Title:** 9744 / C-17 Visual System Field of View
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	0.000	0.000	26.668	0.000	26.668	0.000	0.000	0.000	-	-	26.668
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	0.000	26.668	0.000	26.668	0.000	0.000	0.000	-	-	26.668
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**0.000**	**26.668**	**0.000**	**26.668**	**0.000**	**0.000**	**0.000**	**-**	**-**	**26.668**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Increase Field Of View (FOV) to replicate visual references used during air refueling. Increased FOV enhances Distributed Mission Operations (DMO) Air refueling training. Mobility Air Forces (MAF) training supports the modification and enhancement of high fidelity MAF aircrew training and support systems to ensure full employment of DMO capabilities to meet combat readiness training needs. Use of DMO-Capable trainers, instead of the aircraft, provides a cost effective means of conducting daily training, mission rehearsal, joint forces exercises, tactics development activity, and Virtual Aerial Refueling (VAR).

DMS efforts to include removal of end-of-life software/hardware within simulators systems and move to a modular, common open system architecture that is sustainable and cyber-resilient. Implement requirements and standards defined under the Simulator Common Architecture Requirements and Standards (SCARS) initiative.

Milestone/Development Status

Development complete.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	26.668	-	26.668	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**0.000**	**0.000**	**26.668**	**0.000**	**26.668**	**0.000**	**0.000**	**0.000**	**-**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 3	**P-1 Line Item Number / Title:** C01700 / C-17A	**Modification Number / Title:** 9744 / C-17 Visual System Field of View
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: C-17	**Modification Type:** Other	**Related RDT&E PEs:** 0401130F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: C-17 Visual System Field of View												
A Kits												
Recurring												
C-17 Visual System Field of View:INSTALL KITS Group A (Active)	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	0 / 0.000
Subtotal: Recurring	- / -	- / -	- / -	- / 0.000	- / -	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 0.000
Subtotal: C-17 Visual System Field of View	- / -	- / -	- / -	- / 0.000	- / -	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 0.000
Subtotal: Procurement, All Modification Items	- / -	- / -	- / -	- / 0.000	- / -	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 0.000
Support *(All Modification Items)*												
SIM/TRAINER	- / -	- / -	- / -	1 / 25.908	- / -	1 / 25.908	- / -	- / -	- / -	- / -	- / -	1 / 25.908
PMA - Other Gov't Costs	- / -	- / -	- / -	- / 0.760	- / -	- / 0.760	- / -	- / -	- / -	- / -	- / -	- / 0.760
Subtotal: Support	- / -	- / -	- / -	*1 / 26.668*	- / -	*1 / 26.668*	- / -	- / -	- / -	- / -	- / -	*1 / 26.668*
Installation												
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total												
Total Cost (Procurement + Support + Installation)	**-**	**0.000**	**0.000**	**26.668**	**0.000**	**26.668**	**0.000**	**0.000**	**0.000**	**-**	**-**	**26.668**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 3	**P-1 Line Item Number / Title:** C01700 / C-17A	**Modification Number / Title:** 9744 / C-17 Visual System Field of View
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 1: C-17 Visual System Field of View

Manufacturer Information

Manufacturer Name: Unknown	Manufacturer Location: Unknown
Administrative Leadtime *(in Months)*: 0	Production Leadtime *(in Months)*: 0

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation (Organic): Org/Intermediate	**Installation Quantity:** 0

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 3: Airlift Aircraft	**P-1 Line Item Number / Title:** C02100 / C-21

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0401314F	Other Related Program Elements: 0401314F

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	10.517	0.439	13.253	17.516	0.000	17.516	0.216	0.220	0.224	0.228	-	42.613
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	10.517	0.439	13.253	17.516	0.000	17.516	0.216	0.220	0.224	0.228	-	42.613
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**10.517**	**0.439**	**13.253**	**17.516**	**0.000**	**17.516**	**0.216**	**0.220**	**0.224**	**0.228**	**-**	**42.613**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This line item funds low-cost modifications and service bulletins for nineteen (19) nineteen C-21A aircraft, commercial equivalent to the Learjet 35. The C-21A aircraft is a twin-turbofan engine aircraft used for cargo and passenger airlift over medium ranges. Service bulletins and low cost modifications are necessary for continuing Federal Aviation Administration certification while improving flight safety, reliability, and maintainability. Support funding for emerging modification requirements to support PMA, A&AS, equipment and other as required.

Nineteen (19) C-21A aircraft will receive an avionics upgrade, which replaces obsolete/antiquated systems with modern digital equipment and installs Automatic Dependent Surveillance-Broadcast/Transponder Mode 5 capabilities to meet FAA global mandates.

Funding may be used to address Diminishing Manufacturing Sources (DMS) issues.

Funding for this exhibit contained in PE 0401314F.

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 3: Airlift Aircraft	**P-1 Line Item Number / Title:** C02100 / C-21

ID Code (A=Service Ready, B=Not Service Ready): B | **Program Elements for Code B Items:** 0401314F | **Other Related Program Elements:** 0401314F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	99999S / SERVICE BULLETINS (Capability Improvement)				- / 0.254	- / 0.143	- / 0.133	- / 0.104	- / -	- / 0.104
P-40a***	99999X / Low Cost Modifications (Capability Improvement)				- / 0.113	- / 0.110	- / 0.110	- / 0.110	- / -	- / 0.110
P-3a	1100 / Avionics Upgrades and FAA Mandates (Capability Improvement)		B		- / 10.150	- / 0.186	- / 13.010	- / 17.302	- / 0.000	- / 17.302
P-40	**Total Gross/Weapon System Cost**				**- / 10.517**	**- / 0.439**	**- / 13.253**	**- / 17.516**	**- / 0.000**	**- / 17.516**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	99999S / SERVICE BULLETINS (Capability Improvement)				- / 0.106	- / 0.109	- / 0.098	- / 0.098	- / -	- / 1.045
P-40a***	99999X / Low Cost Modifications (Capability Improvement)				- / 0.110	- / 0.111	- / 0.126	- / 0.130	- / -	- / 0.920
P-3a	1100 / Avionics Upgrades and FAA Mandates (Capability Improvement)		B		- / 0.000	- / -	- / -	- / -	- / -	- / 40.648
P-40	**Total Gross/Weapon System Cost**				**- / 0.216**	**- / 0.220**	**- / 0.224**	**- / 0.228**	**- / -**	**- / 42.613**

*** Although this is an Exhibit P-40a item, the actual exhibit is not included since all of the required information for this item is already being shown here.

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 3	**P-1 Line Item Number / Title:** C02100 / C-21	**Modification Number / Title:** 1100 / Avionics Upgrades and FAA Mandates
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	10.150	0.186	13.010	17.302	0.000	17.302	0.000	-	-	-	-	40.648
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	10.150	0.186	13.010	17.302	0.000	17.302	0.000	-	-	-	-	40.648
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**10.150**	**0.186**	**13.010**	**17.302**	**0.000**	**17.302**	**0.000**	**-**	**-**	**-**	**-**	**40.648**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	1.638	-	1.638	-	-	-	-	-	1.638
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

C-21 is an FAA-certified aircraft. This modification replaces the obsolete analog weather radar with modern digital radar; replaces unsupportable flight management system; replaces antiquated and unsupportable Global Positioning Systems (GPS); replaces cockpit voice recorder (CVR) and flight data recorder (FDR) to meet FAA minimum requirements; installs Automatic Dependent Surveillance-Broadcast (ADS-B) capability and Transponder Mode 5 capability to meet FAA compliance requirements.

Milestone C Approved May 2017

Milestone/Development Status

Commercial-off-the-shelf items with non-recurring engineering for integration

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 3	**P-1 Line Item Number / Title:** C02100 / C-21	**Modification Number / Title:** 1100 / Avionics Upgrades and FAA Mandates
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: C-21A	**Modification Type:** Capability Improvement	**Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Avionics Upgrade												
A Kits												
Recurring												
Avionics Upgrade:INSTALL KITS Group A (Active)	1 / 0.290	- / -	8 / 2.187	10 / 1.210	- / -	10 / 1.210	- / -	- / -	- / -	- / -	- / -	19 / 3.687
Subtotal: Recurring	*- / 0.290*	*- / -*	*- / 2.187*	*- / 1.210*	*- / -*	*- / 1.210*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 3.687*
B Kits												
Recurring												
Avionics Upgrade:EQUIPMENT Group B (Active)	1 / 0.300	- / -	8 / 8.742	10 / 12.200	- / -	10 / 12.200	- / -	- / -	- / -	- / -	- / -	19 / 21.242
Subtotal: Recurring	*- / 0.300*	*- / -*	*- / 8.742*	*- / 12.200*	*- / -*	*- / 12.200*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 21.242*
Subtotal: Avionics Upgrade	*- / 0.590*	*- / -*	*- / 10.929*	*- / 13.410*	*- / -*	*- / 13.410*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 24.929*
Subtotal: Procurement, All Modification Items	*- / 0.590*	*- / -*	*- / 10.929*	*- / 13.410*	*- / -*	*- / 13.410*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 24.929*
Support *(All Modification Items)*												
GROUP A: TOTAL NONRECURRING	- / 7.300	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 7.300
Data	- / 0.455	- / -	- / -	- / 0.122	- / -	- / 0.122	- / -	- / -	- / -	- / -	- / -	- / 0.577
PMA - Other Gov't Costs	- / 1.515	- / 0.186	- / 0.302	- / 3.014	- / -	- / 3.014	- / -	- / -	- / -	- / -	- / -	- / 5.017
Subtotal: Support	*- / 9.270*	*- / 0.186*	*- / 0.302*	*- / 3.136*	*- / -*	*- / 3.136*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 12.894*
Installation												
Modification Item 1 of 1: Avionics Upgrade	1 / 0.290	0 / 0.000	8 / 1.779	10 / 0.756	0 / 0.000	10 / 0.756	- / -	- / -	- / -	- / -	- / -	19 / 2.825
Subtotal: Installation	*1 / 0.290*	*0 / -*	*8 / 1.779*	*10 / 0.756*	*0 / -*	*10 / 0.756*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*19 / 2.825*
Total												
Total Cost (Procurement + Support + Installation)	**10.150**	**0.186**	**13.010**	**17.302**	**0.000**	**17.302**	**0.000**	**-**	**-**	**-**	**-**	**40.648**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 3	**P-1 Line Item Number / Title:** C02100 / C-21	**Modification Number / Title:** 1100 / Avionics Upgrades and FAA Mandates

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 1: Avionics Upgrade

Manufacturer Information

Manufacturer Name: Global Aviation Technologies

Manufacturer Location: Wichita, KS

Administrative Leadtime *(in Months)*: 3

Production Leadtime *(in Months)*: 3

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		May 2018	Jan 2019				
Delivery Dates		Aug 2018	Apr 2019				

Installation Information

Method of Implementation: Contractor Facility

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	1 / 0.290	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.290
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	8 / 1.779	- / -	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	8 / 1.779
FY 2019	- / -	- / -	- / -	10 / 0.756	- / -	10 / 0.756	- / -	- / -	- / -	- / -	- / -	10 / 0.756
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	1 / 0.290	0 / 0.000	8 / 1.779	10 / 0.756	0 / 0.000	10 / 0.756	- / -	- / -	- / -	- / -	- / -	19 / 2.825

Installation Schedule

		FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023					
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	0	-	-	1	-	0	-	3	5	3	2	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	19
Out	0	-	-	1	-	0	-	3	5	3	2	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	19

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 3: Airlift Aircraft	**P-1 Line Item Number / Title:** C03200 / C-32A

ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0401314F	**Other Related Program Elements:** 0401314F

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	108.156	30.235	79.449	4.537	0.000	4.537	11.539	1.951	1.990	2.026	-	239.883
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	108.156	30.235	79.449	4.537	0.000	4.537	11.539	1.951	1.990	2.026	-	239.883
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**108.156**	**30.235**	**79.449**	**4.537**	**0.000**	**4.537**	**11.539**	**1.951**	**1.990**	**2.026**	**-**	**239.883**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This line item funds all aircraft modifications for four (4) C-32A aircraft, a commercial derivative of the Boeing 757-200. The C-32A is a twin-engine, turbofan aircraft used to transport high ranking government officals worldwide. The design service life is 30 years with an average of 10 years remaining. Support funding for emerging modification requirements to support PMA, A&AS, equipment and other as required.

In FY18 Nitrogen Generation System was a new start.

Service bulletins and low cost modifications are necessary for continuing Federal Aviation Administration certification while improving flight safety, reliability, and maintainability.

Funding may be used to address Diminishing Manufacturing Sources (DMS) issues.

Funding for this exhibit is contained in PE 0401314F.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 3: Airlift Aircraft	**P-1 Line Item Number / Title:** C03700 / C-37A

ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0401314F	**Other Related Program Elements:** 0401314F

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	1.318	5.004	15.423	0.419	0.000	0.419	181.497	0.459	0.469	0.477	-	205.066
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1.318	5.004	15.423	0.419	0.000	0.419	181.497	0.459	0.469	0.477	-	205.066
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1.318**	**5.004**	**15.423**	**0.419**	**0.000**	**0.419**	**181.497**	**0.459**	**0.469**	**0.477**	**-**	**205.066**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This line item funds modifications to twelve (12) C-37A and C-37B aircraft, commercial equivalent Gulfstream 5 and Gulfstream 550. The C-37A/B is a twin-engine jet transport designed to transport high-ranking government officials worldwide. The designed service life is 40,000 hours with an average of 28,000 hours remaining. Support funding for emerging modification requirements to support PMA, A&AS, equipment and other as required.

Service bulletins and low cost modifications are necessary for continuing Federal Aviation Administration (FAA) certification while improving flight safety, reliability, and maintainability.

Funding may be used to address Diminishing Manufacturing Sources (DMS) issues.

Funding for this exhibit is contained in PE 0401314F.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	**Date:** February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 3: Airlift Aircraft	**P-1 Line Item Number / Title:** C130J0 / C-130J Mods

ID Code (A=Service Ready, B=Not Service Ready): A	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	0.000	10.727	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	10.727
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	10.727	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	10.727
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**10.727**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**-**	**10.727**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:
No text provided.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 4: Trainer Aircraft	**P-1 Line Item Number / Title:** GLID00 / Glider Mods

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0804748F	Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	4.330	0.473	0.136	0.137	0.000	0.137	0.138	0.141	0.144	0.147	-	5.646
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	4.330	0.473	0.136	0.137	0.000	0.137	0.138	0.141	0.144	0.147	-	5.646
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**4.330**	**0.473**	**0.136**	**0.137**	**0.000**	**0.137**	**0.138**	**0.141**	**0.144**	**0.147**	**-**	**5.646**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This line item funds modifications to the TG-15 and TG-16 gliders, T-41, T-51, T-53 and UV-18 aircraft used at the United States Air Force Academy. Among gliders there are two TG-15A aircraft with a design service life of 6,000 hours, three TG-15B aircraft with a design service life of 6,000 hours, and 19 TG-16A aircraft with a design service life of 12,000. Powered flight consists of four T-41D aircraft with a design service life of 60,000 hours, three T-51A aircraft with a design service life of 60,000 hours and 24 T-53A aircraft with a design service life of 12,000 hours. To support parachute jumping there are three UV-18B aircraft with a design service life of 40,000 hours. The primary effort in FY19 is Low Cost Modifications, which includes various AF Academy simulator system procurements, FAA Service Bulletin, and Air Worthiness Directives.

Funding for this exhibit contained in PE 0804748F.

Justification:

Where applicable, justification for individual modifications is provided in the P-3A exhibits.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 4: Trainer Aircraft	**P-1 Line Item Number / Title:** JPAT00 / T-6

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0604233F	Other Related Program Elements: 0604233F

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	14.957	12.765	35.706	22.550	0.000	22.550	11.609	26.749	14.161	14.417	42.707	195.621
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	14.957	12.765	35.706	22.550	0.000	22.550	11.609	26.749	14.161	14.417	42.707	195.621
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**14.957**	**12.765**	**35.706**	**22.550**	**0.000**	**22.550**	**11.609**	**26.749**	**14.161**	**14.417**	**42.707**	**195.621**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Joint Primary Aircraft Training System (JPATS) T-6 replaces the USAF T-37B and USN T-34C training aircraft and their associated ground based training systems. The JPATS T-6 aircraft provides significant improvements over the aircraft it replaced, including a 0/0 ejection seat which accommodates a larger anthropometric pilot population, a pressurized cockpit, gravitational-force (g-force) strain reduction capabilities, and increased birdstrike protection. There are currently 443 T-6A aircraft in the Air Force inventory. The aircraft were designed with a 24 year service life. Remaining service life is up to 21 years from the final delivery in May 2010. The primary modifications in FY 2019 include Aircrew Training Device (ATD) Modernization and Avionics Upgrades FAA Compliance. Funding may be used to address Diminishing Manufacturing Sources and Material Shortages (DMSMS) issues.

Funding contained in this platform's documentation directly aids Air Education Training Command flying training enterprise to continue its overall pilot production increase starting in FY 2020 thus reducing the USAF Pilot Shortage.

Funding for this exhibit contained in PE 0804740F.

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 4: Trainer Aircraft	**P-1 Line Item Number / Title:** JPAT00 / T-6

ID Code (A=Service Ready, B=Not Service Ready): B | **Program Elements for Code B Items:** 0604233F | **Other Related Program Elements:** 0604233F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	9871 / COCKPIT UPGRADES (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / -
P-40a***	9873 / Canopy Fracture Initiation System (Reliability & Maintainability)				- / 0.727	- / 0.140	- / 0.108	- / -	- / -	- / -
P-40a***	9878 / Aircrew Training Device (ATD) Modernization (Capability Improvement)				- / 13.337	- / 12.625	- / 9.369	- / 2.579	- / -	- / 2.579
P-40a***	9890 / Controlled Flight Into Terrain Avoidance (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / -
P-40a***	99999X / Low Cost Modifications (Capability Improvement)				- / 0.893	- / 0.000	- / 1.116	- / 0.681	- / -	- / 0.681
P-3a	9877 / Avionics Upgrades FAA Compliance (Reliability & Maintainability)		A		- / 0.000	- / 0.000	- / 25.113	- / 19.290	- / 0.000	- / 19.290
P-40	**Total Gross/Weapon System Cost**				**- / 14.957**	**- / 12.765**	**- / 35.706**	**- / 22.550**	**- / 0.000**	**- / 22.550**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	9871 / COCKPIT UPGRADES (Capability Improvement)				- / -	- / 11.255	- / 6.532	- / 1.482	- / 18.398	- / 37.667
P-40a***	9873 / Canopy Fracture Initiation System (Reliability & Maintainability)				- / -	- / -	- / -	- / -	- / -	- / 0.975
P-40a***	9878 / Aircrew Training Device (ATD) Modernization (Capability Improvement)				- / 8.458	- / 15.494	- / 4.121	- / 5.218	- / -	- / 71.201
P-40a***	9890 / Controlled Flight Into Terrain Avoidance (Capability Improvement)				- / -	- / -	- / 3.508	- / 7.717	- / 24.309	- / 35.534
P-40a***	99999X / Low Cost Modifications (Capability Improvement)				- / 0.473	- / 0.000	- / 0.000	- / 0.000	- / -	- / 3.163
P-3a	9877 / Avionics Upgrades FAA Compliance (Reliability & Maintainability)		A		- / 2.678	- / 0.000	- / -	- / -	- / -	- / 47.081
P-40	**Total Gross/Weapon System Cost**				**- / 11.609**	**- / 26.749**	**- / 14.161**	**- / 14.417**	**- / 42.707**	**- / 195.621**

*** Although this is an Exhibit P-40a item, the actual exhibit is not included since all of the required information for this item is already being shown here.

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 4	**P-1 Line Item Number / Title:** JPAT00 / T-6	**Modification Number / Title:** 9877 / Avionics Upgrades FAA Compliance
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	0.000	25.113	19.290	0.000	19.290	2.678	0.000	-	-	-	47.081
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	0.000	25.113	19.290	0.000	19.290	2.678	0.000	-	-	-	47.081
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**0.000**	**25.113**	**19.290**	**0.000**	**19.290**	**2.678**	**0.000**	**-**	**-**	**-**	**47.081**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The overall goal of the modification is to be in compliance with the 28 May 2010 Federal Aviation Administration (FAA) release of DoT/FAA, 14 CFR Par 91.225: Automatic Dependent Surveillance Broadcast (ADS-B) Out Performance Requirements to Support Air Traffic Control (ATC) Service Final Rule. This mandate stipulates that all aircraft are required to have unrestricted access to operate in Classes A, B, and C airspace, certain Class E airspace, and other specified airspace requiring ADS-B Out, must be in compliance with this regulation by January 1, 2020. Upgrading to ADS-B Out will require significant avionics system modifications to the T-6 fleet and will include the addition of a Wide Area Augmentation System (WAAS) capable GPS.

Milestone/Development Status

Development for this effort began in FY16 under PE 0604233F.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 4	**P-1 Line Item Number / Title:** JPAT00 / T-6	**Modification Number / Title:** 9877 / Avionics Upgrades FAA Compliance
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: T-6A	**Modification Type:** Reliability & Maintainability	**Related RDT&E PEs:** 0604233F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Model B Kits												
B Kits												
Recurring												
Model B Kits:EQUIPMENT Group B (Active)	- / -	- / -	- / -	443 / 5.393	- / -	443 / 5.393	- / -	- / -	- / -	- / -	- / -	443 / 5.393
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / 5.393*	*- / -*	*- / 5.393*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 5.393*
Subtotal: Model B Kits	*- / -*	*- / -*	*- / -*	*- / 5.393*	*- / -*	*- / 5.393*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 5.393*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / -*	*- / 5.393*	*- / -*	*- / 5.393*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 5.393*
Support *(All Modification Items)*												
Change Orders	- / -	- / -	- / -	- / 2.603	- / -	- / 2.603	- / -	- / -	- / -	- / -	- / -	- / 2.603
PMA - Contractor Services	- / -	- / -	- / 1.042	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.042
OTHER GOVT	- / -	- / -	- / 24.071	- / 6.046	- / -	- / 6.046	- / 1.534	- / -	- / -	- / -	- / -	- / 31.651
Subtotal: Support	*- / -*	*- / -*	*- / 25.113*	*- / 8.649*	*- / -*	*- / 8.649*	*- / 1.534*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 35.296*
Installation												
Modification Item 1 of 1: Model B Kits	- / -	- / -	- / -	363 / 5.248	- / -	363 / 5.248	80 / 1.144	- / -	- / -	- / -	- / -	443 / 6.392
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*363 / 5.248*	*- / -*	*363 / 5.248*	*80 / 1.144*	*- / -*	*- / -*	*- / -*	*- / -*	*443 / 6.392*
Total												
Total Cost (Procurement + Support + Installation)	**0.000**	**0.000**	**25.113**	**19.290**	**0.000**	**19.290**	**2.678**	**0.000**	**-**	**-**	**-**	**47.081**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 4	**P-1 Line Item Number / Title:** JPAT00 / T-6	**Modification Number / Title:** 9877 / Avionics Upgrades FAA Compliance

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 1 of 1: Model B Kits

Manufacturer Information

Manufacturer Name: TBD

Manufacturer Location: TBD

Administrative Leadtime *(in Months)*: 0

Production Leadtime *(in Months)*: 3

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates			Oct 2018				
Delivery Dates			Jan 2019				

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	363 / 5.248	- / -	363 / 5.248	80 / 1.144	- / -	- / -	- / -	- / -	443 / 6.392
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	363 / 5.248	- / -	363 / 5.248	80 / 1.144	- / -	- / -	- / -	- / -	443 / 6.392

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	141	136	86	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	443
Out	0	-	-	-	-	-	-	-	-	-	141	136	86	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	443

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 4: Trainer Aircraft	**P-1 Line Item Number / Title:** T00100 / T-1

ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0804741F	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	2.954	13.294	21.477	21.952	0.000	21.952	36.411	37.073	38.163	37.470	23.858	232.652
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	2.954	13.294	21.477	21.952	0.000	21.952	36.411	37.073	38.163	37.470	23.858	232.652
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**2.954**	**13.294**	**21.477**	**21.952**	**0.000**	**21.952**	**36.411**	**37.073**	**38.163**	**37.470**	**23.858**	**232.652**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This line item funds modifications to the T-1A aircraft. The T-1A is a missionized Beech 400A used in the Airlift/Tanker track of USAF Specialized Undergraduate Pilot Training (SUPT) and in Combat Systems Officer (CSO) training for Air Education and Training Command (AETC). It is powered by two Pratt and Whitney JT15D-5 turbofan engines mounted on the aft fuselage producing 2,900 pounds of thrust each. Avionics include Ultra High Frequency (UHF) and Very High Frequency (VHF) radios, Inertial Navigation System (INS), Tactical Air Navigation (TACAN), Airborne Direction Finder (ADF), and two Very High Frequency Omni Range/Instrument Landing System (VOR/ILS). Aircraft modified for CSO training include a Global Positioning System (GPS)-driven synthetic radar and simulated Radar Warning Receiver (RWR) in the right seat flight deck position to be utilized by the student CSO. A second student station and a second instructor station have also been added in the rear of the aircraft. There are 178 T-1A aircraft in the inventory. Design service life is 18,000 flight hours. Based on current usage, that threshold will be reached in approximately 2032. The primary effort in FY2019 is the Avionics Modification. Funding contained in this platform's documentation directly aids Air Education Training Command flying training enterprise to continue its overall pilot production increase starting in FY2020 thus reducing the USAF Pilot Shortage.

Funding may be used to address Diminishing Manufacturing Sources (DMS) issues. Funding for this exhibit contained in PE 0804741F.

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	**Date:** February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 4: Trainer Aircraft	**P-1 Line Item Number / Title:** T00100 / T-1

ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0804741F	**Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-40a***	99999X / Low Cost Modifications (Reliability & Maintainability)				- / 1.365	- / 0.300	- / 0.305	- / 0.310	- / -	- / 0.310
P-3a	8997 / Avionics Modification (Capability Improvement)		B		- / 1.589	- / 12.994	- / 21.172	- / 21.642	- / 0.000	- / 21.642
P-40	**Total Gross/Weapon System Cost**				**- / 2.954**	**- / 13.294**	**- / 21.477**	**- / 21.952**	**- / 0.000**	**- / 21.952**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-40a***	99999X / Low Cost Modifications (Reliability & Maintainability)				- / 0.316	- / 0.300	- / 0.300	- / 0.300	- / -	- / 3.496
P-3a	8997 / Avionics Modification (Capability Improvement)		B		- / 36.095	- / 36.773	- / 37.863	- / 37.170	- / 23.858	- / 229.156
P-40	**Total Gross/Weapon System Cost**				**- / 36.411**	**- / 37.073**	**- / 38.163**	**- / 37.470**	**- / 23.858**	**- / 232.652**

*** Although this is an Exhibit P-40a item, the actual exhibit is not included since all of the required information for this item is already being shown here.

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 4	**P-1 Line Item Number / Title:** T00100 / T-1	**Modification Number / Title:** 8997 / Avionics Modification
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	1.589	12.994	21.172	21.642	0.000	21.642	36.095	36.773	37.863	37.170	23.858	229.156
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1.589	12.994	21.172	21.642	0.000	21.642	36.095	36.773	37.863	37.170	23.858	229.156
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1.589**	**12.994**	**21.172**	**21.642**	**0.000**	**21.642**	**36.095**	**36.773**	**37.863**	**37.170**	**23.858**	**229.156**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	0.000	1.257	0.927	-	0.927	0.886	0.843	0.658	0.665	15.238	20.474
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The justification/approval for the T-1A Avionics Modification Program is documented on an AF Form 1067, signed February 2014 by AETC/A5/8/9. The 1067 was approved by the Air Force Requirement Oversight Council in June 2014, which established the requirement identified above to replace the existing avionics suite throughout the fleet of 178 aircraft, 16 Operational Flight Trainers, and 14 Part Task Trainers.

This effort will require integration engineering for the installation of a current industry standard avionics suite with the legacy aircraft. $35M of FY17 and FY18 budgeted funds will be used for contract award, which supports kit proof and modification installations in a total of 9 aircraft. The program has been supplemented with Advisory and Assistance Services (A&AS) manpower to ensure it can maintain its current schedule.

Milestone/Development Status

No development, Line Replaceable Units (LRUs) will be utilized for this modification effort.

Contract Award: The award is now projected to award in the 2nd quarter of FY18.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 4	**P-1 Line Item Number / Title:** T00100 / T-1	**Modification Number / Title:** 8997 / Avionics Modification
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: T-1A	**Modification Type:** Capability Improvement	**Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: T-1A Avionics Replacement Kit (ARK)												
A Kits												
Recurring												
T-1A Avionics Replacement Kit (ARK):INSTALL KITS Group A (Active)	0 / 0.000	- / -	9 / 1.229	19 / 0.435	- / -	19 / 0.435	29 / 3.437	31 / 3.765	33 / 4.122	32 / 4.115	25 / 3.682	178 / 20.785
Subtotal: Recurring	*- / 0.000*	*- / -*	*- / 1.229*	*- / 0.435*	*- / -*	*- / 0.435*	*- / 3.437*	*- / 3.765*	*- / 4.122*	*- / 4.115*	*- / 3.682*	*- / 20.785*
B Kits												
Recurring												
T-1A Avionics Replacement Kit (ARK):EQUIPMENT Group B (Active)	- / -	- / -	9 / 3.687	19 / 3.754	- / -	19 / 3.754	29 / 10.072	31 / 11.057	33 / 12.104	32 / 12.075	25 / 9.991	178 / 62.740
Subtotal: Recurring	*- / -*	*- / -*	*- / 3.687*	*- / 3.754*	*- / -*	*- / 3.754*	*- / 10.072*	*- / 11.057*	*- / 12.104*	*- / 12.075*	*- / 9.991*	*- / 62.740*
Subtotal: T-1A Avionics Replacement Kit (ARK)	*- / 0.000*	*- / -*	*- / 4.916*	*- / 4.189*	*- / -*	*- / 4.189*	*- / 13.509*	*- / 14.822*	*- / 16.226*	*- / 16.190*	*- / 13.673*	*- / 83.525*
Subtotal: Procurement, All Modification Items	*- / 0.000*	*- / -*	*- / 4.916*	*- / 4.189*	*- / -*	*- / 4.189*	*- / 13.509*	*- / 14.822*	*- / 16.226*	*- / 16.190*	*- / 13.673*	*- / 83.525*
Support *(All Modification Items)*												
GROUP A: TOTAL NONRECURRING	- / 0.000	- / 11.500	- / 4.770	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 16.270
Change Orders	- / -	- / 0.174	- / 0.918	- / 1.730	- / -	- / 1.730	- / 1.704	- / 1.762	- / 1.760	- / 1.757	- / 0.710	- / 10.515
Data	- / -	- / 0.000	- / 2.243	- / 1.777	- / -	- / 1.777	- / 0.262	- / 0.269	- / 0.277	- / -	- / -	- / 4.828
SIM/TRAINER	- / -	- / -	1 / 1.042	3 / 5.245	- / -	3 / 5.245	3 / 6.264	3 / 5.494	3 / 4.730	3 / 4.864	- / -	16 / 27.639
SUPPORT-EQUIP	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000
A&AS	- / -	- / 0.580	- / 0.580	- / 0.580	- / -	- / 0.580	- / 0.580	- / 0.580	- / 0.580	- / 0.580	- / -	- / 4.060
PMA - Other Gov't Costs	- / 1.589	- / 0.740	- / 1.602	- / 5.566	- / -	- / 5.566	- / 3.502	- / 3.841	- / 3.444	- / 2.913	- / 2.130	- / 25.327
Subtotal: Support	*- / 1.589*	*- / 12.994*	*1 / 11.155*	*3 / 14.898*	*- / -*	*3 / 14.898*	*3 / 12.312*	*3 / 11.946*	*3 / 10.791*	*3 / 10.114*	*- / 2.840*	*16 / 88.639*
Installation												
Modification Item 1 of 1: T-1A Avionics Replacement Kit (ARK)	- / -	- / -	9 / 5.101	19 / 2.555	- / -	19 / 2.555	29 / 10.274	31 / 10.005	33 / 10.846	32 / 10.866	25 / 7.345	178 / 56.992
Subtotal: Installation	*- / -*	*- / -*	*9 / 5.101*	*19 / 2.555*	*- / -*	*19 / 2.555*	*29 / 10.274*	*31 / 10.005*	*33 / 10.846*	*32 / 10.866*	*25 / 7.345*	*178 / 56.992*
Total												
Total Cost (Procurement + Support + Installation)	**1.589**	**12.994**	**21.172**	**21.642**	**0.000**	**21.642**	**36.095**	**36.773**	**37.863**	**37.170**	**23.858**	**229.156**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 4	**P-1 Line Item Number / Title:** T00100 / T-1	**Modification Number / Title:** 8997 / Avionics Modification
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 1: T-1A Avionics Replacement Kit (ARK)

Manufacturer Information

Manufacturer Name: TBD	Manufacturer Location: Contractor Facility
Administrative Leadtime *(in Months)*: 1	Production Leadtime *(in Months)*: 1

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Feb 2018	Nov 2018	Nov 2019	Nov 2020	Nov 2021	Nov 2022
Delivery Dates		Mar 2018	Dec 2018	Dec 2019	Dec 2020	Dec 2021	Dec 2022

Installation Information

Method of Implementation: Contractor Facility

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	9 / 5.101	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 5.101
FY 2019	- / -	- / -	- / -	19 / 2.555	- / -	19 / 2.555	- / -	- / -	- / -	- / -	- / -	19 / 2.555
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	29 / 10.274	- / -	- / -	- / -	- / -	29 / 10.274
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	31 / 10.005	- / -	- / -	- / -	31 / 10.005
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	33 / 10.846	- / -	- / -	33 / 10.846
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	32 / 10.866	- / -	32 / 10.866
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	25 / 7.345	25 / 7.345
Total	- / -	- / -	9 / 5.101	19 / 2.555	- / -	19 / 2.555	29 / 10.274	31 / 10.005	33 / 10.846	32 / 10.866	25 / 7.345	178 / 56.992

Installation Schedule

		FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023					
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	0	-	-	0	0	0	2	3	4	5	5	5	4	7	7	7	8	7	8	8	8	8	8	9	8	8	8	8	8	25	178
Out	0	-	-	0	0	0	2	3	4	5	5	5	4	7	7	7	8	7	8	8	8	8	8	9	8	8	8	8	8	25	178

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 4: Trainer Aircraft	**P-1 Line Item Number / Title:** T03800 / T-38

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0804741F	Other Related Program Elements: 0604233F

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	132.742	33.590	51.641	70.623	0.000	70.623	35.076	38.026	39.624	38.489	31.656	471.467
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	132.742	33.590	51.641	70.623	0.000	70.623	35.076	38.026	39.624	38.489	31.656	471.467
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**132.742**	**33.590**	**51.641**	**70.623**	**0.000**	**70.623**	**35.076**	**38.026**	**39.624**	**38.489**	**31.656**	**471.467**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The T-38 is a twin engine, two seat (tandem), supersonic jet trainer used by Air Education Training Command as an advanced trainer in Specialized Undergraduate Pilot Training. Modifications are budgeted to enhance operational capability while improving flight safety, reliability, and maintainability. There are currently 505 T-38's in the Air Force inventory (53 T-38A, 6 AT-38B and 446 T-38C) with 5 T-38C's pending removal. The T-38 first entered service in 1960 and the average age is over 50 years old. The T-38 was designed with a 7,000 hour service life. Aircraft are now in their third service life and are sustained by upgrades and service life extensions. Funding may be used to address Diminishing Manufacturing Sources and Material shortages DMSMS) issues.

Funding for this exhibit contained in PE 0804741F.

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 4: Trainer Aircraft

P-1 Line Item Number / Title:
T03800 / T-38

ID Code (A=Service Ready, B=Not Service Ready): B | **Program Elements for Code B Items:** 0804741F | **Other Related Program Elements:** 0604233F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	6091 / Talon Repair, Inspection and Maintenance (Reliability & Maintainability)				- / -	- / -	- / -	- / 0.600	- / -	- / 0.600
P-40a***	6093 / T-38 Canopy (Safety)				- / -	- / -	- / -	- / -	- / -	- / -
P-40a***	99999A / LOW COST SAFETY MODIFICATIONS (Safety)				- / 0.029	- / 0.000	- / 0.005	- / 0.005	- / -	- / 0.005
P-40a***	99999X / Low Cost Modifications (Service Life Extension)				- / 0.031	- / 0.000	- / 0.006	- / 0.006	- / -	- / 0.006
P-3a	6088 / Pacer Classic III (Service Life Extension)		A		- / 106.057	- / 16.398	- / 22.477	- / 32.092	- / 0.000	- / 32.092
P-3a	6090 / T-38 Avionics (Reliability & Maintainability)		A		- / 26.625	- / 17.192	- / 24.960	- / 29.530	- / 0.000	- / 29.530
P-3a	6092 / T-38 A/B ADS-B Out (Reliability & Maintainability)		A		- / 0.000	- / 0.000	- / 4.193	- / 8.390	- / 0.000	- / 8.390
P-40	**Total Gross/Weapon System Cost**				**- / 132.742**	**- / 33.590**	**- / 51.641**	**- / 70.623**	**- / 0.000**	**- / 70.623**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	6091 / Talon Repair, Inspection and Maintenance (Reliability & Maintainability)				- / -	- / 0.600	- / -	- / -	- / -	- / 1.200
P-40a***	6093 / T-38 Canopy (Safety)				- / 1.589	- / 1.589	- / 1.589	- / 1.589	- / -	- / 6.356
P-40a***	99999A / LOW COST SAFETY MODIFICATIONS (Safety)				- / 0.005	- / 0.005	- / 0.005	- / 0.005	- / -	- / 0.059
P-40a***	99999X / Low Cost Modifications (Service Life Extension)				- / 0.006	- / 0.006	- / 0.006	- / 0.006	- / -	- / 0.067
P-3a	6088 / Pacer Classic III (Service Life Extension)		A		- / 33.348	- / 35.342	- / 36.424	- / 35.297	- / 31.656	- / 349.091
P-3a	6090 / T-38 Avionics (Reliability & Maintainability)		A		- / 0.128	- / 0.484	- / 1.600	- / 1.592	- / 0.000	- / 102.111
P-3a	6092 / T-38 A/B ADS-B Out (Reliability & Maintainability)		A		- / 0.000	- / -	- / -	- / -	- / -	- / 12.583
P-40	**Total Gross/Weapon System Cost**				**- / 35.076**	**- / 38.026**	**- / 39.624**	**- / 38.489**	**- / 31.656**	**- / 471.467**

*** Although this is an Exhibit P-40a item, the actual exhibit is not included since all of the required information for this item is already being shown here.

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 4	**P-1 Line Item Number / Title:** T03800 / T-38	**Modification Number / Title:** 6088 / Pacer Classic III
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	106.057	16.398	22.477	32.092	0.000	32.092	33.348	35.342	36.424	35.297	31.656	349.091
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	106.057	16.398	22.477	32.092	0.000	32.092	33.348	35.342	36.424	35.297	31.656	349.091
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**106.057**	**16.398**	**22.477**	**32.092**	**0.000**	**32.092**	**33.348**	**35.342**	**36.424**	**35.297**	**31.656**	**349.091**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Pacer Classic III (PCIII) is a depot-level modification program which replaces known life-limited components and ensures structural sustainment of 180 T-38C aircraft which are at high risk of grounding. Timely modifications will ensure continued execution of the Air Education and Training Command (AETC) advanced undergraduate pilot training mission. PCIII will replace major structural components within the aircraft fuselage including major longerons, bulkhead/formers, internal skins and structural floors. These modifications have been categorized as Safety of Flight and determined by HQ Air Force Materiel Command to be required to correct material deficiencies to ensure safety of personnel, systems or equipment. If uncorrected, the hazard will ground the system or equipment, restrict flight or ground operations, or result in unacceptable risk to personnel. PCIII program requirements are documented in Air Force Form 1067: AETC 2016-037. PC III installations will be performed by the 309 Maintenance Wing geographically separated unit at Randolph AFB, TX.

Milestone/Development Status

Production and deployment underway.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 4	**P-1 Line Item Number / Title:** T03800 / T-38	**Modification Number / Title:** 6088 / Pacer Classic III
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: T-38	**Modification Type:** Service Life Extension	**Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Aircraft Modification Kits												
A Kits												
Recurring												
Aircraft Modification Kits:INSTALL KITS Group A (Active)	85 / 33.747	0 / 0.000	16 / 5.600	18 / 6.600	- / -	18 / 6.600	18 / 5.992	18 / 7.200	18 / 7.200	7 / 5.100	- / -	180 / 71.439
Subtotal: Recurring	*- / 33.747*	*- / 0.000*	*- / 5.600*	*- / 6.600*	*- / -*	*- / 6.600*	*- / 5.992*	*- / 7.200*	*- / 7.200*	*- / 5.100*	*- / -*	*- / 71.439*
Subtotal: Aircraft Modification Kits	*- / 33.747*	*- / 0.000*	*- / 5.600*	*- / 6.600*	*- / -*	*- / 6.600*	*- / 5.992*	*- / 7.200*	*- / 7.200*	*- / 5.100*	*- / -*	*- / 71.439*
Subtotal: Procurement, All Modification Items	*- / 33.747*	*- / 0.000*	*- / 5.600*	*- / 6.600*	*- / -*	*- / 6.600*	*- / 5.992*	*- / 7.200*	*- / 7.200*	*- / 5.100*	*- / -*	*- / 71.439*
Support *(All Modification Items)*												
GROUP A: TOTAL NONRECURRING	0 / 17.791	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 17.791
OTHER GOVT	- / 12.263	- / 0.300	- / 0.125	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 12.688
PMA - Contractor Services	- / 2.439	- / 0.630	- / 0.200	- / 0.300	- / -	- / 0.300	- / 0.300	- / 0.300	- / 0.300	- / 0.300	- / 0.300	- / 5.069
PMA - Other Gov't Costs	- / 1.066	- / 0.051	- / 0.017	- / 0.050	- / -	- / 0.050	- / 0.050	- / 0.070	- / 0.060	- / 0.050	- / 0.050	- / 1.464
Subtotal: Support	*0 / 33.559*	*- / 0.981*	*- / 0.342*	*- / 0.350*	*- / -*	*- / 0.350*	*- / 0.350*	*- / 0.370*	*- / 0.360*	*- / 0.350*	*- / 0.350*	*0 / 37.012*
Installation												
Modification Item 1 of 1: Aircraft Modification Kits	17 / 38.751	18 / 15.417	18 / 16.535	18 / 25.142	- / -	18 / 25.142	18 / 27.006	18 / 27.772	18 / 28.864	18 / 29.847	37 / 31.306	180 / 240.640
Subtotal: Installation	*17 / 38.751*	*18 / 15.417*	*18 / 16.535*	*18 / 25.142*	*- / -*	*18 / 25.142*	*18 / 27.006*	*18 / 27.772*	*18 / 28.864*	*18 / 29.847*	*37 / 31.306*	*180 / 240.640*
Total												
Total Cost (Procurement + Support + Installation)	**106.057**	**16.398**	**22.477**	**32.092**	**0.000**	**32.092**	**33.348**	**35.342**	**36.424**	**35.297**	**31.656**	**349.091**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 4	**P-1 Line Item Number / Title:** T03800 / T-38	**Modification Number / Title:** 6088 / Pacer Classic III
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 1 of 1: Aircraft Modification Kits

Manufacturer Information

Manufacturer Name: CPI Aero	Manufacturer Location: Edgewood, NY
Administrative Leadtime *(in Months)*: 5	Production Leadtime *(in Months)*: 18

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Jun 2018	Mar 2019	Mar 2020	Dec 2020	Dec 2021	Mar 2023
Delivery Dates		Dec 2019	Sep 2020	Sep 2021	Jun 2022	Jun 2023	Sep 2024

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	17 / 38.751	18 / 15.417	18 / 16.535	18 / 25.142	- / -	18 / 25.142	14 / 18.654	- / -	- / -	- / -	- / -	85 / 114.499
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	4 / 8.352	12 / 20.058	- / -	- / -	- / -	16 / 28.410
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 7.714	12 / 20.846	- / -	- / -	18 / 28.560
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 8.018	12 / 21.556	- / -	18 / 29.574
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 8.291	12 / 10.153	18 / 18.444
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	18 / 15.230	18 / 15.230
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 5.923	7 / 5.923
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	17 / 38.751	18 / 15.417	18 / 16.535	18 / 25.142	- / -	18 / 25.142	18 / 27.006	18 / 27.772	18 / 28.864	18 / 29.847	37 / 31.306	180 / 240.640

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	17	4	5	4	5	4	4	5	5	4	4	5	5	5	4	5	4	5	4	5	4	5	4	5	4	5	4	5	4	37	180
Out	12	1	2	2	4	5	4	5	4	4	5	5	4	4	5	5	5	4	5	4	5	4	5	4	5	4	5	4	5	50	180

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 4	**P-1 Line Item Number / Title:** T03800 / T-38	**Modification Number / Title:** 6090 / T-38 Avionics
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	26.625	17.192	24.960	29.530	0.000	29.530	0.128	0.484	1.600	1.592	0.000	102.111
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	26.625	17.192	24.960	29.530	0.000	29.530	0.128	0.484	1.600	1.592	0.000	102.111
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**26.625**	**17.192**	**24.960**	**29.530**	**0.000**	**29.530**	**0.128**	**0.484**	**1.600**	**1.592**	**0.000**	**102.111**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The T-38C Avionics Upgrade Program installed a "Glass Cockpit" into the T-38 jet trainer and re-designated the upgraded aircraft from the T-38A/B to the T-38C model. The Avionics Upgrade Program modification was completed in 2007 and utilized a Commercial Off-The-Shelf/Non-Developmental Item approach to acquire kits. The system is in the operations and maintenance phase. Off-equipment repair of the Line Replaceable Units, engineering and software support services is provided via Contractor Logistics Support. Contract, FA8211-12-C-0001, identified significant obsolescence issues with the Heads-Up Display system, the Mission Display Processor, Very High Frequency Communication receiver transmitter and the Very High Frequency Navigation radio.

Contract #FA8211-16-D-0001 was awarded 8 January 2016. The contract is a Type D Indefinite Delivery, Indefinite Quantity contract competitively awarded to address T-38C avionics system obsolescence issues and provide Contractor Logistics Support follow-on contract support. Avionics system Diminishing Manufacturing Sources and Material Shortages mitigation efforts began immediately upon award and the follow-on Contractor Logistics Support effort began(FA8211-12-C-0001), 1 April 2017.

Mitigation plans include the following: The program began non-recurring development in FY2016 for a replacement Mission Display Processor, Very High Frequency Communication receiver transmitter and the Very High Frequency Navigation radio and refurbishment of the Heads-Up Display System. Procurement of the Mission Display Processor, Very High Frequency Communication receiver transmitter and the Very High Frequency Navigation radio began in FY2016. Heads-Up Display System and ADS-B system procurement began in FY2017.

The Federal Aviation Administration has mandated that all aircraft flying in Federal Aviation Administration controlled air space be equipped with Automatic Dependent Surveillance - Broadcast (ADS-B) Out equipment by 1 January 2020. The T-38C program began development and integration of a solution upon FA8211-16-D-0001 contract award in January 2016 and system procurement began in FY2017. The program has incentivized the contractor to meet the 01 January 2020 FAA mandate. All USAF ADS-B kit buys have been completed. The contracted schedule has all T-38C aircraft ADS-B compliant by 12 February 2020. Approximately 50 aircraft will not meet mandate based on the current schedule. The primary schedule driver is the Radio Frequency Authorization process which could take up to a year after developmental test completion.

Milestone/Development Status

All programs, Mission Display Processor,Heads-Up Display,Very High Frequency Radios and ADS-B, are in integration and test on the Systems Integration Lab at Boeing St. Louis. Developmental Test at Edwards will begin by the 2nd quarter of FY18.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 4	P-1 Line Item Number / Title: T03800 / T-38	Modification Number / Title: 6090 / T-38 Avionics
ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:	
Models of Systems Affected: T-38	Modification Type: Reliability & Maintainability	Related RDT&E PEs: 0604233F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 5: Heads-Up Display System												
B Kits												
Recurring												
Heads-Up Display System:EQUIPMENT Group B (Active)	- / -	101 / 4.133	139 / 10.311	202 / 20.621	- / -	202 / 20.621	- / -	- / -	- / -	- / -	- / -	442 / 35.065
Subtotal: Recurring	*- / -*	*- / 4.133*	*- / 10.311*	*- / 20.621*	*- / -*	*- / 20.621*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 35.065*
Subtotal: Heads-Up Display System	*- / -*	*- / 4.133*	*- / 10.311*	*- / 20.621*	*- / -*	*- / 20.621*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 35.065*
Modification Item 2 of 5: Mission Display Processor												
B Kits												
Recurring												
Mission Display Processor:EQUIPMENT Group B (Active)	442 / 16.560	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	442 / 16.560
Subtotal: Recurring	*- / 16.560*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 16.560*
Subtotal: Mission Display Processor	*- / 16.560*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 16.560*
Modification Item 3 of 5: Multi-Function Display												
B Kits												
Recurring												
Multi-Function Display:EQUIPMENT Group B (Active)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	58 / 0.484	192 / 1.600	192 / 1.592	- / -	442 / 3.676
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.484*	*- / 1.600*	*- / 1.592*	*- / -*	*- / 3.676*
Subtotal: Multi-Function Display	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.484*	*- / 1.600*	*- / 1.592*	*- / -*	*- / 3.676*
Modification Item 4 of 5: T-38C ADS-B												
A Kits												
Recurring												
T-38C ADS-B:INSTALL KITS Group A (Active)	- / -	422 / 1.660	20 / 0.079	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	442 / 1.739
Subtotal: Recurring	*- / -*	*- / 1.660*	*- / 0.079*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 1.739*
B Kits												
Recurring												
T-38C ADS-B:EQUIPMENT Group B (Active)	- / -	422 / 6.890	20 / 0.327	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	442 / 7.217
Subtotal: Recurring	*- / -*	*- / 6.890*	*- / 0.327*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 7.217*
Subtotal: T-38C ADS-B	*- / -*	*- / 8.550*	*- / 0.406*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 8.956*
Modification Item 5 of 5: VHF Nav/Comm Radios												

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 4	**P-1 Line Item Number / Title:** T03800 / T-38	**Modification Number / Title:** 6090 / T-38 Avionics
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: T-38	**Modification Type:** Reliability & Maintainability	**Related RDT&E PEs:** 0604233F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
A Kits												
Recurring												
VHF Nav/Comm Radios:INSTALL KITS Group A (Active)	170 / 0.033	- / -	239 / 0.046	33 / 0.006	- / -	33 / 0.006	- / -	- / -	- / -	- / -	- / -	442 / 0.085
Subtotal: Recurring	*- / 0.033*	*- / -*	*- / 0.046*	*- / 0.006*	*- / -*	*- / 0.006*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.085*
B Kits												
Recurring												
VHF Nav/Comm Radios:EQUIPMENT Group B (Active)	170 / 10.032	- / -	239 / 14.104	33 / 1.947	- / -	33 / 1.947	- / -	- / -	- / -	- / -	- / -	442 / 26.083
Subtotal: Recurring	*- / 10.032*	*- / -*	*- / 14.104*	*- / 1.947*	*- / -*	*- / 1.947*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 26.083*
Subtotal: VHF Nav/Comm Radios	*- / 10.065*	*- / -*	*- / 14.150*	*- / 1.953*	*- / -*	*- / 1.953*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 26.168*
Subtotal: Procurement, All Modification Items	*- / 26.625*	*- / 12.683*	*- / 24.867*	*- / 22.574*	*- / -*	*- / 22.574*	*- / -*	*- / 0.484*	*- / 1.600*	*- / 1.592*	*- / -*	*- / 90.425*
Support *(All Modification Items)*												
A&AS	- / -	- / 0.009	- / -	- / -	- / -	- / -	- / 0.033	- / -	- / -	- / -	- / -	- / 0.042
PMA - Other Gov't Costs	- / -	- / -	- / 0.093	- / 0.130	- / -	- / 0.130	- / 0.060	- / -	- / -	- / -	- / -	- / 0.283
OTHER GOVT	- / -	- / 4.500	- / -	- / -	- / -	- / -	- / 0.035	- / -	- / -	- / -	- / -	- / 4.535
Subtotal: Support	*- / -*	*- / 4.509*	*- / 0.093*	*- / 0.130*	*- / -*	*- / 0.130*	*- / 0.128*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 4.860*
Installation												
Modification Item 1 of 5: Heads-Up Display System	- / -	- / -	- / -	442 / 1.552	- / -	442 / 1.552	- / -	- / -	- / -	- / -	- / -	442 / 1.552
Modification Item 2 of 5: Mission Display Processor	- / -	- / -	- / -	442 / 1.551	- / -	442 / 1.551	- / -	- / -	- / -	- / -	- / -	442 / 1.551
Modification Item 4 of 5: T-38C ADS-B	- / -	- / -	- / -	442 / 2.172	- / -	442 / 2.172	- / -	- / -	- / -	- / -	- / -	442 / 2.172
Modification Item 5 of 5: VHF Nav/Comm Radios	- / -	- / -	- / -	442 / 1.551	- / -	442 / 1.551	- / -	- / -	- / -	- / -	- / -	442 / 1.551
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*1,768 / 6.826*	*- / -*	*1,768 / 6.826*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*1,768 / 6.826*
Total												
Total Cost (Procurement + Support + Installation)	**26.625**	**17.192**	**24.960**	**29.530**	**0.000**	**29.530**	**0.128**	**0.484**	**1.600**	**1.592**	**0.000**	**102.111**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 4	**P-1 Line Item Number / Title:** T03800 / T-38	**Modification Number / Title:** 6090 / T-38 Avionics
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 1 of 5: Heads-Up Display System

Manufacturer Information

Manufacturer Name: Boeing	Manufacturer Location: St. Louis, MO
Administrative Leadtime *(in Months)*: 0	Production Leadtime *(in Months)*: 0

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Oct 2016	Oct 2017	Oct 2018				
Delivery Dates	Oct 2016	Oct 2017	Oct 2018				

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	101 / 0.344	- / -	101 / 0.344	- / -	- / -	- / -	- / -	- / -	101 / 0.344
FY 2018	- / -	- / -	- / -	139 / 0.501	- / -	139 / 0.501	- / -	- / -	- / -	- / -	- / -	139 / 0.501
FY 2019	- / -	- / -	- / -	202 / 0.707	- / -	202 / 0.707	- / -	- / -	- / -	- / -	- / -	202 / 0.707
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	442 / 1.552	- / -	442 / 1.552	- / -	- / -	- / -	- / -	- / -	442 / 1.552

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	110	110	110	112	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	442
Out	0	-	-	-	-	-	-	-	-	110	110	110	112	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	442

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 4	**P-1 Line Item Number / Title:** T03800 / T-38	**Modification Number / Title:** 6090 / T-38 Avionics
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 2 of 5: Mission Display Processor

Manufacturer Information

Manufacturer Name: Boeing	Manufacturer Location: St. Louis, MO
Administrative Leadtime *(in Months)*: 0	Production Leadtime *(in Months)*: 0

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	442 / 1.551	- / -	442 / 1.551	- / -	- / -	- / -	- / -	- / -	442 / 1.551
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	442 / 1.551	- / -	442 / 1.551	- / -	- / -	- / -	- / -	- / -	442 / 1.551

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	110	110	110	112	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	442
Out	0	-	-	-	-	-	-	-	-	110	110	110	112	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	442

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 4	**P-1 Line Item Number / Title:** T03800 / T-38	**Modification Number / Title:** 6090 / T-38 Avionics

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 3 of 5: Multi-Function Display

Manufacturer Information

Manufacturer Name: Market Research and Planning

Manufacturer Location: Unknown

Administrative Leadtime *(in Months)*: 3

Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates					Jan 2021	Jan 2022	Jan 2023
Delivery Dates					Jan 2022	Jan 2023	Jan 2024

Installation Information

Method of Implementation (Organic): Org/Intermediate

Installation Quantity: 442

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 4	**P-1 Line Item Number / Title:** T03800 / T-38	**Modification Number / Title:** 6090 / T-38 Avionics
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 4 of 5: T-38C ADS-B

Manufacturer Information

Manufacturer Name: Boeing	Manufacturer Location: St. Louis, MO
Administrative Leadtime *(in Months)*: 0	Production Leadtime *(in Months)*: 0

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Jan 2017	Jan 2018					
Delivery Dates	Jan 2017	Jan 2018					

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	422 / 2.073	- / -	422 / 2.073	- / -	- / -	- / -	- / -	- / -	422 / 2.073
FY 2018	- / -	- / -	- / -	20 / 0.099	- / -	20 / 0.099	- / -	- / -	- / -	- / -	- / -	20 / 0.099
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	442 / 2.172	- / -	442 / 2.172	- / -	- / -	- / -	- / -	- / -	442 / 2.172

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	110	110	110	112	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	442
Out	0	-	-	-	-	-	-	-	-	110	110	110	112	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	442

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 4	**P-1 Line Item Number / Title:** T03800 / T-38	**Modification Number / Title:** 6090 / T-38 Avionics
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 5 of 5: VHF Nav/Comm Radios

Manufacturer Information

Manufacturer Name: Boeing	Manufacturer Location: St. Louis, MO
Administrative Leadtime *(in Months)*: 0	Production Leadtime *(in Months)*: 0

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Apr 2018	Apr 2019				
Delivery Dates		Apr 2018	Apr 2019				

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	170 / 0.611	- / -	170 / 0.611	- / -	- / -	- / -	- / -	- / -	170 / 0.611
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	239 / 0.830	- / -	239 / 0.830	- / -	- / -	- / -	- / -	- / -	239 / 0.830
FY 2019	- / -	- / -	- / -	33 / 0.110	- / -	33 / 0.110	- / -	- / -	- / -	- / -	- / -	33 / 0.110
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	442 / 1.551	- / -	442 / 1.551	- / -	- / -	- / -	- / -	- / -	442 / 1.551

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	110	110	110	112	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	442
Out	0	-	-	-	-	-	-	-	-	110	110	110	112	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	442

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 4	**P-1 Line Item Number / Title:** T03800 / T-38	**Modification Number / Title:** 6092 / T-38 A/B ADS-B Out
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	0.000	4.193	8.390	0.000	8.390	0.000	-	-	-	-	12.583
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	0.000	4.193	8.390	0.000	8.390	0.000	-	-	-	-	12.583
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**0.000**	**4.193**	**8.390**	**0.000**	**8.390**	**0.000**	**-**	**-**	**-**	**-**	**12.583**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	1.424	-	-	-	-	-	-	-	-	1.424
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Government has a new requirement to comply with the Federal Aviation Administration mandate that all aircraft operating in Classes A, B, C, and certain Class E airspaces (above 18,000 feet and civil aviation traffic areas) beyond 1 January 2020 be equipped with Automatic Dependent Surveillance - Broadcast(ADS-B) compliant transponders. The 59 T-38A and AT-38B model aircraft operated by Air Combat Command and Air Force Global Strike Command do not currently have ADS-B capability and require a replacement transponder to meet the ADS-B mandate.

The T-38 Program Office has identified Government owned assets, the Raytheon APX-119 transponder, that provides the most supportable and lowest risk solution to meeting the Automatic Dependent Surveillance - Broadcast requirement time frame. To achieve integration of the APX-119 transponders into the T-38A/B aircraft, the Government must contract to modify the proprietary hardware interfaces to integrate a position source and make the necessary modifications to the transponder's proprietary firmware.

Integration will include developing and providing the source data for Air Force technical manuals, flight manuals, and aircraft drawings. The integration requirement provides for the "A" kit hardware development, procurement, and delivery, Time Compliance Technical Order development, and modification of a prototype aircraft. The "B" kit will consist of the modified Line Replaceable Unit and control box. There is a FY18 spare requirement in the amount of $1.424M. 12 APX-119 RTs, 12 Control Boxes and 12 personality modules.

The contract was awarded to The Raytheon Company 17 May 2017. System development and aircraft integration has started.

Milestone/Development Status

Contract awarded 17 May 2017. System development and aircraft integration has started.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 4	**P-1 Line Item Number / Title:** T03800 / T-38	**Modification Number / Title:** 6092 / T-38 A/B ADS-B Out
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: T-38	**Modification Type:** Reliability & Maintainability	**Related RDT&E PEs:** 0604233F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: T-38A/B ADS-B												
A Kits												
Recurring												
T-38A/B ADS-B:INSTALL KITS Group A (Active)	- / -	- / -	- / -	59 / 2.184	- / -	59 / 2.184	- / -	- / -	- / -	- / -	- / -	59 / 2.184
Subtotal: Recurring	- / -	- / -	- / -	- / 2.184	- / -	- / 2.184	- / -	- / -	- / -	- / -	- / -	- / 2.184
B Kits												
Recurring												
T-38A/B ADS-B:EQUIPMENT Group B (Active)	- / -	- / -	59 / 4.193	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	59 / 4.193
Subtotal: Recurring	- / -	- / -	- / 4.193	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.193
Subtotal: T-38A/B ADS-B	- / -	- / -	- / 4.193	- / 2.184	- / -	- / 2.184	- / -	- / -	- / -	- / -	- / -	- / 6.377
Subtotal: Procurement, All Modification Items	- / -	- / -	- / 4.193	- / 2.184	- / -	- / 2.184	- / -	- / -	- / -	- / -	- / -	- / 6.377
Support *(All Modification Items)*												
Mod of Spares	- / -	- / -	- / -	36 / 1.206	- / -	36 / 1.206	- / -	- / -	- / -	- / -	- / -	36 / 1.206
Subtotal: Support	- / -	- / -	- / -	36 / 1.206	- / -	36 / 1.206	- / -	- / -	- / -	- / -	- / -	36 / 1.206
Installation												
Modification Item 1 of 1: T-38A/B ADS-B	- / -	- / -	- / -	59 / 5.000	- / -	59 / 5.000	- / -	- / -	- / -	- / -	- / -	59 / 5.000
Subtotal: Installation	- / -	- / -	- / -	59 / 5.000	- / -	59 / 5.000	- / -	- / -	- / -	- / -	- / -	59 / 5.000
Total												
Total Cost (Procurement + Support + Installation)	**0.000**	**0.000**	**4.193**	**8.390**	**0.000**	**8.390**	**0.000**	**-**	**-**	**-**	**-**	**12.583**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 4	**P-1 Line Item Number / Title:** T03800 / T-38	**Modification Number / Title:** 6092 / T-38 A/B ADS-B Out
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 1 of 1: T-38A/B ADS-B

Manufacturer Information

Manufacturer Name: The Raytheon Company	Manufacturer Location: Aberdeen, MD
Administrative Leadtime *(in Months)*: 1	Production Leadtime *(in Months)*: 17

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Apr 2018					
Delivery Dates		Sep 2019					

Installation Information

Method of Implementation: Depot Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	59 / 5.000	- / -	59 / 5.000	- / -	- / -	- / -	- / -	- / -	59 / 5.000
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	59 / 5.000	- / -	59 / 5.000	- / -	- / -	- / -	- / -	- / -	59 / 5.000

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	59
Out	0	-	-	-	-	-	-	-	-	-	-	-	59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	59

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** 11U200 / U-2 Mods

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0305202F, 0305206F	Other Related Program Elements: 0305202F, 0604257F

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	22.095	36.074	36.406	48.774	7.900	56.674	120.886	110.770	129.467	82.016	0.000	594.388
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	22.095	36.074	36.406	48.774	7.900	56.674	120.886	110.770	129.467	82.016	0.000	594.388
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**22.095**	**36.074**	**36.406**	**48.774**	**7.900**	**56.674**	**120.886**	**110.770**	**129.467**	**82.016**	**0.000**	**594.388**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Central Intelligence Agency (CIA) established the Senior Year Program in 1955. The program has evolved significantly over the years to include the U-2 airframe, engines, sensors, cameras, recorders, data links, life support systems, test facilities and equipment. The U-2S model airframes were constructed in the late 1980s, with the last aircraft rolling off the assembly line in 1989. The U-2S provides global reconnaissance signals intelligence (SIGINT) and geospatial intelligence (GEOINT) 24 hours a day, seven days a week in support of national and DoD worldwide missions. The U-2 is currently deployed to forward operating locations (FOL) around the world. Modifications to the aircraft and payloads are required to ensure continued operational effectiveness in support of Combatant Commander Requirements and in accordance with previous NDAA guidance.

In the 2013 PB, the Air Force decided to retain the U-2 weapon system instead of retiring it. At that time sustainment efforts and capability upgrades to the platform and payloads were pursued to support National and Combatant Commander requirements.

In the 2015 PB, the Air Force decided to retire the U-2 in 2016. In accordance with 10 U.S.C. 2244a, the U-2 weapon system is identified as Equipment Scheduled For Retirement Or Disposal: Limitation On Expenditures For Modifications, stating that modification to any aircraft (i.e., a given tail number, weapon, or item of equipment that the SECAF plans to retire or otherwise dispose of within 5 years after the date on which the modification would be completed) are prohibited.

In the 2016 PB, the Air Force re-phased U-2 divestiture to begin in FY2019 and to complete no later than FY2020. In accordance with 10 U.S.C. 2244a, the Secretary of the Air Force may waive the prohibition on modifications if the Secretary determines that carrying out the modification is in the national security interest of the United States. Therefore, modifications required to address sustainme...

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** 11U200 / U-2 Mods

ID Code (A=Service Ready, B=Not Service Ready): B | **Program Elements for Code B Items:** 0305202F, 0305206F | **Other Related Program Elements:** 0305202F, 0604257F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	4496 / ASARS-2B Procurement for U-2 (Other)				- / -	- / -	- / -	- / -	- / -	- / -
P-3a	4494 / U-2 Mod (Other)		B		- / 22.095	- / 36.074	- / 36.406	- / 48.774	- / 7.900	- / 56.674
P-40	**Total Gross/Weapon System Cost**				**- / 22.095**	**- / 36.074**	**- / 36.406**	**- / 48.774**	**- / 7.900**	**- / 56.674**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	4496 / ASARS-2B Procurement for U-2 (Other)				- / 66.443	- / 48.204	- / 72.340	- / 28.108	- / 0.000	- / 215.095
P-3a	4494 / U-2 Mod (Other)		B		- / 54.443	- / 62.566	- / 57.127	- / 53.908	- / -	- / 379.293
P-40	**Total Gross/Weapon System Cost**				**- / 120.886**	**- / 110.770**	**- / 129.467**	**- / 82.016**	**- / 0.000**	**- / 594.388**

*** Although this is an Exhibit P-40a item, the actual exhibit is not included since all of the required information for this item is already being shown here.

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** 11U200 / U-2 Mods	**Modification Number / Title:** 4494 / U-2 Mod
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	22.095	36.074	36.406	48.774	7.900	56.674	54.443	62.566	57.127	53.908	-	379.293
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	22.095	36.074	36.406	48.774	7.900	56.674	54.443	62.566	57.127	53.908	-	379.293
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**22.095**	**36.074**	**36.406**	**48.774**	**7.900**	**56.674**	**54.443**	**62.566**	**57.127**	**53.908**	**-**	**379.293**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The U-2 Program will continue to address reliability, maintainability, sustainability, and safety issues and support U-2 integration of payloads and capabilities. Aircraft and sensor sustainment or enhancements include activities such as, but not limited to the following current programs:

- Advanced Synthetic Aperture Radar System (ASARS) procurement, sustainment, and enhancements to support collection capability and capacity requirements to meet global ISR requirements.
- Multi-Spectral Sensor sustainment and enhancements to optics and focal planes in support of operational requirements.
- Electronic Warfare System (EWS) sustainment and enhancements to mitigate DMS and to defend against current and emerging threat systems.
- Data Link sustainment and enhancement: Development, integration and test of beyond line of sight (BLOS) and tactical data links (L-16, IFDL, MADL, etc.) in support of operational requirements and to mitigate DMSMS.
- Modification programs in support safety of flight, DMSMS concerns, support of operational capability and capacity requirements to include: airframe sustainment, Egress System Sustainment and Suitability Effort, helmet and Full Pressure Suit technical refresh, avionics, mission planning, navigation system and stellar tracker initiatives, advanced and agile systems/payloads, Open Mission Systems and Unmanned Aerospace Systems Command and Control Standard Initiative (OMS/UCI) standards compliance, payload sensors, and associated ground support equipment.
- Signals Intelligence (SIGINT) system sustainment, test and integration to meet operational requirements.

Milestone/Development Status

Various efforts will continue to develop technologies and capabilities supporting U-2 operations, and will be fielded onto the U-2 platforms, on a schedule dependent on system requirements.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** 11U200 / U-2 Mods	**Modification Number / Title:** 4494 / U-2 Mod
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: U-2	**Modification Type:** Other	**Related RDT&E PEs:** 0305202F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0305202F	- / 34.471	- / 37.217	- / 34.486	- / 48.882	- / -	- / 48.882	- / 38.682	- / 16.994	- / 17.120	- / 19.849	- / -	- / 247.701
Procurement												
Modification Item 1 of 1: U-2 Update Block 20-1												
A Kits												
Recurring												
U-2 Update Block 20-1:INSTALL KITS Group A (Active)	2 / 19.395	2 / 24.047	8 / 24.028	9 / 32.513	- / 0.000	9 / 32.513	9 / 36.292	22 / 41.710	12 / 38.081	12 / 37.736	- / -	76 / 253.802
Subtotal: Recurring	*- / 19.395*	*- / 24.047*	*- / 24.028*	*- / 32.513*	*- / 0.000*	*- / 32.513*	*- / 36.292*	*- / 41.710*	*- / 38.081*	*- / 37.736*	*- / -*	*- / 253.802*
Subtotal: U-2 Update Block 20-1	*- / 19.395*	*- / 24.047*	*- / 24.028*	*- / 32.513*	*- / 0.000*	*- / 32.513*	*- / 36.292*	*- / 41.710*	*- / 38.081*	*- / 37.736*	*- / -*	*- / 253.802*
Subtotal: Procurement, All Modification Items	*- / 19.395*	*- / 24.047*	*- / 24.028*	*- / 32.513*	*- / 0.000*	*- / 32.513*	*- / 36.292*	*- / 41.710*	*- / 38.081*	*- / 37.736*	*- / -*	*- / 253.802*
Installation												
Modification Item 1 of 1: U-2 Update Block 20-1	2 / 2.700	2 / 12.027	8 / 12.378	9 / 16.261	0 / 7.900	9 / 24.161	9 / 18.151	22 / 20.856	12 / 19.046	12 / 16.172	- / -	76 / 125.491
Subtotal: Installation	*2 / 2.700*	*2 / 12.027*	*8 / 12.378*	*9 / 16.261*	*- / 7.900*	*9 / 24.161*	*9 / 18.151*	*22 / 20.856*	*12 / 19.046*	*12 / 16.172*	*- / -*	*76 / 125.491*
Total												
Total Cost (Procurement + Support + Installation)	**22.095**	**36.074**	**36.406**	**48.774**	**7.900**	**56.674**	**54.443**	**62.566**	**57.127**	**53.908**	**-**	**379.293**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** 11U200 / U-2 Mods	**Modification Number / Title:** 4494 / U-2 Mod
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 1: U-2 Update Block 20-1

Manufacturer Information

Manufacturer Name: Details Classified	Manufacturer Location: Details Classified
Administrative Leadtime *(in Months)*: 3	Production Leadtime *(in Months)*: 6

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Jan 2017	Jan 2018	Jan 2019	Jan 2020	Jan 2021	Jan 2022	Jan 2023
Delivery Dates	Jul 2017	Jul 2018	Jul 2019	Jul 2020	Jul 2021	Jul 2022	Jul 2023

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	2 / 2.700	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 2.700
FY 2017	- / -	2 / 12.027	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 12.027
FY 2018	- / -	- / -	8 / 12.378	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 12.378
FY 2019	- / -	- / -	- / -	9 / 16.261	0 / 7.900	9 / 24.161	- / -	- / -	- / -	- / -	- / -	9 / 24.161
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	9 / 18.151	- / -	- / -	- / -	- / -	9 / 18.151
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	22 / 20.856	- / -	- / -	- / -	22 / 20.856
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 19.046	- / -	- / -	12 / 19.046
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 16.172	- / -	12 / 16.172
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	2 / 2.700	2 / 12.027	8 / 12.378	9 / 16.261	0 / 7.900	9 / 24.161	9 / 18.151	22 / 20.856	12 / 19.046	12 / 16.172	- / -	76 / 125.491

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	2	-	2	-	-	2	2	2	2	3	2	2	2	3	2	2	2	8	8	4	2	4	4	2	2	3	3	3	3	0	76
Out	2	-	2	-	-	2	2	2	2	3	2	2	2	3	2	2	2	8	8	4	2	4	4	2	2	3	3	3	3	0	76

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** C01000 / KC-10A (ATCA)

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0401219F, 0401897F	Other Related Program Elements: 0401219F

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	44.751	4.570	4.243	11.104	0.000	11.104	5.108	3.959	3.443	3.505	-	80.683
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	44.751	4.570	4.243	11.104	0.000	11.104	5.108	3.959	3.443	3.505	-	80.683
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**44.751**	**4.570**	**4.243**	**11.104**	**0.000**	**11.104**	**5.108**	**3.959**	**3.443**	**3.505**	**-**	**80.683**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This line item funds modifications for the fleet of 59 KC-10 aircraft. KC-10 has a divestiture strategy that is to be completed in 2024. On average, the aircraft are 33 years old with 22 service years remaining. The three engine KC-10 serves a dual role by providing both air refueling and strategic airlift support. The aircraft provides air refueling by using both the boom and the drogue methods and can carry up to 27 standard 463-L pallets. The primary modifications are Mode-5 Identification Friend or Foe (IFF) Surveillance in combination with an FAA mandated Automatic Dependent Surveillance-Broadcast (ADS-B) upgrade, and Service Bulletins (SBs) that address obsolescence issues, provide worldwide civil airspace accessibility, and incorporate aging aircraft and FAA certification requirements.

Funding may be used to address diminishing manufacturing sources (DMS) issues.

Funding for this exhibit is contained in PE 0401219F and PE 0401897F

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** C01000 / KC-10A (ATCA)

ID Code (A=Service Ready, B=Not Service Ready): B | **Program Elements for Code B Items:** 0401219F, 0401897F | **Other Related Program Elements:** 0401219F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	7732 / Simulator Lateral Motion Maneuver Enhancement (Other)				- / -	- / -	- / 0.736	- / -	- / -	- / -
P-40a***	99999A / LOW COST SAFETY MODIFICATIONS (Capability Improvement)				- / 0.015	- / 0.001	- / 0.001	- / 0.001	- / -	- / 0.001
P-40a***	99999S / SERVICE BULLETINS (Service Life Extension)				- / 37.466	- / 4.568	- / 1.506	- / 0.098	- / -	- / 0.098
P-40a***	99999X / Low Cost Modifications (Capability Improvement)				- / 7.270	- / 0.001	- / 2.000	- / 0.001	- / -	- / 0.001
P-3a	7733 / KC-10 Mode 5 (Capability Improvement)		B		- / 0.000	- / 0.000	- / 0.000	- / 11.004	- / 0.000	- / 11.004
P-40	**Total Gross/Weapon System Cost**				**- / 44.751**	**- / 4.570**	**- / 4.243**	**- / 11.104**	**- / 0.000**	**- / 11.104**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	7732 / Simulator Lateral Motion Maneuver Enhancement (Other)				- / -	- / -	- / -	- / -	- / -	- / 0.736
P-40a***	99999A / LOW COST SAFETY MODIFICATIONS (Capability Improvement)				- / 0.001	- / 0.001	- / 0.001	- / 0.001	- / -	- / 0.022
P-40a***	99999S / SERVICE BULLETINS (Service Life Extension)				- / 5.106	- / 3.957	- / 3.441	- / 3.503	- / -	- / 59.645
P-40a***	99999X / Low Cost Modifications (Capability Improvement)				- / 0.001	- / 0.001	- / 0.001	- / 0.001	- / -	- / 9.276
P-3a	7733 / KC-10 Mode 5 (Capability Improvement)		B		- / 0.000	- / -	- / -	- / -	- / -	- / 11.004
P-40	**Total Gross/Weapon System Cost**				**- / 5.108**	**- / 3.959**	**- / 3.443**	**- / 3.505**	**- / -**	**- / 80.683**

*** Although this is an Exhibit P-40a item, the actual exhibit is not included since all of the required information for this item is already being shown here.

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C01000 / KC-10A (ATCA)	**Modification Number / Title:** 7733 / KC-10 Mode 5
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	0.000	0.000	11.004	0.000	11.004	0.000	-	-	-	-	11.004
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	0.000	0.000	11.004	0.000	11.004	0.000	-	-	-	-	11.004
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**0.000**	**0.000**	**11.004**	**0.000**	**11.004**	**0.000**	**-**	**-**	**-**	**-**	**11.004**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	0.600	-	-	-	-	0.600
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This program, P-3A Mod 7733, KC-10 Mode 5, is a new start.
The KC-10 is an aerial refueling asset built on the commercial DC-10 airframe. This aircraft creates an air bridge enabling rapid global mobility and global strike missions. There are 59 KC-10A aircraft in the USAF tanker fleet.

This program funds a total of 45 aircraft. One (1) prototype install during RDT&E and 44 production installs. 23 installs will be completed by the FAA mandate (1 Jan 20) and 21 additional installs will be completed after the FAA mandate per the AMC KC-10 divestiture plan. The program will purchase 45 kits prior to the FAA mandate to meet the planned installation schedule. The program has the ability to adapt to any further changes to the AMC divestiture plan up to and including installs on all 59 aircraft. The program is working schedule changes to move the additional 21 installs to left with a goal of meeting the mandate on as many aircraft as possible.

The Mode 5 program is an FAA mandated upgrade program to the USAF Identification Friend or Foe (IFF) system, the primary means of command and control aircraft identification. Mode 5 increases anti-spoofing capabilities and lowers the possibility of aircraft/aircrew loss due to misidentification of friendly aircraft. The KC-10 modification program includes a Mode 5 capable APX-119 transponder, a new KIV-77 crypto appliqué and integration/control through the CDU-7000F flight management computer.

An FAA mandated Automatic Dependent Surveillance-Broadcast (ADS-B) upgrade to the KC-10 is also included as part of Mode 5 to meet DO-260B requirements set by the FAA. Both Identification Friend or Foe (IFF) Mode 5 and Automatic Dependent Surveillance - Broadcast (ADS-B) Out are mandated programs (JROCM 047-07 and FAA Advisory Circular 20-165A) that have a required incorporation NLT 1 Jan 2020 (ADS-B) and 1 July 2020 (Mode 5). Both actions are accomplished by modification of the APX-119 Line Replaceable Unit (LRU) and can easily be accomplished at the same time and at a significant cost savings to the USAF.

Mode 5 is in Budget Activity 5, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year. The program includes a Technology Maturation Risk Reduction Study (TMRR), Formal EMD, Procurement and Installation on assigned KC-10 aircraft.

Milestone/Development Status

TMRR contract awarded to Rockwell Collins Inc. on 22 Mar 2017

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C01000 / KC-10A (ATCA)	**Modification Number / Title:** 7733 / KC-10 Mode 5
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Engineering and Manufacturing Development awarded 16 Nov 17 and includes system design, software development, system integration, laboratory testing, prototype installation, ground and flight testing, AIMS/ FAA certification, kit production, ATD design/implementation and training material development.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	P-1 Line Item Number / Title: C01000 / KC-10A (ATCA)	Modification Number / Title: 7733 / KC-10 Mode 5
ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:	
Models of Systems Affected: KC-10	Modification Type: Capability Improvement	Related RDT&E PEs: 0401219F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0401219F	- / 1.597	- / -	1 / 7.933	- / 6.569	- / -	- / 6.569	- / 0.020	- / -	- / -	- / -	- / -	1 / 16.119
Procurement												
Modification Item 1 of 1: Mode 5												
A Kits												
Recurring												
Mode 5:INSTALL KITS Group A (Active)	- / -	- / -	- / -	44 / 0.880	- / -	44 / 0.880	- / 0.000	- / -	- / -	- / -	- / -	44 / 0.880
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / 0.880*	*- / -*	*- / 0.880*	*- / 0.000*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.880*
B Kits												
Recurring												
Mode 5:EQUIPMENT Group B (Active)	- / -	- / -	- / -	44 / 5.500	- / -	44 / 5.500	0 / 0.000	- / -	- / -	- / -	- / -	44 / 5.500
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / 5.500*	*- / -*	*- / 5.500*	*- / 0.000*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 5.500*
Subtotal: Mode 5	*- / -*	*- / -*	*- / -*	*- / 6.380*	*- / -*	*- / 6.380*	*- / 0.000*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 6.380*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / -*	*- / 6.380*	*- / -*	*- / 6.380*	*- / 0.000*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 6.380*
Support *(All Modification Items)*												
PMA - Other Gov't Costs	- / -	- / -	- / -	1 / 1.409	- / -	1 / 1.409	- / 0.000	- / -	- / -	- / -	- / -	1 / 1.409
Subtotal: Support	*- / -*	*- / -*	*- / -*	*1 / 1.409*	*- / -*	*1 / 1.409*	*- / 0.000*	*- / -*	*- / -*	*- / -*	*- / -*	*1 / 1.409*
Installation												
Modification Item 1 of 1: Mode 5	- / -	- / -	- / -	44 / 3.215	- / -	44 / 3.215	- / -	- / -	- / -	- / -	- / -	44 / 3.215
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*44 / 3.215*	*- / -*	*44 / 3.215*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*44 / 3.215*
Total												
Total Cost (Procurement + Support + Installation)	**0.000**	**0.000**	**0.000**	**11.004**	**0.000**	**11.004**	**0.000**	**-**	**-**	**-**	**-**	**11.004**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C01000 / KC-10A (ATCA)	**Modification Number / Title:** 7733 / KC-10 Mode 5

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 1: Mode 5

Manufacturer Information

Manufacturer Name: Rockwell Collins Inc

Manufacturer Location: Cedar Rapids, IA

Administrative Leadtime *(in Months)*: 1

Production Leadtime *(in Months)*: 10

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates			Nov 2018				
Delivery Dates			Sep 2019				

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	44 / 3.215	- / -	44 / 3.215	- / -	- / -	- / -	- / -	- / -	44 / 3.215
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	44 / 3.215	- / -	44 / 3.215	- / -	- / -	- / -	- / -	- / -	44 / 3.215

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	44
Out	0	-	-	-	-	-	-	-	-	-	-	-	44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	44

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** C01200 / C-12

ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0401314F	**Other Related Program Elements:** 0401314F

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	4.916	2.298	5.846	4.900	0.000	4.900	3.021	2.131	2.172	2.211	-	27.495
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	4.916	2.298	5.846	4.900	0.000	4.900	3.021	2.131	2.172	2.211	-	27.495
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**4.916**	**2.298**	**5.846**	**4.900**	**0.000**	**4.900**	**3.021**	**2.131**	**2.172**	**2.211**	**-**	**27.495**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This line item funds low-cost modifications and service bulletins for twenty-eight (28) C-12 C, D, F, and J aircraft, commercial equivalent to the Beech Craft Super King Air. The C-12 is a twin-turboprop, support-airlift aircraft used to transport cargo and passengers over medium distances. The design service life is 30,000 hours with 22,000 hours remaining on the D (6), 19,000 remaining on the C (16), 17,000 on the J (4) and 10,000 on the F (2). Service bulletins and low cost modifications are necessary for continuing Federal Aviation Administration certification while improving flight safety, reliability, and maintainability. Support funding for emerging modification requirements to support PMA, A&AS, equipment and other as required.

Funding may be used to address Diminishing Manufacturing Sources (DMS) issues.

Funding for this exhibit contained in PE 0401314F.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** C02500 / VC-25A Mod

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0401314F	Other Related Program Elements: 0401314F

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	87.066	102.452	52.107	36.938	0.000	36.938	48.624	0.985	1.006	1.023	-	330.201
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	87.066	102.452	52.107	36.938	0.000	36.938	48.624	0.985	1.006	1.023	-	330.201
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**87.066**	**102.452**	**52.107**	**36.938**	**0.000**	**36.938**	**48.624**	**0.985**	**1.006**	**1.023**	**-**	**330.201**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This line item funds modifications for (2) VC-25A presidential support aircraft, a commercial derivative of the commercial Boeing 747-200. The aircraft are commonly referred to as "Air Force One." The aircraft were purchased in FY87, modified by Boeing to meet presidential requirements, and delivered in FY91. The projected service life is 30 years. These on-going modifications are to extend that service life until the VC-25B Presidential Aircraft Recapitalization aircraft are fielded in the 2024 timeframe. Service bulletins and low cost modifications are necessary for continuing Federal Aviation Administration airworthiness certification while improving flight safety, reliability, and maintainability. Support funding for emerging modification requirements to support PMA, A&AS, equipment and other as required.

VC-25 Block Upgrades ensures aircraft viability until the Presidential Aircraft Recapitalization program reaches full operational capability by installing protected satellite communications, upgraded chillers, Nitrogen Generation System, weather radar, digital/voice data systems, and network capabilities.

Funding may be used to address Diminishing Manufacturing Sources (DMS) issues.

Funding for this exhibit contained in PE 0401314F

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	**Date:** February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** C02500 / VC-25A Mod

ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0401314F	**Other Related Program Elements:** 0401314F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-40a***	99999S / SERVICE BULLETINS (Capability Improvement)				- / 0.766	- / 0.236	- / 0.893	- / 0.567	- / -	- / 0.567
P-40a***	99999X / Low Cost Modifications (Capability Improvement)				- / 2.199	- / 0.100	- / 0.100	- / 0.100	- / -	- / 0.100
P-3a	9715 / VC-25 Block Upgrade (Capability Improvement)		B		- / 84.101	- / 102.116	- / 51.114	- / 36.271	- / 0.000	- / 36.271
P-40	**Total Gross/Weapon System Cost**				**- / 87.066**	**- / 102.452**	**- / 52.107**	**- / 36.938**	**- / 0.000**	**- / 36.938**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-40a***	99999S / SERVICE BULLETINS (Capability Improvement)				- / 0.508	- / 0.885	- / 0.906	- / 0.923	- / -	- / 5.684
P-40a***	99999X / Low Cost Modifications (Capability Improvement)				- / 0.100	- / 0.100	- / 0.100	- / 0.100	- / -	- / 2.899
P-3a	9715 / VC-25 Block Upgrade (Capability Improvement)		B		- / 48.016	- / 0.000	- / 0.000	- / 0.000	- / -	- / 321.618
P-40	**Total Gross/Weapon System Cost**				**- / 48.624**	**- / 0.985**	**- / 1.006**	**- / 1.023**	**- / -**	**- / 330.201**

*** Although this is an Exhibit P-40a item, the actual exhibit is not included since all of the required information for this item is already being shown here.

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C02500 / VC-25A Mod	**Modification Number / Title:** 9715 / VC-25 Block Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	84.101	102.116	51.114	36.271	0.000	36.271	48.016	0.000	0.000	0.000	-	321.618
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	84.101	102.116	51.114	36.271	0.000	36.271	48.016	0.000	0.000	0.000	-	321.618
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**84.101**	**102.116**	**51.114**	**36.271**	**0.000**	**36.271**	**48.016**	**0.000**	**0.000**	**0.000**	**-**	**321.618**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This modification installs a number of viability upgrades on Air Force VC-25A aircraft. The block modification includes: Protected SATCOM, Chillers, Nitrogen Generation System, weather radar, digital voice/data systems, and network capabilities (e.g., Commercial Internet, Multi-Role Tactical Common Data Link, Mobile User Objective System) to sucessfully complete the President of the United States airlift mission until the Presidential Aircraft Recapitalization program reaches full operational capability. Installation of the block upgrade will be aligned with aircraft heavy maintenance depot visits beginning in FY17.

Milestone/Development Status

Commercial-off-the-Shelf item with non-recurring engineering for integration.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C02500 / VC-25A Mod	**Modification Number / Title:** 9715 / VC-25 Block Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: VC-25A	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0401314F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Block Upgrade												
A Kits												
Recurring												
Block Upgrade:INSTALL KITS Group A (Active)	1 / 35.401	1 / 22.400	- / -	2 / 21.000	- / -	2 / 21.000	- / -	- / -	- / -	- / -	- / -	4 / 78.801
Subtotal: Recurring	*- / 35.401*	*- / 22.400*	*- / -*	*- / 21.000*	*- / -*	*- / 21.000*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 78.801*
Subtotal: Block Upgrade	*- / 35.401*	*- / 22.400*	*- / -*	*- / 21.000*	*- / -*	*- / 21.000*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 78.801*
Subtotal: Procurement, All Modification Items	*- / 35.401*	*- / 22.400*	*- / -*	*- / 21.000*	*- / -*	*- / 21.000*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 78.801*
Support *(All Modification Items)*												
GROUP A: TOTAL NONRECURRING	- / 43.400	- / 31.034	- / 41.352	- / -	- / -	- / -	- / 41.900	- / -	- / -	- / -	- / -	- / 157.686
OTHER GOVT	- / 1.400	- / 16.500	- / 6.262	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 24.162
PMA - Other Gov't Costs	- / 3.900	- / 3.182	- / 3.500	- / 3.271	- / -	- / 3.271	- / 6.116	- / -	- / -	- / -	- / -	- / 19.969
Subtotal: Support	*- / 48.700*	*- / 50.716*	*- / 51.114*	*- / 3.271*	*- / -*	*- / 3.271*	*- / 48.016*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 201.817*
Installation												
Modification Item 1 of 1: Block Upgrade	- / -	1 / 29.000	- / -	1 / 12.000	- / -	1 / 12.000	- / -	- / -	- / -	- / -	- / -	2 / 41.000
Subtotal: Installation	*- / -*	*1 / 29.000*	*- / -*	*1 / 12.000*	*- / -*	*1 / 12.000*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*2 / 41.000*
Total												
Total Cost (Procurement + Support + Installation)	**84.101**	**102.116**	**51.114**	**36.271**	**0.000**	**36.271**	**48.016**	**0.000**	**0.000**	**0.000**	**-**	**321.618**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C02500 / VC-25A Mod	**Modification Number / Title:** 9715 / VC-25 Block Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 1: Block Upgrade

Manufacturer Information

Manufacturer Name: Boeing	Manufacturer Location: San Antonio, TX
Administrative Leadtime *(in Months)*: 8	Production Leadtime *(in Months)*: 15

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Jun 2018		Jun 2019				
Delivery Dates	Sep 2019		Sep 2020				

Installation Information

Method of Implementation: Contractor Facility

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	1 / 29.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 29.000
FY 2017	- / -	- / -	- / -	1 / 12.000	- / -	1 / 12.000	- / -	- / -	- / -	- / -	- / -	1 / 12.000
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	1 / 29.000	- / -	1 / 12.000	- / -	1 / 12.000	- / -	- / -	- / -	- / -	- / -	2 / 41.000

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	0	2
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	0	2

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** C04000 / C-40

ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0401314F	**Other Related Program Elements:** 0401314F

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	60.999	13.884	31.119	0.251	0.000	0.251	3.835	0.261	0.267	0.272	-	110.888
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	60.999	13.884	31.119	0.251	0.000	0.251	3.835	0.261	0.267	0.272	-	110.888
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**60.999**	**13.884**	**31.119**	**0.251**	**0.000**	**0.251**	**3.835**	**0.261**	**0.267**	**0.272**	**-**	**110.888**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This line item funds all modifications for eleven (11) C-40B and C-40C aircraft, commercial-derivative Boeing 737 business jets. The C-40B/C is a twin-engine, turbo fan aircraft used to airlift DoD officials and government personnel worldwide. The design service life is 30 years with an average of 22 years remaining. Support funding for emerging modification requirements to support PMA, A&AS, equipment and other as required.

Service bulletins and low cost modifications are necessary for continuing Federal Aviation Administration (FAA) certification while improving flight safety, reliability, and maintainability.

Funding may be used to address Diminishing Manufacturing Sources (DMS) issues.

Funding for this exhibit contained in PE 0401314F.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** C13000 / C-130

ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0207224F, 0401115F, 0401897F, 0404011F	**Other Related Program Elements:** 0207224F, 0401115F

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	953.245	230.168	66.310	22.094	0.000	22.094	47.446	81.898	204.291	270.343	1,989.122	3,864.917
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	953.245	230.168	66.310	22.094	0.000	22.094	47.446	81.898	204.291	270.343	1,989.122	3,864.917
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**953.245**	**230.168**	**66.310**	**22.094**	**0.000**	**22.094**	**47.446**	**81.898**	**204.291**	**270.343**	**1,989.122**	**3,864.917**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This line item funds modifications to the legacy C-130 and Special Mission C-130 aircraft. The four engine legacy C-130 provides theater airlift and carries either 92 troops, 64 paratroopers, 74 litter patients, or 6 standard 463-L pallets.

The modifications budgeted in FY19 are the Systems/Structure (Center Wing Replacement) mod, the Mode 5 Identification Friend or Foe (IFF) mod, the C-130H Avionics Modernization Program (AMP) Increment 1 mod, the AFSOC C-130 Mods and low cost/safety/misc sims mods.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Funding may be used to address Diminishing Manufacturing Sources (DMS) issues.

The FY19 funding request for C-130H Avionics Modernization Program (AMP) Increment 1 was reduced by $42.950M to account for the availability of prior year execution balances. Also, includes a transfer in $.897M from O&M to correctly align funding.

Funding for this exhibit is contained in PEs 0401115F, 0401897F, and 0404011F.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	39.180	50.375	12.716	-	12.716	33.332	30.984	58.476	60.583
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	183.988	8.850	4.643	-	4.643	7.480	36.368	106.259	161.192

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** C13000 / C-130	
ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0207224F, 0401115F, 0401897F, 0404011F	**Other Related Program Elements:** 0207224F, 0401115F
Line Item MDAP/MAIS Code: N/A		

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AFR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	7.000	7.085	4.735	-	4.735	6.634	14.546	39.556	48.568
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**230.168**	**66.310**	**22.094**	**-**	**22.094**	**47.446**	**81.898**	**204.291**	**270.343**

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** C13000 / C-130

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0207224F, 0401115F, 0401897F, 0404011F	Other Related Program Elements: 0207224F, 0401115F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	3773 / C-130 8-Bladed Propeller Upgrade (Capability Improvement)				- / 66.000	- / 16.000	- / -	- / -	- / -	- / -
P-40a***	8221 / C-130 ALR-69A Radar Warning Receiver (RWR) (Capability Improvement)				- / -	- / 36.080	- / -	- / -	- / -	- / -
P-40a***	8518 / C-130H Avionics Modernization Program (AMP) Increment 2 (Capability Improvement)				- / -	- / -	- / -	- / 0.000	- / -	- / 0.000
P-40a***	8578 / C-130 SYSTEMS/STRUCTURE (PHASE II MODERNIZATION) (Service Life Extension)				- / 661.731	- / 5.140	- / 8.160	- / 3.546	- / -	- / 3.546
P-40a***	9139 / MOD V IFF (Capability Improvement)				- / 39.223	- / -	- / 1.550	- / 1.050	- / -	- / 1.050
P-40a***	9149 / C-130 Aux Hyd Pump (Capability Improvement)				- / 14.639	- / 0.328	- / 0.522	- / -	- / -	- / -
P-40a***	92308 / T-56 3.5 Engine Mod (Capability Improvement)				- / 71.500	- / 41.500	- / -	- / -	- / -	- / -
P-40a***	92311 / Electronic Propeller Control System (EPCS) (Capability Improvement)				- / 13.500	- / 126.000	- / -	- / -	- / -	- / -
P-40a***	92312 / In-Flight Propeller Balancing System (IPBS) (Reliability & Maintainability)				- / 1.500	- / 1.500	- / -	- / -	- / -	- / -
P-40a***	92315 / C-130H Simulator (Other)				- / -	- / -	- / 25.000	- / -	- / -	- / -
P-40a***	99999A / LOW COST SAFETY MODIFICATIONS (Safety)				- / 2.889	- / 0.500	- / 1.499	- / -	- / -	- / -
P-40a***	99999M / MISC SIMULATOR UPDATES (Capability Improvement)				- / 0.703	- / 0.020	- / 0.606	- / -	- / -	- / -
P-40a***	99999S / SERVICE BULLETINS (Capability Improvement)				- / 0.000	- / 1.101	- / 1.024	- / -	- / -	- / -
P-40a***	99999X / Low Cost Modifications (Capability Improvement)				- / 11.560	- / 1.999	- / 1.449	- / 1.926	- / -	- / 1.926
P-3a	92302 / C-130H Avionics Modernization Program (AMP) Increment 1 (Capability Improvement)		B		- / 70.000	- / 0.000	- / 15.500	- / 7.637	- / 0.000	- / 7.637
P-3a	92316 / AFSOC C-130 Mods (Capability Improvement)		B		- / 0.000	- / 0.000	- / 11.000	- / 7.935	- / 0.000	- / 7.935
P-40	**Total Gross/Weapon System Cost**				**- / 953.245**	**- / 230.168**	**- / 66.310**	**- / 22.094**	**- / 0.000**	**- / 22.094**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	3773 / C-130 8-Bladed Propeller Upgrade (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / 82.000
P-40a***	8221 / C-130 ALR-69A Radar Warning Receiver (RWR) (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / 36.080
P-40a***	8518 / C-130H Avionics Modernization Program (AMP) Increment 2 (Capability Improvement)				- / 0.000	- / 61.297	- / 164.524	- / 229.971	- / 1,984.604	- / 2,440.396
P-40a***	8578 / C-130 SYSTEMS/STRUCTURE (PHASE II MODERNIZATION) (Service Life Extension)				- / 14.512	- / 14.773	- / 15.068	- / 15.343	- / 4.518	- / 742.791
P-40a***	9139 / MOD V IFF (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / 41.823
P-40a***	9149 / C-130 Aux Hyd Pump (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / 15.489

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft

P-1 Line Item Number / Title:
C13000 / C-130

ID Code (A=Service Ready, B=Not Service Ready): B

Program Elements for Code B Items: 0207224F, 0401115F, 0401897F, 0404011F

Other Related Program Elements: 0207224F, 0401115F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-40a***	92308 / T-56 3.5 Engine Mod (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / 113.000
P-40a***	92311 / Electronic Propeller Control System (EPCS) (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / 139.500
P-40a***	92312 / In-Flight Propeller Balancing System (IPBS) (Reliability & Maintainability)				- / -	- / -	- / -	- / -	- / -	- / 3.000
P-40a***	92315 / C-130H Simulator (Other)				- / 15.675	- / -	- / 22.720	- / 23.133	- / -	- / 86.528
P-40a***	99999A / LOW COST SAFETY MODIFICATIONS (Safety)				- / -	- / -	- / -	- / -	- / -	- / 4.888
P-40a***	99999M / MISC SIMULATOR UPDATES (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / 1.329
P-40a***	99999S / SERVICE BULLETINS (Capability Improvement)				- / 0.500	- / -	- / -	- / -	- / -	- / 2.625
P-40a***	99999X / Low Cost Modifications (Capability Improvement)				- / 1.484	- / 1.982	- / 1.979	- / 1.896	- / -	- / 24.275
P-3a	92302 / C-130H Avionics Modernization Program (AMP) Increment 1 (Capability Improvement)		B		- / 7.338	- / 3.846	- / 0.000	- / -	- / -	- / 104.321
P-3a	92316 / AFSOC C-130 Mods (Capability Improvement)		B		- / 7.937	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 26.872
P-40	**Total Gross/Weapon System Cost**				**- / 47.446**	**- / 81.898**	**- / 204.291**	**- / 270.343**	**- / 1,989.122**	**- / 3,864.917**

*** Although this is an Exhibit P-40a item, the actual exhibit is not included since all of the required information for this item is already being shown here.

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C13000 / C-130	**Modification Number / Title:** 92302 / C-130H Avionics Modernization Program (AMP) Increment 1
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	70.000	0.000	15.500	7.637	0.000	7.637	7.338	3.846	0.000	-	-	104.321
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	70.000	0.000	15.500	7.637	0.000	7.637	7.338	3.846	0.000	-	-	104.321
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**70.000**	**0.000**	**15.500**	**7.637**	**0.000**	**7.637**	**7.338**	**3.846**	**0.000**	**-**	**-**	**104.321**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The C-130H Avionics Modernization Program (AMP) Increment 1 program will modify a minimum of 176 C-130H (166 C-130H & 10 LC-130H) aircraft with Automatic Dependent Surveillance-Broadcast (ADS-B) Out, 8.33 kHz radios, updated Cockpit Voice Recorder/Digital Flight Data Recorder (CVR/DFDR), and Enhanced Mode S. C-130H AMP Increment 1 also provides Type 1 training and modifies the C-130H aircrew and maintenance training systems and courseware including MODE 5 Identification Friend or Foe (IFF). Identified obsolescence and Diminishing Manufacturing Source (DMS) issues will be resolved, the DMS effort will include removal of end-of-life software/hardware within simulator systems and move to a modular, common open system architecture that is sustainable and cyber-resilient. This modification will also implement requirements and standards defined under the Simulator Common Architecture Requirements and Standards (SCARS) initiative. The Capability Development Document (CDD) was approved 8 Aug 14.

The 176 C-130Hs are comprised of 131 Air National Guard and 45 Air Force Reserve aircraft.

C-130H AMP Increment 1 acquisition strategy addresses the Federal Aviation Administration/International Civil Aviation Organization (FAA/ICAO) Communication/ Navigation/Surveillance & Air Traffic Management (CNS/ATM) required upgrades in the most efficient manner that will meet FAA's January 2020 and ICAO's June 2020 Airspace Compliance mandates. Current efforts are primarily involved with execution of the Engineering and Manufacturing Development (EMD) phase for ADS-B Out. The ADS-B Out EMD contract awarded in 2nd quarter FY17 following a competitive source selection.

The Engineering and Manufacturing Development (EMD) phase will have 4 prototype aircraft to accomplish the ADS-B Out effort. The prototype aircraft will be representative of variations in the C-130H mission designs. The remaining aircraft will be modified in the production phase.

Note, the Traffic Alert and Collision Avoidance System (TCAS II) is listed in the C-130H AMP Capability Development Document (CDD) as a requirement since it's required for flight operations in airspace controlled by the Federal Aviation Administration (FAA), and airspace controlled by foreign countries; however, the legacy C-130H fleet already has TCAS II 7.0 installed and will be maintained through the AMP Increment 1 upgrade. Also, MODE 5 IFF is listed in the CDD as a requirement but is funded in mod number 9139.

Other government costs include production line spares and technical support.

Milestone/Development Status

Milestone B approved Q2 FY17. Preliminary Design Review completed Q3 FY17. Critical Design Review completed Q4 FY17.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C13000 / C-130	**Modification Number / Title:** 92302 / C-130H Avionics Modernization Program (AMP) Increment 1
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.000	8.741	1.750	-	1.750	5.098	3.846	0.000	-
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	5.007	4.533	-	4.533	1.543	-	-	-
AFR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	1.752	1.354	-	1.354	0.697	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**0.000**	**15.500**	**7.637**	**0.000**	**7.637**	**7.338**	**3.846**	**0.000**	**-**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C13000 / C-130	**Modification Number / Title:** 92302 / C-130H Avionics Modernization Program (AMP) Increment 1
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: C-130H	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0401115F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0401115F	- / 33.962	- / 8.421	4 / 1.965	- / 5.864	- / -	- / 5.864	- / 0.015	- / 0.000	- / -	- / -	- / -	4 / 50.227
Procurement												
Modification Item 1 of 1: C-130H												
A Kits												
Recurring												
C-130H:INSTALL KITS Group A (Guard)	- / -	- / -	120 / 1.252	7 / 0.075	- / -	7 / 0.075	- / -	- / -	- / -	- / -	- / -	127 / 1.327
C-130H:INSTALL KITS Group A (Reserve)	- / -	- / -	42 / 0.438	3 / 0.032	- / -	3 / 0.032	- / -	- / -	- / -	- / -	- / -	45 / 0.470
Subtotal: Recurring	*- / -*	*- / -*	*- / 1.690*	*- / 0.107*	*- / -*	*- / 0.107*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 1.797*
B Kits												
Recurring												
C-130H:EQUIPMENT Group B (Active)	- / -	- / -	- / -	- / 0.000	- / -	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 0.000
C-130H:EQUIPMENT Group B (Guard)	- / -	- / -	120 / 3.755	7 / 0.225	- / -	7 / 0.225	- / -	- / -	- / -	- / -	- / -	127 / 3.980
C-130H:EQUIPMENT Group B (Reserve)	- / -	- / -	42 / 1.314	3 / 0.097	- / -	3 / 0.097	- / -	- / -	- / -	- / -	- / -	45 / 1.411
Subtotal: Recurring	*- / -*	*- / -*	*- / 5.069*	*- / 0.322*	*- / -*	*- / 0.322*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 5.391*
Subtotal: C-130H	*- / -*	*- / -*	*- / 6.759*	*- / 0.429*	*- / -*	*- / 0.429*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 7.188*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / 6.759*	*- / 0.429*	*- / -*	*- / 0.429*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 7.188*
Support *(All Modification Items)*												
GROUP A: TOTAL NONRECURRING	- / 0.000	- / 0.000	- / -	- / 0.000	- / -	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / 0.000
GROUP B: TOTAL NONRECURRING	- / 0.000	- / 0.000	- / -	- / 0.000	- / -	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / 0.000
Change Orders	- / 43.702	- / -	- / 5.741	- / 0.137	- / -	- / 0.137	- / 0.888	- / 0.080	- / -	- / -	- / -	- / 50.548
Data	- / 0.100	- / -	- / 0.500	- / 0.025	- / -	- / 0.025	- / 0.025	- / -	- / -	- / -	- / -	- / 0.650
SIM/TRAINER	- / -	- / -	- / -	- / -	- / -	- / -	4 / 3.453	4 / 3.673	- / -	- / -	- / -	8 / 7.126
SUPPORT-EQUIP	- / -	- / -	- / 0.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.500
GFP	- / 24.898	- / -	- / 0.150	- / 0.040	- / -	- / 0.040	- / -	- / -	- / -	- / -	- / -	- / 25.088
ICS-Labor	- / -	- / -	- / 0.100	- / 0.009	- / -	- / 0.009	- / 0.032	- / -	- / -	- / -	- / -	- / 0.141
ICS-Material	- / -	- / -	- / 0.050	- / 0.011	- / -	- / 0.011	- / 0.011	- / -	- / -	- / -	- / -	- / 0.072
Type 1 Training	- / -	- / -	- / 0.100	- / 0.050	- / -	- / 0.050	- / 0.030	- / -	- / -	- / -	- / -	- / 0.180
OTHER GOVT	- / -	- / -	- / -	- / 0.420	- / -	- / 0.420	- / -	- / -	- / -	- / -	- / -	- / 0.420
PMA - Contractor Services	- / 1.200	- / -	- / 1.500	- / 0.958	- / -	- / 0.958	- / 0.656	- / 0.090	- / -	- / -	- / -	- / 4.404
PMA - Other Gov't Costs	- / 0.100	- / -	- / 0.100	- / 0.100	- / -	- / 0.100	- / 0.003	- / 0.003	- / -	- / -	- / -	- / 0.306

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C13000 / C-130	**Modification Number / Title:** 92302 / C-130H Avionics Modernization Program (AMP) Increment 1
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: C-130H	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0401115F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Subtotal: Support	*- / 70.000*	*- / 0.000*	*- / 8.741*	*- / 1.750*	*- / -*	*- / 1.750*	*4 / 5.098*	*4 / 3.846*	*- / 0.000*	*- / -*	*- / -*	*8 / 89.435*
Installation												
Modification Item 1 of 1: C-130H	- / -	- / -	- / -	98 / 5.458	- / -	98 / 5.458	74 / 2.240	- / -	- / -	- / -	- / -	172 / 7.698
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*98 / 5.458*	*- / -*	*98 / 5.458*	*74 / 2.240*	*- / -*	*- / -*	*- / -*	*- / -*	*172 / 7.698*
Total												
Total Cost (Procurement + Support + Installation)	**70.000**	**0.000**	**15.500**	**7.637**	**0.000**	**7.637**	**7.338**	**3.846**	**0.000**	**-**	**-**	**104.321**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C13000 / C-130	**Modification Number / Title:** 92302 / C-130H Avionics Modernization Program (AMP) Increment 1

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 1: C-130H

Manufacturer Information

Manufacturer Name: iAccess

Manufacturer Location: Santa Ana, CA

Administrative Leadtime *(in Months)*: 2

Production Leadtime *(in Months)*: 9

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Jul 2018	Dec 2018				
Delivery Dates		Apr 2019	Sep 2019				

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	98 / 5.458	- / -	98 / 5.458	64 / 1.937	- / -	- / -	- / -	- / -	162 / 7.395
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	10 / 0.303	- / -	- / -	- / -	- / -	10 / 0.303
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	98 / 5.458	- / -	98 / 5.458	74 / 2.240	- / -	- / -	- / -	- / -	172 / 7.698

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	24	74	74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	172
Out	0	-	-	-	-	-	-	-	-	-	-	24	74	74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	172

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C13000 / C-130	**Modification Number / Title:** 92316 / AFSOC C-130 Mods
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	0.000	11.000	7.935	0.000	7.935	7.937	0.000	0.000	0.000	0.000	26.872
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	0.000	11.000	7.935	0.000	7.935	7.937	0.000	0.000	0.000	0.000	26.872
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**0.000**	**11.000**	**7.935**	**0.000**	**7.935**	**7.937**	**0.000**	**0.000**	**0.000**	**0.000**	**26.872**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

AFSOC C-130H Mods are focused on compliance and capability improvements. The compliance aspect will install the Automatic Dependent Surveillance-Broadcast (ADS-B) Out and Enhanced Mode S capabilities on 16 MC-130H aircraft to comply with the Federal Aviation Administration/International Civil Aviation Organization (FAA/ICAO) Communication/Navigation/Surveillance and Air Traffic Management (CNS/ATM) mandated upgrades. Additionally capability improvements include installing updated digital flight data recorders (DFDR), Light Weight Armor (LWA), and the Electronic Propeller Control System (EPCS) on 15 MC-130H fleet aircraft. The DFDR replaces old analog systems with digital systems. The EPCS system replaces mechanical propeller control system and synchrophaser with an electronic control system. Identified obsolescence and Diminishing Manufacturing Source (DMS) issues will be resolved, the DMS effort may include removal of end-of-life software/hardware within simulator systems and move to a modular, common open system architecture that is sustainable and cyber-resilient. AF 1067s are the validated source for these modifications.

Milestone/Development Status

The modifications only require non-reoccurring engineering funds and no development funds. The ADS-B Out contract is planned to award in 3rd quarter FY18. LWA contract is planned to award in 4th quarter FY18. DFDR is planned to award in 4th quarter FY19.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	11.000	7.935	-	7.935	7.937	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**0.000**	**11.000**	**7.935**	**0.000**	**7.935**	**7.937**	**0.000**	**0.000**	**0.000**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	P-1 Line Item Number / Title: C13000 / C-130	Modification Number / Title: 92316 / AFSOC C-130 Mods
ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:	
Models of Systems Affected: MC-130H	Modification Type: Capability Improvement	Related RDT&E PEs: 0401115F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 4: ADS-B Out												
A Kits												
Recurring												
ADS-B Out:INSTALL KITS Group A (Active)	- / -	- / -	16 / 0.880	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 0.880
Subtotal: Recurring	- / -	- / -	- / *0.880*	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / *0.880*
B Kits												
Recurring												
ADS-B Out:EQUIPMENT Group B (Active)	- / -	- / -	16 / 1.970	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 1.970
Subtotal: Recurring	- / -	- / -	- / *1.970*	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / *1.970*
Subtotal: ADS-B Out	- / -	- / -	- / *2.850*	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / *2.850*
Modification Item 2 of 4: DFDR												
A Kits												
Recurring												
DFDR:INSTALL KITS Group A (Active)	- / -	- / -	- / -	15 / 1.234	- / -	15 / 1.234	- / -	- / -	- / -	- / -	- / -	15 / 1.234
Subtotal: Recurring	- / -	- / -	- / -	- / *1.234*	- / -	- / *1.234*	- / -	- / -	- / -	- / -	- / -	- / *1.234*
B Kits												
Recurring												
DFDR:EQUIPMENT Group B (Active)	- / -	- / -	- / -	15 / 1.085	- / -	15 / 1.085	- / -	- / -	- / -	- / -	- / -	15 / 1.085
Subtotal: Recurring	- / -	- / -	- / -	- / *1.085*	- / -	- / *1.085*	- / -	- / -	- / -	- / -	- / -	- / *1.085*
Subtotal: DFDR	- / -	- / -	- / -	- / *2.319*	- / -	- / *2.319*	- / -	- / -	- / -	- / -	- / -	- / *2.319*
Modification Item 3 of 4: EPCS												
A Kits												
Recurring												
EPCS:INSTALL KITS Group A (Active)	- / -	- / -	- / -	- / -	- / -	- / -	4 / 0.560	- / -	- / -	- / -	- / -	4 / 0.560
Subtotal: Recurring	- / -	- / -	- / -	- / -	- / -	- / -	- / *0.560*	- / -	- / -	- / -	- / -	- / *0.560*
B Kits												
Recurring												
EPCS:EQUIPMENT Group B (Active)	- / -	- / -	- / -	- / -	- / -	- / -	4 / 3.862	- / -	- / -	- / -	- / -	4 / 3.862
Subtotal: Recurring	- / -	- / -	- / -	- / -	- / -	- / -	- / *3.862*	- / -	- / -	- / -	- / -	- / *3.862*
Subtotal: EPCS	- / -	- / -	- / -	- / -	- / -	- / -	- / *4.422*	- / -	- / -	- / -	- / -	- / *4.422*

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C13000 / C-130	**Modification Number / Title:** 92316 / AFSOC C-130 Mods
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: MC-130H	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0401115F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Modification Item 4 of 4: LWA												
B Kits												
Recurring												
LWA:EQUIPMENT Group B (Active)	- / -	- / -	15 / 2.595	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / 2.595
Subtotal: Recurring	*- / -*	*- / -*	*- / 2.595*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 2.595*
Subtotal: LWA	*- / -*	*- / -*	*- / 2.595*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 2.595*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / 5.445*	*- / 2.319*	*- / -*	*- / 2.319*	*- / 4.422*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 12.186*
Support *(All Modification Items)*												
GROUP B: TOTAL NONRECURRING	- / -	- / -	- / 3.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.500
PMA - Contractor Services	- / -	- / -	- / -	- / 0.560	- / -	- / 0.560	- / 0.600	- / -	- / -	- / -	- / -	- / 1.160
ICS-Labor	- / -	- / -	- / -	- / 0.330	- / -	- / 0.330	- / -	- / -	- / -	- / -	- / -	- / 0.330
SIM/TRAINER	- / -	- / -	0 / 0.425	0 / 0.200	- / -	0 / 0.200	- / -	- / -	- / -	- / -	- / -	0 / 0.625
PMA - Other Gov't Costs	- / -	- / -	- / 0.650	- / 0.934	- / -	- / 0.934	- / 0.450	- / -	- / -	- / -	- / -	- / 2.034
Data	- / -	- / -	- / 0.275	- / 2.783	- / -	- / 2.783	- / -	- / -	- / -	- / -	- / -	- / 3.058
SUPPORT-EQUIP	- / -	- / -	- / 0.705	- / 0.809	- / -	- / 0.809	- / 1.030	- / -	- / -	- / -	- / -	- / 2.544
Subtotal: Support	*- / -*	*- / -*	*0 / 5.555*	*0 / 5.616*	*- / -*	*0 / 5.616*	*- / 2.080*	*- / -*	*- / -*	*- / -*	*- / -*	*0 / 13.251*
Installation												
Modification Item 2 of 4: DFDR	- / -	- / -	- / -	- / -	- / -	- / -	15 / 0.610	- / -	- / -	- / -	- / -	15 / 0.610
Modification Item 3 of 4: EPCS	- / -	- / -	- / -	- / -	- / -	- / -	4 / 0.825	- / -	- / -	- / -	- / -	4 / 0.825
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*19 / 1.435*	*- / -*	*- / -*	*- / -*	*- / -*	*19 / 1.435*
Total												
Total Cost (Procurement + Support + Installation)	**0.000**	**0.000**	**11.000**	**7.935**	**0.000**	**7.935**	**7.937**	**0.000**	**0.000**	**0.000**	**0.000**	**26.872**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C13000 / C-130	**Modification Number / Title:** 92316 / AFSOC C-130 Mods

ID Code (A=Service Ready, B=Not Service Ready) : B | **MDAP/MAIS Code:**

Modification Item 1 of 4: ADS-B Out

Manufacturer Information

Manufacturer Name: TBD | Manufacturer Location: TBD

Administrative Leadtime *(in Months)*: 3 | Production Leadtime *(in Months)*: 6

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Jun 2018					
Delivery Dates		Dec 2018					

Installation Information

Method of Implementation (Organic): Org/Intermediate | **Installation Quantity:** 16

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C13000 / C-130	**Modification Number / Title:** 92316 / AFSOC C-130 Mods
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 2 of 4: DFDR

Manufacturer Information

Manufacturer Name: TBD	Manufacturer Location: TBD
Administrative Leadtime *(in Months)*: 2	Production Leadtime *(in Months)*: 1

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates			Sep 2019				
Delivery Dates			Oct 2019				

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	15 / 0.610	- / -	- / -	- / -	- / -	15 / 0.610
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	15 / 0.610	- / -	- / -	- / -	- / -	15 / 0.610

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	-	4	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	0	15
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	4	5	6	-	-	-	-	-	-	-	-	-	-	-	-	0	15

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C13000 / C-130	**Modification Number / Title:** 92316 / AFSOC C-130 Mods

ID Code (A=Service Ready, B=Not Service Ready) : B | **MDAP/MAIS Code:**

Modification Item 3 of 4: EPCS

Manufacturer Information

Manufacturer Name: TBD | Manufacturer Location: TBD

Administrative Leadtime *(in Months)*: 1 | Production Leadtime *(in Months)*: 3

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates				Nov 2019			
Delivery Dates				Feb 2020			

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	4 / 0.825	- / -	- / -	- / -	- / -	4 / 0.825
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	4 / 0.825	- / -	- / -	- / -	- / -	4 / 0.825

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	0	4
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	0	4

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C13000 / C-130	**Modification Number / Title:** 92316 / AFSOC C-130 Mods

ID Code (A=Service Ready, B=Not Service Ready) : B | **MDAP/MAIS Code:**

Modification Item 4 of 4: LWA

Manufacturer Information

Manufacturer Name: TBD | Manufacturer Location: TBD

Administrative Leadtime *(in Months)*: 1 | Production Leadtime *(in Months)*: 5

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Sep 2018					
Delivery Dates		Feb 2019					

Installation Information

Method of Implementation (Organic): Org/Intermediate | **Installation Quantity:** 15

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** C1300J / C-130J Mods

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0401132F	Other Related Program Elements: 0401132F

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	152.925	89.424	179.630	132.045	0.000	132.045	144.028	114.338	164.002	166.983	949.951	2,093.326
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	152.925	89.424	179.630	132.045	0.000	132.045	144.028	114.338	164.002	166.983	949.951	2,093.326
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**152.925**	**89.424**	**179.630**	**132.045**	**0.000**	**132.045**	**144.028**	**114.338**	**164.002**	**166.983**	**949.951**	**2,093.326**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The C-130J is a medium-size transport aircraft capable of performing a variety of combat delivery (tactical airlift) operations across a broad range of mission environments. The C-130J aircraft, with its extended (by 15 ft) fuselage, provides additional cargo carrying capacity for the USAF combat delivery mission compared with legacy C-130E/Hs and the C-130J (short).

Other variants of the USAF C-130J fleet are all short-bodied aircraft and include the EC-130J (airborne psychological operations), WC-130J (weather reconnaissance), HC-130J (combat search and rescue), MC-130J (special operations), and the AC-130J (close air support and armed reconnaissance).

As of 1 May 2017, there are 194 USAF C-130J Variants: C-130J - 102, C-130J (short) - 10, WC-130J - 10, EC-130J - 7, HC-130J - 20, MC-130J - 34, AC-130J - 11. The designed service life is 35 years and the average service life remaining is 27.6 years.

Funding for this exhibit is contained in PE 0401132F. Funding may be used to address Diminishing Manufacturing Sources (DMS) issues.

In FY18, the center wing box replacement program continues with the installation of two enhanced service life (ESL) center wing kits and the procurement of two ESL kits. Since Nov 2009, all production C-130Js have been delivered with the ESL center wing.

In order to better manage the fleet and avoid having to simultaneously support three separate aircraft configurations (Block 6, Block 7 and Block 8.1), Blocks 7.0 and 8.1 have been combined into one aircraft modification program. This way the aircraft and trainers will only have to be modified one time. The Block 8.1 mod includes Block 7.0 content.

The international C-130J Block 8.1 DT&E is complete with OT&E scheduled for 2018. The Block 8.1 modification contract will be awarded in 2017.

Block 8.1 includes ADS-B Out and Mode V IFF as well as 34 additional capabilities. In order to meet the Federal Aviation Administration (FAA) 2020 mandate the USAF will install the Block 8.1 ADS-B Out/Mode V IFF solution on all C-130J variants not scheduled to receive Block 8.1 by January 2020. All C-130Js will still require Block 8.1

FY19 includes funding transfer in $1,567M for Rapid Global Mobility Live Virtual Construct program.

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** C1300J / C-130J Mods	
ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0401132F	**Other Related Program Elements:** 0401132F
Line Item MDAP/MAIS Code: N/A		

NOTE: USMC KC-130Js and USCG HC-130Js are following USAF's lead and will also field combined Block 7/8.1 aircraft.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	89.424	179.630	132.045	-	132.045	144.028	114.338	164.002	166.983
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**89.424**	**179.630**	**132.045**	**-**	**132.045**	**144.028**	**114.338**	**164.002**	**166.983**

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** C1300J / C-130J Mods

ID Code (A=Service Ready, B=Not Service Ready): B | **Program Elements for Code B Items:** 0401132F | **Other Related Program Elements:** 0401132F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	_2612 / Avionics System and Structural Modifications (Capability Improvement)				- / 26.256	- / 0.488	- / 6.400	- / 0.288	- / -	- / 0.288
P-40a***	_5296 / Wind Gust Brake (Reliability & Maintainability)				- / 35.743	- / 1.112	- / 1.500	- / 0.250	- / -	- / 0.250
P-40a***	99999X / Low Cost Modifications (Safety)				- / 9.107	- / 0.099	- / 0.500	- / 0.500	- / -	- / 0.500
P-3a	5222 / BLOCK 8.1 (Capability Improvement)		B		- / 28.716	- / 71.729	- / 141.830	- / 112.182	- / 0.000	- / 112.182
P-3a	8646 / C-130J Center Wing Replacement (Service Life Extension)		A		- / 53.103	- / 15.996	- / 29.400	- / 18.825	- / 0.000	- / 18.825
P-40	**Total Gross/Weapon System Cost**				**- / 152.925**	**- / 89.424**	**- / 179.630**	**- / 132.045**	**- / 0.000**	**- / 132.045**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	_2612 / Avionics System and Structural Modifications (Capability Improvement)				- / 0.649	- / -	- / -	- / -	- / -	- / 34.081
P-40a***	_5296 / Wind Gust Brake (Reliability & Maintainability)				- / -	- / -	- / -	- / -	- / -	- / 38.605
P-40a***	99999X / Low Cost Modifications (Safety)				- / 0.560	- / 2.000	- / 0.495	- / 0.461	- / 2.500	- / 16.222
P-3a	5222 / BLOCK 8.1 (Capability Improvement)		B		- / 114.528	- / 111.833	- / 162.992	- / 165.963	- / 946.882	- / 1,856.655
P-3a	8646 / C-130J Center Wing Replacement (Service Life Extension)		A		- / 28.291	- / 0.505	- / 0.515	- / 0.559	- / 0.569	- / 147.763
P-40	**Total Gross/Weapon System Cost**				**- / 144.028**	**- / 114.338**	**- / 164.002**	**- / 166.983**	**- / 949.951**	**- / 2,093.326**

*** Although this is an Exhibit P-40a item, the actual exhibit is not included since all of the required information for this item is already being shown here.

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C1300J / C-130J Mods	**Modification Number / Title:** 5222 / BLOCK 8.1
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	28.716	71.729	141.830	112.182	0.000	112.182	114.528	111.833	162.992	165.963	946.882	1,856.655
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	28.716	71.729	141.830	112.182	0.000	112.182	114.528	111.833	162.992	165.963	946.882	1,856.655
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**28.716**	**71.729**	**141.830**	**112.182**	**0.000**	**112.182**	**114.528**	**111.833**	**162.992**	**165.963**	**946.882**	**1,856.655**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The C-130J combined 7.0 and 8.1 Block Upgrades (BU) modification program funds the procurement and installation of Communication, Navigation and Surveillance Air Traffic Management (CNS/ATM) navigation safety and other aircraft hardware and software improvements on USAF C-130J aircraft and associated training systems. The combined BU 7.0 and 8.1 (now called just Block 8.1) is being implemented to maintain access to global airspace, enhance aircraft navigational accuracy and aircrew situational awareness. It increases overall C-130J operational utility/effectiveness and reduces C-130J systems/parts obsolescence.

Block 8.1 provided 38 capabilities for the C-130J including: a new Flight Management System, civil GPS, Link-16, digital maps, Mission Computer - Operational Flight Program (MC-OFP), a modified control yoke, TEMPEST compliance, Identification Friend or Foe (IFF) Transponder Mode 5, Enhanced Inter-Communication System, CNS/ATM Civil Data Link and Automatic Dependent Surveillance Broadcast (ADS-B) out. The HC/MC/AC Block 8.1 retrofit program begins in FY19 under the HC/MC Recap Mod program. HQ AMC procures the "common" Group B Kits only for the EC/HC/MC/AC Block 8.1 program. All "variant unique" hardware is procured by the applicable variant. HQ AMC is collaborating with AFRC ad ANG units to provide funding in the out years to retrofit their respective units.

This funding request will support DMS and obsolescence solutions, to include if optimal, life of type buys or bridge buys limited to the program of record quantity.

Support equipment cost element contains support equipment and initial spares.

The ADS-B Out and Mode V IFF capability is being accelerated ahead of the complete Block 8.1 mod in order tom meet Jan 2020 mandates and are included in this document.

FY18 and FY19 procures Retrofit kits.

Milestone/Development Status

Block 8.1 development is complete. BU 8.1 operational testing will occur in FY18.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	71.729	141.830	112.182	-	112.182	114.528	111.833	162.992	165.963
Total:	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C1300J / C-130J Mods	**Modification Number / Title:** 5222 / BLOCK 8.1
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Secondary Distribution	Total Obligation Authority	71.729	141.830	112.182	0.000	112.182	114.528	111.833	162.992	165.963

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C1300J / C-130J Mods	**Modification Number / Title:** 5222 / BLOCK 8.1
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: C-130J	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0401132F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0401132F	- / 19.360	- / 9.294	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 28.654
Procurement												
Modification Item 1 of 2: ADS-B Out												
A Kits												
Recurring												
ADS-B Out:INSTALL KITS Group A (Active)	- / -	241 / 22.534	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	241 / 22.534
Subtotal: Recurring	- / -	- / 22.534	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 22.534
B Kits												
Recurring												
ADS-B Out:EQUIPMENT Group B (Active)	- / -	241 / 34.023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	241 / 34.023
Subtotal: Recurring	- / -	- / 34.023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 34.023
Subtotal: ADS-B Out	- / -	- / 56.557	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 56.557
Modification Item 2 of 2: Block 81 LM Kit												
A Kits												
Recurring												
Block 81 LM Kit:INSTALL KITS Group A (Active)	1 / 1.143	- / -	12 / 12.772	13 / 14.332	- / -	13 / 14.332	18 / 21.240	10 / 11.800	19 / 22.848	19 / 23.625	66 / 89.642	158 / 197.402
Subtotal: Recurring	- / 1.143	- / -	- / 12.772	- / 14.332	- / -	- / 14.332	- / 21.240	- / 11.800	- / 22.848	- / 23.625	- / 89.642	- / 197.402
B Kits												
Recurring												
Block 81 LM Kit:EQUIPMENT Group B (Active)	1 / 2.286	- / -	12 / 21.849	28 / 55.751	- / -	28 / 55.751	31 / 63.194	24 / 50.980	32 / 69.016	30 / 66.385	155 / 370.458	313 / 699.919
Subtotal: Recurring	- / 2.286	- / -	- / 21.849	- / 55.751	- / -	- / 55.751	- / 63.194	- / 50.980	- / 69.016	- / 66.385	- / 370.458	- / 699.919
Subtotal: Block 81 LM Kit	- / 3.429	- / -	- / 34.621	- / 70.083	- / -	- / 70.083	- / 84.434	- / 62.780	- / 91.864	- / 90.010	- / 460.100	- / 897.321
Subtotal: Procurement, All Modification Items	- / 3.429	- / 56.557	- / 34.621	- / 70.083	- / -	- / 70.083	- / 84.434	- / 62.780	- / 91.864	- / 90.010	- / 460.100	- / 953.878
Support *(All Modification Items)*												
GROUP B: TOTAL NONRECURRING	- / 21.253	- / -	- / 16.894	- / 8.558	- / -	- / 8.558	- / 0.860	- / 6.000	- / -	- / -	- / -	- / 53.565
OTHER GOVT	- / -	- / 3.143	- / 23.763	- / 5.836	- / -	- / 5.836	- / 3.514	- / 3.390	- / 13.509	- / 6.425	- / -	- / 59.580
Data	- / -	- / 6.150	- / 5.540	- / -	- / -	- / -	- / -	- / -	- / 0.223	- / 0.230	- / 0.752	- / 12.895
GFP	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 25.351	- / 25.351
SIM/TRAINER	- / -	- / -	0 / 20.542	0 / 5.128	- / -	0 / 5.128	- / -	- / -	0 / 12.413	0 / 8.660	0 / 22.700	0 / 69.443
SUPPORT-EQUIP	- / 1.162	- / 3.930	- / 24.826	- / 6.677	- / -	- / 6.677	- / 2.650	- / 1.759	- / 5.710	- / 5.139	- / 28.333	- / 80.186
ICS-Labor	- / 0.161	- / 0.755	- / 9.255	- / 6.300	- / -	- / 6.300	- / 5.287	- / 8.130	- / 5.300	- / 5.000	- / 45.000	- / 85.188

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C1300J / C-130J Mods	**Modification Number / Title:** 5222 / BLOCK 8.1
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: C-130J	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0401132F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Change Orders	- / -	- / -	- / 0.300	- / 0.500	- / -	- / 0.500	- / -	- / -	- / -	- / 17.300	- / 99.774	- / 117.874
PMA - Other Gov't Costs	- / 2.711	- / 1.194	- / 4.166	- / 3.200	- / -	- / 3.200	- / 1.483	- / 1.574	- / 3.573	- / 3.869	- / 28.842	- / 50.612
Type 1 Training	- / -	- / -	- / 1.923	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.923
Subtotal: Support	*- / 25.287*	*- / 15.172*	*0 / 107.209*	*0 / 36.199*	*- / -*	*0 / 36.199*	*- / 13.794*	*- / 20.853*	*0 / 40.728*	*0 / 46.623*	*0 / 250.752*	*0 / 556.617*
Installation												
Modification Item 1 of 2: ADS-B Out	- / -	- / -	- / -	217 / 5.900	- / -	217 / 5.900	24 / 0.700	- / -	- / -	- / -	- / -	241 / 6.600
Modification Item 2 of 2: Block 81 LM Kit	- / -	- / -	- / -	- / -	- / -	- / -	8 / 15.600	15 / 28.200	16 / 30.400	15 / 29.330	104 / 236.030	158 / 339.560
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*217 / 5.900*	*- / -*	*217 / 5.900*	*32 / 16.300*	*15 / 28.200*	*16 / 30.400*	*15 / 29.330*	*104 / 236.030*	*399 / 346.160*
Total												
Total Cost (Procurement + Support + Installation)	**28.716**	**71.729**	**141.830**	**112.182**	**0.000**	**112.182**	**114.528**	**111.833**	**162.992**	**165.963**	**946.882**	**1,856.655**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C1300J / C-130J Mods	**Modification Number / Title:** 5222 / BLOCK 8.1
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 2: ADS-B Out

Manufacturer Information

Manufacturer Name: Lockheed Martin	Manufacturer Location: Marietta GA
Administrative Leadtime *(in Months)*: 0	Production Leadtime *(in Months)*: 7

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Dec 2017	Aug 2018	Oct 2019	Oct 2020	Oct 2021		
Delivery Dates	Jul 2018	Mar 2019	May 2020	May 2021	May 2022		

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	217 / 5.900	- / -	217 / 5.900	24 / 0.700	- / -	- / -	- / -	- / -	241 / 6.600
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	217 / 5.900	- / -	217 / 5.900	24 / 0.700	- / -	- / -	- / -	- / -	241 / 6.600

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	32	103	82	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	241
Out	0	-	-	-	-	-	-	-	-	-	32	103	82	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	241

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C1300J / C-130J Mods	**Modification Number / Title:** 5222 / BLOCK 8.1

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 2 of 2: Block 81 LM Kit

Manufacturer Information

Manufacturer Name: Lockheed Martin

Manufacturer Location: Marietta GA/Greenville SC

Administrative Leadtime *(in Months)*: 3

Production Leadtime *(in Months)*: 24

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Nov 2017	Nov 2017	Jan 2019	Nov 2019	Nov 2020	Nov 2021	Nov 2022
Delivery Dates	Jan 2020	Jan 2020	Jan 2021	Jan 2022	Jan 2023	Jan 2024	Jan 2025

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	1 / 2.100	- / -	- / -	- / -	- / -	1 / 2.100
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	7 / 13.500	5 / 11.620	- / -	- / -	- / -	12 / 25.120
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 16.580	3 / 6.499	- / -	- / -	13 / 23.079
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	13 / 23.901	5 / 10.940	- / -	18 / 34.841
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 18.390	- / -	10 / 18.390
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	19 / 38.270	19 / 38.270
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	19 / 39.120	19 / 39.120
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	66 / 158.640	66 / 158.640
Total	- / -	- / -	- / -	- / -	- / -	- / -	8 / 15.600	15 / 28.200	16 / 30.400	15 / 29.330	104 / 236.030	158 / 339.560

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	-	2	0	2	4	3	3	4	5	3	5	3	5	5	4	4	2	104	158
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	2	3	5	5	5	5	6	5	5	6	5	5	4	97	158

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C1300J / C-130J Mods	**Modification Number / Title:** 8646 / C-130J Center Wing Replacement
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	53.103	15.996	29.400	18.825	0.000	18.825	28.291	0.505	0.515	0.559	0.569	147.763
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	53.103	15.996	29.400	18.825	0.000	18.825	28.291	0.505	0.515	0.559	0.569	147.763
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**53.103**	**15.996**	**29.400**	**18.825**	**0.000**	**18.825**	**28.291**	**0.505**	**0.515**	**0.559**	**0.569**	**147.763**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This program replaces the Center Wing Box (CWB) on C-130J aircraft with an extended service life (ESL) center wing. The ESL wing has been the standard production wing since Nov 2009. The first 77 C-130Js were built with the legacy C-130H center wing. The legacy wing has a life of 38,500 equivalent flying hours (EFH) before flight restrictions are imposed. The severity of the flight environment dictates how rapidly a wing needs to be replaced. The planes at the C-130J schoolhouse require replacement first, as virtually all of their flight hours are tactical. Validated Requirements Document: AF IMT 1067 (Modification Proposal) AMC-11-115, dated 19 Sep 11.

Milestone/Development Status

N/A

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	15.996	29.400	18.825	-	18.825	28.291	0.505	0.515	0.559
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**15.996**	**29.400**	**18.825**	**0.000**	**18.825**	**28.291**	**0.505**	**0.515**	**0.559**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C1300J / C-130J Mods	**Modification Number / Title:** 8646 / C-130J Center Wing Replacement
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: C-130J	**Modification Type:** Service Life Extension	**Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: C-130J CWR Contract 1												
A Kits												
Recurring												
C-130J CWR Contract 1:INSTALL KITS Group A (Active)	9 / 33.185	2 / 9.274	5 / 21.304	2 / 8.538	- / -	2 / 8.538	3 / 14.002	- / -	- / -	- / -	- / -	21 / 86.303
Subtotal: Recurring	*- / 33.185*	*- / 9.274*	*- / 21.304*	*- / 8.538*	*- / -*	*- / 8.538*	*- / 14.002*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 86.303*
Subtotal: C-130J CWR Contract 1	*- / 33.185*	*- / 9.274*	*- / 21.304*	*- / 8.538*	*- / -*	*- / 8.538*	*- / 14.002*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 86.303*
Subtotal: Procurement, All Modification Items	*- / 33.185*	*- / 9.274*	*- / 21.304*	*- / 8.538*	*- / -*	*- / 8.538*	*- / 14.002*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 86.303*
Support *(All Modification Items)*												
GROUP A: TOTAL NONRECURRING	- / 8.240	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 8.240
Data	- / 1.043	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.043
OCO INSTALLATIONS	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000
PMA - Contractor Services	- / 1.130	- / 0.488	- / 0.498	- / 0.485	- / -	- / 0.485	- / 0.494	- / 0.469	- / 0.478	- / 0.521	- / 0.530	- / 5.093
PMA - Other Gov't Costs	- / 0.034	- / 0.012	- / 0.012	- / 0.034	- / -	- / 0.034	- / 0.035	- / 0.036	- / 0.037	- / 0.038	- / 0.039	- / 0.277
Subtotal: Support	*- / 10.447*	*- / 0.500*	*- / 0.510*	*- / 0.519*	*- / -*	*- / 0.519*	*- / 0.529*	*- / 0.505*	*- / 0.515*	*- / 0.559*	*- / 0.569*	*- / 14.653*
Installation												
Modification Item 1 of 1: C-130J CWR Contract 1	0 / 9.471	4 / 6.222	3 / 7.586	3 / 9.768	- / -	3 / 9.768	3 / 13.760	3 / 0.000	3 / 0.000	2 / 0.000	- / -	21 / 46.807
Subtotal: Installation	*- / 9.471*	*4 / 6.222*	*3 / 7.586*	*3 / 9.768*	*- / -*	*3 / 9.768*	*3 / 13.760*	*3 / -*	*3 / -*	*2 / -*	*- / -*	*21 / 46.807*
Total												
Total Cost (Procurement + Support + Installation)	**53.103**	**15.996**	**29.400**	**18.825**	**0.000**	**18.825**	**28.291**	**0.505**	**0.515**	**0.559**	**0.569**	**147.763**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C1300J / C-130J Mods	**Modification Number / Title:** 8646 / C-130J Center Wing Replacement
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 1 of 1: C-130J CWR Contract 1

Manufacturer Information

Manufacturer Name: Lockheed Martin Aero	Manufacturer Location: Marietta GA
Administrative Leadtime *(in Months)*: 3	Production Leadtime *(in Months)*: 27

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Jan 2017	Jan 2018	Jan 2019	Jan 2020			
Delivery Dates	Apr 2019	Apr 2020	Apr 2021	Apr 2022			

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	0 / 9.471	4 / 6.222	3 / 3.463	2 / 6.420	- / -	2 / 6.420	- / -	- / -	- / -	- / -	- / -	9 / 25.576
FY 2017	- / -	- / -	- / -	1 / 3.348	- / -	1 / 3.348	0 / 3.440	1 / 0.000	- / -	- / -	- / -	2 / 6.788
FY 2018	- / -	- / -	0 / 4.123	- / -	- / -	- / -	3 / 10.320	2 / 0.000	- / -	- / -	- / -	5 / 14.443
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.000	- / -	- / -	2 / 0.000
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.000	2 / 0.000	- / -	3 / 0.000
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 9.471	4 / 6.222	3 / 7.586	3 / 9.768	- / -	3 / 9.768	3 / 13.760	3 / 0.000	3 / 0.000	2 / 0.000	- / -	21 / 46.807

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	1	1	1	1	1	1	-	1	1	-	1	1	1	-	1	1	-	1	1	1	1	-	1	1	1	-	1	-	0	21
Out	0	-	-	-	-	1	1	1	1	1	1	-	1	1	-	1	1	-	1	1	-	1	1	1	1	-	1	1	1	2	21

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** C13500 / C-135

ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0401218F	**Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	161.781	64.161	69.428	113.076	0.000	113.076	124.491	104.383	108.192	110.159	152.212	1,007.883
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	161.781	64.161	69.428	113.076	0.000	113.076	124.491	104.383	108.192	110.159	152.212	1,007.883
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**161.781**	**64.161**	**69.428**	**113.076**	**0.000**	**113.076**	**124.491**	**104.383**	**108.192**	**110.159**	**152.212**	**1,007.883**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The C/KC-135 is a four engine aircraft used for long range cargo and passenger airlift and to support theater commanders. The C/KC-135 provides air refueling through either the refueling boom or drogue. As a cargo aircraft, the C/KC-135 can carry six standard 463-L pallets. There are 400 aircraft (396 KCs, 4 special purpose) in the C/KC-135 inventory. The average age is 55 years, with 22 years of service life remaining. The KC-135 has a retirement strategy through its projected service life of 2040.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Funding for this exhibit is contained in PE 0401218F.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	37.754	42.326	67.151	0.000	67.151	67.432	47.382	60.437	74.084
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	17.910	17.523	31.390	-	31.390	41.349	42.429	35.517	26.018
AFR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	8.497	9.579	14.535	-	14.535	15.710	14.572	12.238	10.057
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**64.161**	**69.428**	**113.076**	**0.000**	**113.076**	**124.491**	**104.383**	**108.192**	**110.159**

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft

P-1 Line Item Number / Title:
C13500 / C-135

ID Code (A=Service Ready, B=Not Service Ready): B | **Program Elements for Code B Items:** 0401218F | **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	9818 / VOR/ILS ANTENNAE (Capability Improvement)				- / 9.230	- / 0.162	- / -	- / 0.001	- / -	- / 0.001
P-40a***	9824 / ADS-B (Capability Improvement)				- / -	- / -	- / 5.000	- / 3.200	- / -	- / 3.200
P-40a***	99999A / LOW COST SAFETY MODIFICATIONS (Capability Improvement)				- / 0.025	- / 0.025	- / 0.025	- / 0.025	- / -	- / 0.025
P-40a***	99999X / Low Cost Modifications (Capability Improvement)				- / 9.092	- / 1.901	- / 1.111	- / 1.995	- / -	- / 1.995
P-3a	8653 / BLOCK 45 (Capability Improvement)		A		- / 143.434	- / 57.170	- / 57.314	- / 53.865	- / 0.000	- / 53.865
P-3a	9826 / Rudder Position Indicator (RPI) (Capability Improvement)		B		- / -	- / 4.903	- / 5.978	- / 6.124	- / 0.000	- / 6.124
P-3a	9827 / KC-135 AERO-I SATCOM replacement (Reliability & Maintainability)		B		- / -	- / 0.000	- / 0.000	- / 21.666	- / 0.000	- / 21.666
P-3a	9828 / Real Time in the Cockpit (RTIC) (Capability Improvement)		B		- / -	- / -	- / -	- / 26.200	- / 0.000	- / 26.200
P-40	**Total Gross/Weapon System Cost**				**- / 161.781**	**- / 64.161**	**- / 69.428**	**- / 113.076**	**- / 0.000**	**- / 113.076**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	9818 / VOR/ILS ANTENNAE (Capability Improvement)				- / 0.001	- / 0.001	- / 0.001	- / 0.001	- / -	- / 9.397
P-40a***	9824 / ADS-B (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / 8.200
P-40a***	99999A / LOW COST SAFETY MODIFICATIONS (Capability Improvement)				- / 0.025	- / 0.025	- / 0.025	- / 0.025	- / 0.050	- / 0.250
P-40a***	99999X / Low Cost Modifications (Capability Improvement)				- / 1.995	- / 1.995	- / 1.995	- / 1.995	- / -	- / 22.079
P-3a	8653 / BLOCK 45 (Capability Improvement)		A		- / 54.509	- / 57.260	- / 73.710	- / 92.944	- / 124.912	- / 715.118
P-3a	9826 / Rudder Position Indicator (RPI) (Capability Improvement)		B		- / 6.267	- / 5.270	- / 6.245	- / 3.141	- / 1.000	- / 38.928
P-3a	9827 / KC-135 AERO-I SATCOM replacement (Reliability & Maintainability)		B		- / 38.694	- / 39.832	- / 26.216	- / 12.053	- / 26.250	- / 164.711
P-3a	9828 / Real Time in the Cockpit (RTIC) (Capability Improvement)		B		- / 23.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / 49.200
P-40	**Total Gross/Weapon System Cost**				**- / 124.491**	**- / 104.383**	**- / 108.192**	**- / 110.159**	**- / 152.212**	**- / 1,007.883**

*** Although this is an Exhibit P-40a item, the actual exhibit is not included since all of the required information for this item is already being shown here.

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C13500 / C-135	**Modification Number / Title:** 8653 / BLOCK 45
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	143.434	57.170	57.314	53.865	0.000	53.865	54.509	57.260	73.710	92.944	124.912	715.118
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	143.434	57.170	57.314	53.865	0.000	53.865	54.509	57.260	73.710	92.944	124.912	715.118
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**143.434**	**57.170**	**57.314**	**53.865**	**0.000**	**53.865**	**54.509**	**57.260**	**73.710**	**92.944**	**124.912**	**715.118**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Block 45 program replaces legacy parts that are difficult to maintain, driving high sustainment costs, failing at high rates, and are no longer procurable. The modification includes a new Digital Flight Director (DFD), Digital Radio Altimeter (RA), Digital Autopilot (AP) and Electronic Engine Instrument Displays (EEID). Block 45 requirements are outlined in the Capability Production Document for C/KC-135 Communications, Navigation, and Surveillance / Air Traffic Management (CNS/ATM), dated 17 May 12. Program of record: 400 C/KC-135 aircraft, 19 pilot simulators and 5 cockpit simulators with Block 45. The Block 45 program's associated Research Development Test and Evaluation funding (PE 0401218F) modified two prototype aircraft. The remaining 398 aircraft will be funded with APAF. Funding may be used to address Diminishing Manufacturing Sources (DMS) issues.

Milestone/Development Status

Developmental Test & Evaluation completed March 2013. Milestone C approval received 25 July 2013. Currently in Full Rate Production.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	31.765	32.377	23.633	-	23.633	23.110	25.960	41.230	60.203
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	17.199	16.054	20.003	-	20.003	22.606	23.257	23.352	22.934
AFR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	8.206	8.883	10.229	-	10.229	8.793	8.043	9.128	9.807
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**57.170**	**57.314**	**53.865**	**0.000**	**53.865**	**54.509**	**57.260**	**73.710**	**92.944**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C13500 / C-135	**Modification Number / Title:** 8653 / BLOCK 45
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: KC-135	**Modification Type:** Capability Improvement	**Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Block 45												
A Kits												
Recurring												
Block 45:INSTALL KITS Group A (Active)	41 / 3.705	11 / 0.801	12 / 0.891	14 / 1.003	- / -	14 / 1.003	14 / 1.013	15 / 1.063	14 / 1.004	15 / 1.088	24 / 1.777	160 / 12.345
Block 45:INSTALL KITS Group A (Guard)	40 / 3.821	13 / 0.946	10 / 0.743	16 / 1.147	- / -	16 / 1.147	18 / 1.303	17 / 1.205	17 / 1.219	16 / 1.161	29 / 2.145	176 / 13.690
Block 45:INSTALL KITS Group A (Reserve)	16 / 1.491	6 / 0.437	5 / 0.371	8 / 0.573	- / -	8 / 0.573	6 / 0.434	6 / 0.425	7 / 0.502	7 / 0.508	1 / 0.074	62 / 4.815
Subtotal: Recurring	*- / 9.017*	*- / 2.184*	*- / 2.005*	*- / 2.723*	*- / -*	*- / 2.723*	*- / 2.750*	*- / 2.693*	*- / 2.725*	*- / 2.757*	*- / 3.996*	*- / 30.850*
B Kits												
Recurring												
Block 45:EQUIPMENT Group B (Active)	41 / 26.172	11 / 7.898	12 / 8.761	14 / 10.488	- / -	14 / 10.488	14 / 10.706	15 / 11.757	14 / 11.255	15 / 12.231	24 / 19.656	160 / 118.924
Block 45:EQUIPMENT Group B (Guard)	40 / 26.372	13 / 9.334	10 / 7.301	16 / 11.987	- / -	16 / 11.987	18 / 13.764	17 / 13.324	17 / 13.667	16 / 13.046	29 / 23.723	176 / 132.518
Block 45:EQUIPMENT Group B (Reserve)	16 / 10.639	6 / 4.309	5 / 5.841	8 / 5.993	- / -	8 / 5.993	6 / 4.589	6 / 4.704	7 / 5.628	7 / 5.708	1 / 0.813	62 / 48.224
Subtotal: Recurring	*- / 63.183*	*- / 21.541*	*- / 21.903*	*- / 28.468*	*- / -*	*- / 28.468*	*- / 29.059*	*- / 29.785*	*- / 30.550*	*- / 30.985*	*- / 44.192*	*- / 299.666*
Subtotal: Block 45	*- / 72.200*	*- / 23.725*	*- / 23.908*	*- / 31.191*	*- / -*	*- / 31.191*	*- / 31.809*	*- / 32.478*	*- / 33.275*	*- / 33.742*	*- / 48.188*	*- / 330.516*
Subtotal: Procurement, All Modification Items	*- / 72.200*	*- / 23.725*	*- / 23.908*	*- / 31.191*	*- / -*	*- / 31.191*	*- / 31.809*	*- / 32.478*	*- / 33.275*	*- / 33.742*	*- / 48.188*	*- / 330.516*
Support *(All Modification Items)*												
Change Orders	- / 8.002	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 8.002
Data	- / 1.295	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 2.662	- / 3.957
SIM/TRAINER	10 / 21.382	5 / 10.036	3 / 5.175	2 / 3.634	- / -	2 / 3.634	0 / 0.736	0 / 0.325	4 / 8.990	0 / 0.000	- / -	24 / 50.278
SUPPORT-EQUIP	- / 0.468	- / 0.136	- / 0.140	- / 0.144	- / -	- / 0.144	- / 0.000	- / -	- / -	- / -	- / -	- / 0.888
OTHER GOVT	- / 17.436	- / 7.657	- / 10.686	- / 1.903	- / -	- / 1.903	- / 3.681	- / 5.640	- / 12.114	- / 39.286	- / 24.181	- / 122.584
PMA - Contractor Services	- / 2.396	- / 0.408	- / 0.420	- / 0.432	- / -	- / 0.432	- / 0.300	- / 0.305	- / 0.314	- / 0.323	- / 1.026	- / 5.924
PMA - Other Gov't Costs	- / 0.275	- / 0.072	- / 0.074	- / 0.076	- / -	- / 0.076	- / 0.078	- / 0.081	- / 0.083	- / 0.087	- / 0.271	- / 1.097
Subtotal: Support	*10 / 51.254*	*5 / 18.309*	*3 / 16.495*	*2 / 6.189*	*- / -*	*2 / 6.189*	*0 / 4.795*	*0 / 6.351*	*4 / 21.501*	*0 / 39.696*	*- / 28.140*	*24 / 192.730*
Installation												
Modification Item 1 of 1: Block 45	45 / 19.980	35 / 15.136	38 / 16.911	38 / 16.485	- / -	38 / 16.485	38 / 17.905	38 / 18.431	38 / 18.934	38 / 19.506	90 / 48.584	398 / 191.872
Subtotal: Installation	*45 / 19.980*	*35 / 15.136*	*38 / 16.911*	*38 / 16.485*	*- / -*	*38 / 16.485*	*38 / 17.905*	*38 / 18.431*	*38 / 18.934*	*38 / 19.506*	*90 / 48.584*	*398 / 191.872*
Total												
Total Cost (Procurement + Support + Installation)	**143.434**	**57.170**	**57.314**	**53.865**	**0.000**	**53.865**	**54.509**	**57.260**	**73.710**	**92.944**	**124.912**	**715.118**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C13500 / C-135	**Modification Number / Title:** 8653 / BLOCK 45
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 1 of 1: Block 45

Manufacturer Information

Manufacturer Name: Rockwell Collins	Manufacturer Location: Cedar Rapids, IA
Administrative Leadtime *(in Months)*: 3	Production Leadtime *(in Months)*: 8

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Jan 2017	Jan 2018	Jan 2019	Jan 2020	Jan 2021	Jan 2022	Jan 2023
Delivery Dates	Sep 2017	Sep 2018	Sep 2019	Sep 2020	Sep 2021	Sep 2022	Sep 2023

Installation Information

Method of Implementation: Contractor Facility

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	15 / 8.434	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / 8.434
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	15 / 8.434	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / 8.434

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	15
Out	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	15

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	30 / 11.546	35 / 15.136	17 / 7.565	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	82 / 34.247

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C13500 / C-135	**Modification Number / Title:** 8653 / BLOCK 45
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 1 of 1: Block 45

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
FY 2017	- / -	- / -	21 / 9.346	9 / 4.121	- / -	9 / 4.121	- / -	- / -	- / -	- / -	- / -	30 / 13.467
FY 2018	- / -	- / -	- / -	27 / 12.364	- / -	27 / 12.364	- / -	- / -	- / -	- / -	- / -	27 / 12.364
FY 2019	- / -	- / -	- / -	2 / 0.000	- / -	2 / 0.000	36 / 16.963	- / -	- / -	- / -	- / -	38 / 16.963
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.942	36 / 17.461	- / -	- / -	- / -	38 / 18.403
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.970	36 / 17.938	- / -	- / -	38 / 18.908
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.996	36 / 18.480	- / -	38 / 19.476
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 1.026	36 / 19.027	38 / 20.053
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	54 / 29.557	54 / 29.557
Total	30 / 11.546	35 / 15.136	38 / 16.911	38 / 16.485	- / -	38 / 16.485	38 / 17.905	38 / 18.431	38 / 18.934	38 / 19.506	90 / 48.584	383 / 183.438

Installation Schedule

		FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023					
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	30	9	8	9	9	9	10	9	10	9	10	9	10	9	10	9	10	9	10	9	10	9	10	9	10	9	10	9	10	90	383
Out	25	5	9	8	9	9	9	10	9	10	9	10	9	10	9	10	9	10	9	10	9	10	9	10	9	10	9	10	9	100	383

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C13500 / C-135	**Modification Number / Title:** 9826 / Rudder Position Indicator (RPI)
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	4.903	5.978	6.124	0.000	6.124	6.267	5.270	6.245	3.141	1.000	38.928
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	4.903	5.978	6.124	0.000	6.124	6.267	5.270	6.245	3.141	1.000	38.928
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**4.903**	**5.978**	**6.124**	**0.000**	**6.124**	**6.267**	**5.270**	**6.245**	**3.141**	**1.000**	**38.928**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Rudder Position Indicator (RPI) addresses crew situational awareness for the actual rudder position. Currently, there are no means to determine actual rudder position within the cockpit. The program installs a display on each side of the cockpit showing the actual and commanded rudder position and will visually identify differences to the crew. The RPI program of record is 359 C/KC-135 aircraft and will be funded with APAF. Funding may be used to address Diminishing manufacturing Sources (DMS) issues.

Milestone/Development Status

N/A

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	4.015	4.076	3.889	-	3.889	3.155	2.568	4.192	2.091
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.634	1.268	1.578	-	1.578	2.338	2.053	1.474	0.800
AFR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.254	0.634	0.657	-	0.657	0.774	0.649	0.579	0.250
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**4.903**	**5.978**	**6.124**	**0.000**	**6.124**	**6.267**	**5.270**	**6.245**	**3.141**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C13500 / C-135	**Modification Number / Title:** 9826 / Rudder Position Indicator (RPI)
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: KC-135	**Modification Type:** Capability Improvement	**Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: RPI												
A Kits												
Recurring												
RPI:INSTALL KITS Group A (Active)	- / -	14 / 0.227	30 / 0.486	31 / 0.504	- / -	31 / 0.504	28 / 0.455	33 / 0.536	6 / 0.098	- / -	- / -	142 / 2.306
RPI:INSTALL KITS Group A (Guard)	- / -	15 / 0.244	30 / 0.486	32 / 0.520	- / -	32 / 0.520	34 / 0.553	32 / 0.520	12 / 0.312	- / -	- / -	155 / 2.635
RPI:INSTALL KITS Group A (Reserve)	- / -	6 / 0.098	15 / 0.243	12 / 0.195	- / -	12 / 0.195	13 / 0.211	10 / 0.163	6 / 0.098	- / -	- / -	62 / 1.008
Subtotal: Recurring	*- / -*	*- / 0.569*	*- / 1.215*	*- / 1.219*	*- / -*	*- / 1.219*	*- / 1.219*	*- / 1.219*	*- / 0.508*	*- / -*	*- / -*	*- / 5.949*
B Kits												
Recurring												
RPI:EQUIPMENT Group B (Active)	- / -	14 / 0.365	30 / 0.782	31 / 0.807	- / -	31 / 0.807	28 / 0.728	33 / 0.759	6 / 0.156	- / -	- / -	142 / 3.597
RPI:EQUIPMENT Group B (Guard)	- / -	15 / 0.390	30 / 0.782	32 / 0.833	- / -	32 / 0.833	34 / 0.885	32 / 0.733	12 / 0.312	- / -	- / -	155 / 3.935
RPI:EQUIPMENT Group B (Reserve)	- / -	6 / 0.156	15 / 0.391	12 / 0.312	- / -	12 / 0.312	13 / 0.338	10 / 0.186	6 / 0.156	- / -	- / -	62 / 1.539
Subtotal: Recurring	*- / -*	*- / 0.911*	*- / 1.955*	*- / 1.952*	*- / -*	*- / 1.952*	*- / 1.951*	*- / 1.678*	*- / 0.624*	*- / -*	*- / -*	*- / 9.071*
Subtotal: RPI	*- / -*	*- / 1.480*	*- / 3.170*	*- / 3.171*	*- / -*	*- / 3.171*	*- / 3.170*	*- / 2.897*	*- / 1.132*	*- / -*	*- / -*	*- / 15.020*
Subtotal: Procurement, All Modification Items	*- / -*	*- / 1.480*	*- / 3.170*	*- / 3.171*	*- / -*	*- / 3.171*	*- / 3.170*	*- / 2.897*	*- / 1.132*	*- / -*	*- / -*	*- / 15.020*
Support *(All Modification Items)*												
Change Orders	- / -	- / 0.195	- / 0.200	- / 0.205	- / -	- / 0.205	- / 0.210	- / -	- / 0.500	- / 0.150	- / -	- / 1.460
Data	- / -	- / 0.125	- / 0.100	- / -	- / -	- / -	- / -	- / -	- / 0.500	- / -	- / -	- / 0.725
SIM/TRAINER	- / -	19 / 2.464	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	19 / 2.464
PMA - Contractor Services	- / -	- / 0.250	- / 0.250	- / 0.250	- / -	- / 0.250	- / 0.250	- / 0.250	- / 0.250	- / 0.250	- / 0.150	- / 1.900
PMA - Other Gov't Costs	- / -	- / 0.015	- / 0.375	- / 0.198	- / -	- / 0.198	- / 0.290	- / 0.148	- / 1.500	- / 0.000	- / -	- / 2.526
OTHER GOVT	- / -	- / 0.374	- / 1.883	- / 1.575	- / -	- / 1.575	- / 0.472	- / 0.100	- / 0.488	- / 0.866	- / 0.100	- / 5.858
Subtotal: Support	*- / -*	*19 / 3.423*	*- / 2.808*	*- / 2.228*	*- / -*	*- / 2.228*	*- / 1.222*	*- / 0.498*	*- / 3.238*	*- / 1.266*	*- / 0.250*	*19 / 14.933*
Installation												
Modification Item 1 of 1: RPI	- / -	- / -	- / -	29 / 0.725	- / -	29 / 0.725	75 / 1.875	75 / 1.875	75 / 1.875	75 / 1.875	30 / 0.750	359 / 8.975
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*29 / 0.725*	*- / -*	*29 / 0.725*	*75 / 1.875*	*75 / 1.875*	*75 / 1.875*	*75 / 1.875*	*30 / 0.750*	*359 / 8.975*
Total												
Total Cost (Procurement + Support + Installation)	**-**	**4.903**	**5.978**	**6.124**	**0.000**	**6.124**	**6.267**	**5.270**	**6.245**	**3.141**	**1.000**	**38.928**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C13500 / C-135	**Modification Number / Title:** 9826 / Rudder Position Indicator (RPI)
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 1: RPI

Manufacturer Information

Manufacturer Name: TBD	Manufacturer Location: TBD
Administrative Leadtime *(in Months)*: 2	Production Leadtime *(in Months)*: 2

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Apr 2017	Mar 2018	Dec 2018	Dec 2019	Dec 2020	Dec 2021	
Delivery Dates	Jun 2017	May 2018	Feb 2019	Feb 2020	Feb 2021	Feb 2022	

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	29 / 0.725	- / -	29 / 0.725	6 / 0.150	- / -	- / -	- / -	- / -	35 / 0.875
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	69 / 1.725	6 / 0.150	- / -	- / -	- / -	75 / 1.875
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	69 / 1.725	6 / 0.150	- / -	- / -	75 / 1.875
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	69 / 1.725	6 / 0.150	- / -	75 / 1.875
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	69 / 1.725	6 / 0.150	75 / 1.875
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 0.600	24 / 0.600
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	29 / 0.725	- / -	29 / 0.725	75 / 1.875	75 / 1.875	75 / 1.875	75 / 1.875	30 / 0.750	359 / 8.975

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	0	0	0	0	0	0	0	0	10	19	19	19	19	18	19	19	19	18	19	19	19	18	19	19	19	18	30	359
Out	0	-	-	-	-	0	0	0	0	0	0	0	0	10	19	19	19	19	18	19	19	19	18	19	19	19	18	19	19	67	359

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C13500 / C-135	**Modification Number / Title:** 9827 / KC-135 AERO-I SATCOM replacement
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	0.000	0.000	21.666	0.000	21.666	38.694	39.832	26.216	12.053	26.250	164.711
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	0.000	21.666	0.000	21.666	38.694	39.832	26.216	12.053	26.250	164.711
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**0.000**	**21.666**	**0.000**	**21.666**	**38.694**	**39.832**	**26.216**	**12.053**	**26.250**	**164.711**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This program, P-3A Mod 9827, KC-135 AERO-I SATCOM replacement, is a new start.
Inmarsat's existing third generation satellites (I-3) which provide Aero-I services will no longer be functional after 2023. Aero-I services are used to provide oceanic Controller/Pilot Data Link Communications (CPDLC) to Air Traffic Control and Aircraft Communications Addressing and Reporting System (ACARS) Beyond Line of Sight (BLOS) Command and Control (C2) messages to 618th Tactical Air Control Center (TACC) Global Decision Support System. Program of Record: 359 C/KC-135s and 19 Simulators. Iridium installations planned to be performed by a Contract Field Team. Inmarsat removals planned during aircraft Programmed Depot Maintenance (PDM). This funding request will support potential DMS and obsolescence solutions, to include if optimal, life of type buys or bridge buys limited to the program of record quantity. Funding may be used to address Diminishing Manufacturing Sources (DMS) issues.

Inmarsat equipment removals will occur during PDM starting in FY22 and lasting through FY26. These costs are enumerated under other government cost (OGC) starting in FY22.

Milestone/Development Status

This program began its RDT&E effort in FY18.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	9.423	-	9.423	16.171	16.858	13.019	9.794
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	8.904	-	8.904	16.380	17.094	10.666	2.259
AFR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	3.339	-	3.339	6.143	5.880	2.531	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**0.000**	**0.000**	**21.666**	**0.000**	**21.666**	**38.694**	**39.832**	**26.216**	**12.053**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C13500 / C-135	**Modification Number / Title:** 9827 / KC-135 AERO-I SATCOM replacement
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: KC-135	**Modification Type:** Reliability & Maintainability	**Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Group B												
A Kits												
Recurring												
Group B:INSTALL KITS Group A (Active)	- / -	- / -	- / -	44 / 5.830	- / -	44 / 5.830	44 / 5.947	44 / 6.066	15 / 2.109	- / -	- / -	147 / 19.952
Group B:INSTALL KITS Group A (Guard)	- / -	- / -	- / -	48 / 6.360	- / -	48 / 6.360	48 / 6.487	50 / 6.893	14 / 1.969	- / -	- / -	160 / 21.709
Group B:INSTALL KITS Group A (Reserve)	- / -	- / -	- / -	18 / 2.385	- / -	18 / 2.385	18 / 2.433	16 / 2.205	- / -	- / -	- / -	52 / 7.023
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / 14.575*	*- / -*	*- / 14.575*	*- / 14.867*	*- / 15.164*	*- / 4.078*	*- / -*	*- / -*	*- / 48.684*
B Kits												
Recurring												
Group B:EQUIPMENT Group B (Active)	- / -	- / -	- / -	44 / 2.332	- / -	44 / 2.332	44 / 2.379	44 / 2.426	15 / 0.844	- / -	- / -	147 / 7.981
Group B:EQUIPMENT Group B (Guard)	- / -	- / -	- / -	48 / 2.544	- / -	48 / 2.544	48 / 2.595	50 / 2.757	14 / 0.787	- / -	- / -	160 / 8.683
Group B:EQUIPMENT Group B (Reserve)	- / -	- / -	- / -	18 / 0.954	- / -	18 / 0.954	18 / 0.973	16 / 0.883	- / -	- / -	- / -	52 / 2.810
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / 5.830*	*- / -*	*- / 5.830*	*- / 5.947*	*- / 6.066*	*- / 1.631*	*- / -*	*- / -*	*- / 19.474*
Subtotal: Group B	*- / -*	*- / -*	*- / -*	*- / 20.405*	*- / -*	*- / 20.405*	*- / 20.814*	*- / 21.230*	*- / 5.709*	*- / -*	*- / -*	*- / 68.158*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / -*	*- / 20.405*	*- / -*	*- / 20.405*	*- / 20.814*	*- / 21.230*	*- / 5.709*	*- / -*	*- / -*	*- / 68.158*
Support *(All Modification Items)*												
PMA - Other Gov't Costs	- / -	- / -	- / -	- / 0.013	- / -	- / 0.013	- / 0.013	- / 0.013	- / 0.013	- / -	- / -	- / 0.052
PMA - Contractor Services	- / -	- / -	- / -	- / 0.125	- / -	- / 0.125	- / 0.125	- / 0.125	- / 0.125	- / 0.125	- / 1.875	- / 2.500
OTHER GOVT	- / -	- / -	- / -	- / 0.084	- / -	- / 0.084	- / 0.099	- / 0.307	- / 1.609	- / 7.249	- / 24.300	- / 33.648
Change Orders	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.211	- / 0.213	- / -	- / -	- / 0.424
SUPPORT-EQUIP	- / -	- / -	- / -	- / 0.235	- / -	- / 0.235	- / 0.175	- / 0.128	- / 0.527	- / -	- / -	- / 1.065
Data	- / -	- / -	- / -	- / 0.075	- / -	- / 0.075	- / -	- / -	- / -	- / -	- / 0.075	- / 0.150
SIM/TRAINER	- / -	- / -	- / -	5 / 0.729	- / -	5 / 0.729	5 / 0.743	5 / 0.758	4 / 0.619	- / -	- / -	19 / 2.849
Subtotal: Support	*- / -*	*- / -*	*- / -*	*5 / 1.261*	*- / -*	*5 / 1.261*	*5 / 1.155*	*5 / 1.542*	*4 / 3.106*	*- / 7.374*	*- / 26.250*	*19 / 40.688*
Installation												
Modification Item 1 of 1: Group B	- / -	- / -	- / -	- / -	- / -	- / -	110 / 16.725	110 / 17.060	110 / 17.401	29 / 4.679	- / -	359 / 55.865
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*110 / 16.725*	*110 / 17.060*	*110 / 17.401*	*29 / 4.679*	*- / -*	*359 / 55.865*
Total												
Total Cost (Procurement + Support + Installation)	**-**	**0.000**	**0.000**	**21.666**	**0.000**	**21.666**	**38.694**	**39.832**	**26.216**	**12.053**	**26.250**	**164.711**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C13500 / C-135	**Modification Number / Title:** 9827 / KC-135 AERO-I SATCOM replacement

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 1: Group B

Manufacturer Information

Manufacturer Name: TBD

Manufacturer Location: TBD

Administrative Leadtime *(in Months)*: 6

Production Leadtime *(in Months)*: 6

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates			Apr 2019	Apr 2020	Apr 2021	Apr 2022	
Delivery Dates			Oct 2019	Oct 2020	Oct 2021	Oct 2022	

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	110 / 16.725	- / -	- / -	- / -	- / -	110 / 16.725
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	110 / 17.060	- / -	- / -	- / -	110 / 17.060
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	110 / 17.401	- / -	- / -	110 / 17.401
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	29 / 4.679	- / -	29 / 4.679
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	110 / 16.725	110 / 17.060	110 / 17.401	29 / 4.679	- / -	359 / 55.865

Installation Schedule

		FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023					
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	0	-	-	-	-	-	-	-	-	-	-	-	-	11	33	33	33	28	27	28	27	28	27	28	27	28	1	-	-	0	359
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	11	33	33	33	28	27	28	27	28	27	28	27	28	1	-	-	0	359

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C13500 / C-135	**Modification Number / Title:** 9828 / Real Time in the Cockpit (RTIC)
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	-	-	26.200	0.000	26.200	23.000	0.000	0.000	0.000	-	49.200
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	-	26.200	0.000	26.200	23.000	0.000	0.000	0.000	-	49.200
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**-**	**26.200**	**0.000**	**26.200**	**23.000**	**0.000**	**0.000**	**0.000**	**-**	**49.200**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This program, P-3A Mod 9828, Real Time in the Cockpit (RTIC), is a new start.
"Real Time in the Cockpit (RTIC) is designed to provide real time information to the KC-135 pilot/co-pilot with regards to battlespace, situational and threat awareness. The RTIC program will provide protected, classified data connectivity via machine-to-machine (M2M) technology enabling the KC-135 to interoperate with global and theater operations, intelligence, and Tactical Data Networks (TDNs) to provide the aircrews the information needed to reduce impacts of enemy and blue-on-blue threats and increase KC-135 combat support effectiveness, mission safety, and enhanced situational awareness (SA). The modification includes displays to the cockpit, ARC-210, SADL & Link-16 Modems, RTIC Airborne Executive Processor (AEP), and the ability to integrate on-board/off-board inputs for threat warning (e.g. RWR, multiple data networks, countermeasures, etc). The requirement document governing this effort is the Air National Guard/Air Force Reserve Corps (ANG/AFRC) RTIC Capabilities Description Document (COD) Requirements Correlation Table and the Air Mobility Command (AMC) approved KC-135 RTIC Milestone (MS) B Requirements Traceability Matrix (RTM) from the using commands into system performance requirements that can be measured and verified.

This funding ensures the active duty component can flow with the NGB/AFRC NGREA funded production starting in FY19 and going through FY23.

This program will enter Post Milestone C.

Milestone/Development Status

Program is for Active Duty only. This will be integrated via NGREA funding and does not require development.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	26.200	0.000	26.200	23.000	0.000	0.000	0.000
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	0.000	-	0.000	-	-	-	-
AFR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	0.000	-	0.000	-	-	-	-
Total:	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C13500 / C-135	**Modification Number / Title:** 9828 / Real Time in the Cockpit (RTIC)
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Secondary Distribution	Total Obligation Authority	-	-	26.200	0.000	26.200	23.000	0.000	0.000	0.000

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	P-1 Line Item Number / Title: C13500 / C-135	Modification Number / Title: 9828 / Real Time in the Cockpit (RTIC)
ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:	
Models of Systems Affected: KC-135	Modification Type: Capability Improvement	Related RDT&E PEs:

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 2: A Kit												
A Kits												
Recurring												
A Kit:INSTALL KITS Group A (Active)	- / -	- / -	- / -	26 / 3.323	- / -	26 / 3.323	23 / 2.939	- / -	- / -	- / -	- / -	49 / 6.262
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / 3.323*	*- / -*	*- / 3.323*	*- / 2.939*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 6.262*
Subtotal: A Kit	*- / -*	*- / -*	*- / -*	*- / 3.323*	*- / -*	*- / 3.323*	*- / 2.939*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 6.262*
Modification Item 2 of 2: B Kit												
B Kits												
Recurring												
B Kit:EQUIPMENT Group B (Active)	- / -	- / -	- / -	26 / 19.860	- / -	26 / 19.860	23 / 17.571	- / -	- / -	- / -	- / -	49 / 37.431
B Kit:EQUIPMENT Group B (Guard)	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	0 / 0.000
B Kit:EQUIPMENT Group B (Reserve)	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	0 / 0.000
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / 19.860*	*- / -*	*- / 19.860*	*- / 17.571*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 37.431*
Subtotal: B Kit	*- / -*	*- / -*	*- / -*	*- / 19.860*	*- / -*	*- / 19.860*	*- / 17.571*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 37.431*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / -*	*- / 23.183*	*- / -*	*- / 23.183*	*- / 20.510*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 43.693*
Support *(All Modification Items)*												
SUPPORT-EQUIP	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	0 / 0.000
PMA - Other Gov't Costs	- / -	- / -	- / -	0 / 0.638	- / -	0 / 0.638	0 / 0.385	- / -	- / -	- / -	- / -	0 / 1.023
Data	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	0 / 0.000
Subtotal: Support	*- / -*	*- / -*	*- / -*	*0 / 0.638*	*- / -*	*0 / 0.638*	*0 / 0.385*	*- / -*	*- / -*	*- / -*	*- / -*	*0 / 1.023*
Installation												
Modification Item 2 of 2: B Kit	- / -	- / -	- / -	26 / 2.379	0 / 0.000	26 / 2.379	23 / 2.105	0 / 0.000	0 / 0.000	0 / 0.000	- / -	49 / 4.484
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*26 / 2.379*	*0 / 0.000*	*26 / 2.379*	*23 / 2.105*	*0 / 0.000*	*0 / 0.000*	*0 / 0.000*	*- / -*	*49 / 4.484*
Total												
Total Cost (Procurement + Support + Installation)	**-**	**-**	**-**	**26.200**	**0.000**	**26.200**	**23.000**	**0.000**	**0.000**	**0.000**	**-**	**49.200**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C13500 / C-135	**Modification Number / Title:** 9828 / Real Time in the Cockpit (RTIC)
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 2: A Kit

Manufacturer Information

Manufacturer Name: N/A	Manufacturer Location: N/A
Administrative Leadtime *(in Months)*:	Production Leadtime *(in Months)*:

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation (Organic): Org/Intermediate	**Installation Quantity:** 0

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C13500 / C-135	**Modification Number / Title:** 9828 / Real Time in the Cockpit (RTIC)
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 2 of 2: B Kit

Manufacturer Information

Manufacturer Name: NSN Items	Manufacturer Location: Unk
Administrative Leadtime *(in Months)*: 3	Production Leadtime *(in Months)*: 0

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates			Jan 2019	Jan 2020			
Delivery Dates			Jan 2019	Jan 2020			

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	26 / 2.379	0 / 0.000	26 / 2.379	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	26 / 2.379
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	23 / 2.105	0 / 0.000	0 / 0.000	0 / 0.000	- / -	23 / 2.105
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	26 / 2.379	0 / 0.000	26 / 2.379	23 / 2.105	0 / 0.000	0 / 0.000	0 / 0.000	- / -	49 / 4.484

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	0	0	13	13	5	6	6	6	-	-	-	-	-	-	-	-	-	-	-	-	0	49
Out	0	-	-	-	-	-	-	-	-	0	0	0	13	13	5	6	6	6	-	-	-	-	-	-	-	-	-	-	-	0	49

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** C135BO / OC-135B

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0305145F	Other Related Program Elements: 0305145F

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	0.000	23.091	5.913	0.000	5.913	0.000	0.000	0.000	0.000	0.000	29.004
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	23.091	5.913	0.000	5.913	0.000	0.000	0.000	0.000	0.000	29.004
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**23.091**	**5.913**	**0.000**	**5.913**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**29.004**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The OC-135B aircraft supports the implementation of the United States Government (USG) Open Skies Treaty. Mission equipment on the OC-135B includes wet film optical framing and panoramic cameras. Open Skies Sensors program addresses the requirements in the Presidential Policy Directive-15 (PPD-15), which states," The United States shall begin budgeting no later than Fiscal Year 2014 to upgrade the sensors on the current aircraft by replacing film-based cameras with available electro-optical sensors.(U)" Additionally, current cameras are nearly obsolete, frequently unreliable, hard and increasingly expensive to maintain, and repair parts must be individually manufactured. In addition, the web film manufacturers are discontinuing production of the film stock.

This camera replacement program will replace the wet film cameras with modern, digital cameras. This program will result in modern, digital cameras with higher reliability, maintainability and cost effectiveness. The customer of the imagery will be able to more readily use the imagery products and the equipment service life will be extended significantly.

OC-135B fleet consists of two aircraft. Both aircraft will be modified. One aircraft will be modified during development using RDT&E funds. Each aircraft will receive one A-kit and two B-kits to comply with treaty requirements.

Automatic Dependent Surveillance-Broadcast (ADS-B) out is planned to replace Air Traffic Control (ATC) radar and is mandated to be installed on aircraft using US airspace by 2020.

Funding for this exhibit contained in PE 0305145F

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** C135BO / OC-135B

ID Code (A=Service Ready, B=Not Service Ready): B | **Program Elements for Code B Items:** 0305145F | **Other Related Program Elements:** 0305145F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	1901 / ADS-B (Other)				- / -	- / -	- / 2.991	- / -	- / -	- / -
P-40a***	99999X / Low Cost Modifications (Capability Improvement)				- / -	- / 0.000	- / -	- / 0.000	- / -	- / 0.000
P-3a	1900 / Digital Visual Imaging System (DVIS) (Reliability & Maintainability)		B		- / 0.000	- / 0.000	- / 20.100	- / 5.913	- / 0.000	- / 5.913
P-40	**Total Gross/Weapon System Cost**				**- / -**	**- / 0.000**	**- / 23.091**	**- / 5.913**	**- / 0.000**	**- / 5.913**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	1901 / ADS-B (Other)				- / -	- / -	- / -	- / -	- / -	- / 2.991
P-40a***	99999X / Low Cost Modifications (Capability Improvement)				- / 0.100	- / 0.100	- / 0.100	- / -	- / -	- / 0.300
P-3a	1900 / Digital Visual Imaging System (DVIS) (Reliability & Maintainability)		B		- / 0.000	- / -	- / -	- / -	- / -	- / 26.013
P-40	**Total Gross/Weapon System Cost**				**- / 0.000**	**- / 0.000**	**- / 0.000**	**- / 0.000**	**- / 0.000**	**- / 29.004**

*** Although this is an Exhibit P-40a item, the actual exhibit is not included since all of the required information for this item is already being shown here.

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C135BO / OC-135B	**Modification Number / Title:** 1900 / Digital Visual Imaging System (DVIS)
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	0.000	20.100	5.913	0.000	5.913	0.000	-	-	-	-	26.013
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	0.000	20.100	5.913	0.000	5.913	0.000	-	-	-	-	26.013
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**0.000**	**20.100**	**5.913**	**0.000**	**5.913**	**0.000**	**-**	**-**	**-**	**-**	**26.013**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

FY18 includes procurement new start efforts.

The OC-135B aircraft supports the implementation of the United States Government (USG) Open Skies Treaty. Mission equipment on the OC-135B includes wet film optical framing and panoramic cameras. Open Skies Sensors program addresses the requirements in the Presidential Policy Directive-15 (PPD-15), which states," The United States shall begin budgeting no later than Fiscal Year 2014 to upgrade the sensors on the current aircraft by replacing film-based cameras with available electro-optical sensors.(U)"

This camera replacement program will replace the wet film cameras with modern, digital cameras.

OC-135B fleet consists of two aircraft. Both aircraft will be modified. One aircraft will be modified during development using RDT&E funds. Each aircraft will receive one A-kit and two B-kits to comply with treaty requirements.

Initial product and sustainment support for the DVIS will be provided by the prime contractor. Initial support will end after the second aircraft is modified and the DVIS is determined mission ready. A two year Interim Contract Support (ICS) contract is planned in order to establish a failure history for the DVIS system and lower overall the overall sustainment costs to the government. Following the two year ICS contract, a competitive product and sustainment support contract will be awarded to continue product support of the DVIS.

This funding request will support potential DMS and obsolescence solutions, to include if optimal, life of type buys or bridge buys limited to the program of record quantity.

Milestone/Development Status

Milestone B complete Jan 16, Contract award Feb 16

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C135BO / OC-135B	**Modification Number / Title:** 1900 / Digital Visual Imaging System (DVIS)
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: OC-135B	**Modification Type:** Reliability & Maintainability	**Related RDT&E PEs:** 0305145F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0305145F	1 / 26.368	- / 4.844	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 31.212
Procurement												
Modification Item 1 of 1: DVIS												
A Kits												
Recurring												
DVIS:INSTALL KITS Group A (Active)	- / -	- / -	1 / 1.800	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 1.800
Subtotal: Recurring	- / -	- / -	- / *1.800*	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / *1.800*
B Kits												
Recurring												
DVIS:EQUIPMENT Group B (Active)	- / -	- / -	1 / 10.700	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 10.700
Subtotal: Recurring	- / -	- / -	- / *10.700*	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / *10.700*
Subtotal: DVIS	- / -	- / -	- / *12.500*	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / *12.500*
Subtotal: Procurement, All Modification Items	- / -	- / -	- / *12.500*	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / *12.500*
Support *(All Modification Items)*												
Data	- / -	- / -	- / 0.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.500
SUPPORT-EQUIP	- / -	- / -	- / 0.800	- / 0.461	- / -	- / 0.461	- / -	- / -	- / -	- / -	- / -	- / 1.261
PMA - Contractor Services	- / -	- / -	- / 1.000	- / 1.000	- / -	- / 1.000	- / -	- / -	- / -	- / -	- / -	- / 2.000
PMA - Other Gov't Costs	- / -	- / -	- / 0.600	- / 0.452	- / -	- / 0.452	- / -	- / -	- / -	- / -	- / -	- / 1.052
Type 1 Training	- / -	- / -	- / 0.200	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.200
ICS-Labor	- / -	- / -	- / 2.000	- / 4.000	- / -	- / 4.000	- / -	- / -	- / -	- / -	- / -	- / 6.000
Subtotal: Support	- / -	- / -	- / *5.100*	- / *5.913*	- / -	- / *5.913*	- / -	- / -	- / -	- / -	- / -	- / *11.013*
Installation												
Modification Item 1 of 1: DVIS	- / -	- / -	1 / 2.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 2.500
Subtotal: Installation	- / -	- / -	*1 / 2.500*	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	*1 / 2.500*
Total												
Total Cost (Procurement + Support + Installation)	**0.000**	**0.000**	**20.100**	**5.913**	**0.000**	**5.913**	**0.000**	**-**	**-**	**-**	**-**	**26.013**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** C135BO / OC-135B	**Modification Number / Title:** 1900 / Digital Visual Imaging System (DVIS)

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 1: DVIS

Manufacturer Information

Manufacturer Name: KIHOMAC

Manufacturer Location: Waco, TX. L3 Facility

Administrative Leadtime *(in Months)*: 1

Production Leadtime *(in Months)*: 2

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Jun 2018					
Delivery Dates		Aug 2018					

Installation Information

Method of Implementation: Contractor Facility

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	1 / 2.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 2.500
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	1 / 2.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 2.500

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	1
Out	0	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	1

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** CALL00 / Compass Call Mods

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0207253F

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	23.296	212.657	223.261	49.885	36.400	86.285	44.754	41.954	38.461	39.159	0.000	709.827
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	23.296	212.657	223.261	49.885	36.400	86.285	44.754	41.954	38.461	39.159	0.000	709.827
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**23.296**	**212.657**	**223.261**	**49.885**	**36.400**	**86.285**	**44.754**	**41.954**	**38.461**	**39.159**	**0.000**	**709.827**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The COMPASS CALL capability is the USAF's premier wide-area coverage Airborne Electronic Attack (AEA) Offensive Counter Information (OCI) weapon system. In order to ensure continued tactical effectiveness COMPASS CALL's Prime Mission Equipment (PME) must evolve to keep pace with emerging adversary developments in communications, radar, and sensor technology as well as the use of rapidly advancing commercial communications technology. To meet this challenge the COMPASS CALL program employs an incremental Baseline upgrade acquisition strategy that puts capability into the warfighter's hands as soon as practical and ensures each iteration of the weapon system is effective against the highest priority threats. A new Baseline of capability is fielded approximately every three years. Capabilities inserted into each Baseline are planned in advance, based on war-fighter inputs. Executive Management Reviews are held to review and "lock" Baseline content as production nears. Both modification kit components and integration costs for a given Baseline upgrade are procured in the first fiscal year (FY) of execution and installed the next year. Procurement funds are required for modification kit production (hardware, firmware, and software), installation, certification, and test on a re-host platform in accordance with the Baseline upgrade cyclic schedule.

As of first quarter FY 2018, the COMPASS CALL fleet consists of four (4) Baseline 1 (BL1) aircraft, eight (8) Mid-Baseline 2 (MBL2) aircraft, one (1) MBL2 test aircraft (on loan to the 55th Electronic Combat Group for training), and two (2) aircraft in depot receiving the MBL2 and Avionics Viability Program (AVP, a.k.a. glass cockpit) upgrade modifications. In addition to these aircraft the program also includes one (1) EC-130H Weapon System Trainer (WST, a.k.a. flight deck simulator) and two (2) COMPASS CALL Mission Crew Simulators (CCMCS). With each Baseline efforts focus on reliability and sustainability improvements, obsolescence replacement, weight reduction, simplification of PME operations and maintenance, and electronic attack capability increases.

At the beginning of FY 2017, with the transition to the Baseline 3 (BL3) re-host effort, the program of record added two (2) aircraft (will be known as EC-37B); one was procured in late FY 2017 and one will be procured in FY 2018. These two aircraft will receive upgraded PME from donor EC-130H aircraft. Procurement of the air vehicles for re-host is performed under the Aircraft Procurement, Air Force appropriation, Budget Activity 04, Budget Sub Activity 05 under P-1 Line Item Number: 10CALX/COMPASS CALL.

COMPASS CALL modification efforts include, but are not limited to, the Digital Narrow Band Subsystem; Counter Radar Subsystem; third generation Special Purpose Emitter Array (SPEAR) subsystem; and aircraft and PME retrofits. Baseline upgrades and enhancements will also include necessary support equipment, training device/simulator modifications, test and test support activities (planning, integration). The simulators provide for the training and qualification of aircrew and ground personnel as well as address training obsolescence issues.

FY 2017 included $29.8M of Overseas Contingency Operations (OCO) funding: $1.2M is included in the P-3A for Mod Number 1001 (COMPASS CALL) and $28.6M is included in in the P-3A for Mod Number 1003 (COMPASS CALL Baseline 3).

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** CALL00 / Compass Call Mods	
ID Code (A=Service Ready, B=Not Service Ready): A	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** 0207253F
Line Item MDAP/MAIS Code: N/A		

FY 2018 includes $56.720 of OCO funding: $23.7M is included in the P-3A for Mod Number 1001 (COMPASS CALL) and $33.0M is included in in the P-3A for Mod Number 1003 (COMPASS CALL Baseline 3).

FY 2019 includes $36.4M of OCO funding, included in the P-3A for Mod Number 1001 (COMPASS CALL).

Due to the rapidly changing threat environment encountered in overseas contingency operations, the acquisition program manager has the authority to redirect funding as necessary to meet currently stated and/or emerging Combatant Commander requirements through the integration of Quick Reaction Capability (QRC) kits and other high-priority efforts.

Funding for this exhibit is contained in PE 0207253F.

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** CALL00 / Compass Call Mods

ID Code (A=Service Ready, B=Not Service Ready): A | **Program Elements for Code B Items:** N/A | **Other Related Program Elements:** 0207253F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-3a	1001 / COMPASS CALL (Capability Improvement)		A		- / -	- / 8.496	- / 23.682	- / 0.000	- / 36.400	- / 36.400
P-3a	1003 / COMPASS CALL Baseline 3 (Capability Improvement)		A		- / 23.296	- / 204.161	- / 199.579	- / 49.885	- / 0.000	- / 49.885
P-40	**Total Gross/Weapon System Cost**				**- / 23.296**	**- / 212.657**	**- / 223.261**	**- / 49.885**	**- / 36.400**	**- / 86.285**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-3a	1001 / COMPASS CALL (Capability Improvement)		A		- / 0.000	- / -	- / -	- / -	- / -	- / 68.578
P-3a	1003 / COMPASS CALL Baseline 3 (Capability Improvement)		A		- / 44.754	- / 41.954	- / 38.461	- / 39.159	- / 0.000	- / 641.249
P-40	**Total Gross/Weapon System Cost**				**- / 44.754**	**- / 41.954**	**- / 38.461**	**- / 39.159**	**- / 0.000**	**- / 709.827**

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** CALL00 / Compass Call Mods	**Modification Number / Title:** 1001 / COMPASS CALL
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	8.496	23.682	0.000	36.400	36.400	0.000	-	-	-	-	68.578
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	8.496	23.682	0.000	36.400	36.400	0.000	-	-	-	-	68.578
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**8.496**	**23.682**	**0.000**	**36.400**	**36.400**	**0.000**	**-**	**-**	**-**	**-**	**68.578**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The COMPASS CALL capability is the USAF's premier wide-area coverage Airborne Electronic Attack (AEA) Offensive Counter Information (OCI) weapon system. In order to ensure continued tactical effectiveness COMPASS CALL's Prime Mission Equipment (PME) must evolve to keep pace with emerging adversary developments in communications, radar, and sensor technology as well as the use of rapidly advancing commercial communications technology. To meet this challenge the COMPASS CALL program employs an incremental Baseline upgrade acquisition strategy that puts capability into the warfighter's hands as soon as practical and ensures each iteration of the weapon system is effective against the highest priority threats. A new Baseline of capability is fielded approximately every three years. Capabilities inserted into each Baseline are planned in advance, based on war-fighter inputs. Executive Management Reviews are held to review and "lock" Baseline content as production nears. Both modification kit components and integration costs for a given Baseline upgrade are procured in the first fiscal year (FY) of execution and installed the next year. Procurement funds are required for modification kit production (hardware, firmware, and software), installation, certification, and test on a re-host platform in accordance with the Baseline upgrade cyclic schedule.

As of first quarter FY 2018, the COMPASS CALL fleet consists of four (4) Baseline 1 (BL1) aircraft, eight (8) Mid-Baseline 2 (MBL2) aircraft, one (1) MBL2 test aircraft (on loan to the 55th Electronic Combat Group for training), and two (2) aircraft in depot receiving the MBL2 and Avionics Viability Program (AVP, a.k.a. glass cockpit) upgrade modifications. In addition to these aircraft the program also includes one (1) EC-130H Weapon System Trainer (WST, a.k.a. flight deck simulator) and two (2) COMPASS CALL Mission Crew Simulators (CCMCS). With each Baseline efforts focus on reliability and sustainability improvements, obsolescence replacement, weight reduction, simplification of PME operations and maintenance, and electronic attack capability increases.

COMPASS CALL modification efforts include, but are not limited to, the Digital Narrow Band Subsystem; Counter Radar Subsystem; and the third generation Special Purpose Emitter Array (SPEAR) subsystem. Procurement funds are also used for avionics modifications to meet Communications, Navigation, Surveillance/Air Traffic Management (CNS/ATM) requirements and address avionics obsolescence issues. Similarly, Baseline upgrades and enhancements will include necessary support equipment and training device/simulator modifications. The simulators replicate the fielded aircraft configurations, provide training and qualification of aircrew and ground personnel, and address training and certification obsolescence issues. Equipment includes aircraft and PME retrofits based on the inspection and modification cyclic schedule.

In FY 2017, Mod Number 1001 included $1.2M of the $29.8M total CALL00 Overseas Contingency Operations (OCO) funding. This $1.2M is for Automatic Dependent Surveillance Broadcast (ADS-B)/Mode-5 Identification Friend or Foe (IFF) transponder modifications as well as transmit patch panel capability enhancements allowing for rapid integration of Quick Reaction Capability (QRC) kits. This amount is included in the Other Government line. The remaining $28.6M is included in the P-3A for Mod Number 1003 (COMPASS CALL Baseline 3).

In FY2018, Mod Number 1001 includes $23.682M of the $56.720M total CALL00 OCO funding. This $23.682M is for ADS-B Out and Mode-5 IFF modifications to meet certain civil and NATO mandates (required to continue operations in restricted airspace across the globe as well as tactical employment) for the EC-130H fleet. Upgrades include the installation of ADS-B/Mode-5 transponders on eleven (11) aircraft. It also supports the upgrade of modern communications interception capabilities and avionics to ensure airspace access. This amount is included in the Other Government line. The remaining $33.0M is included in the P-3A for Mod Number 1003 (COMPASS CALL Baseline 3).

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** CALL00 / Compass Call Mods	**Modification Number / Title:** 1001 / COMPASS CALL
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

In FY2019, Mod Number 1001 includes $36.4M of OCO funding for Small Adaptive Bank of Electronic Resources (SABER) integration into the COMPASS CALL mission system to rapidly counter a continuously changing RF environment. SABER will consist of a Software Defined Radio (SDR) with multiple QRC software suites for specific missions and targets.

Due to the rapidly changing threat environment encountered in overseas contingency operations, the acquisition program manager has the authority to redirect funding as necessary to meet currently stated and/or emerging Combatant Commander requirements through the integration of Quick Reaction Capability (QRC) kits and other high-priority efforts.

Funding for this exhibit is contained in PE 0207253F.

Milestone/Development Status

The COMPASS CALL weapon system is continuously improved using a rapid development and acquisition process supporting a Baseline upgrade strategy. User needs and technology opportunities are continuously reviewed and a new PME Baseline is defined approximately every 60 months. By the third quarter of FY 2018, ten (10) PMAI EC-130H COMPASS CALL aircraft will be in the Mid Baseline 2 configuration.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** CALL00 / Compass Call Mods	**Modification Number / Title:** 1001 / COMPASS CALL
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: EC-130H	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0207253F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Baseline 2												
A Kits												
Recurring												
Baseline 2:INSTALL KITS Group A (Active)	- / -	- / -	- / -	- / -	2 / 1.000	2 / 1.000	- / -	- / -	- / -	- / -	- / -	2 / 1.000
Subtotal: Recurring	- / -	- / -	- / -	- / -	- / 1.000	- / 1.000	- / -	- / -	- / -	- / -	- / -	- / 1.000
B Kits												
Recurring												
Baseline 2:EQUIPMENT Group B (Active)	- / -	- / -	- / -	- / -	2 / 4.000	2 / 4.000	- / -	- / -	- / -	- / -	- / -	2 / 4.000
Subtotal: Recurring	- / -	- / -	- / -	- / -	- / 4.000	- / 4.000	- / -	- / -	- / -	- / -	- / -	- / 4.000
Subtotal: Baseline 2	- / -	- / -	- / -	- / -	- / 5.000	- / 5.000	- / -	- / -	- / -	- / -	- / -	- / 5.000
Subtotal: Procurement, All Modification Items	- / -	- / -	- / -	- / -	- / 5.000	- / 5.000	- / -	- / -	- / -	- / -	- / -	- / 5.000
Support *(All Modification Items)*												
GROUP A: TOTAL NONRECURRING	- / -	- / 0.317	- / -	- / -	- / 4.000	- / 4.000	- / -	- / -	- / -	- / -	- / -	- / 4.317
GROUP B: TOTAL NONRECURRING	- / -	- / -	- / -	- / -	- / 24.400	- / 24.400	- / -	- / -	- / -	- / -	- / -	- / 24.400
PMA - Other Gov't Costs	- / -	- / 2.394	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.394
OTHER GOVT	- / -	- / 5.785	- / 23.682	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 29.467
Subtotal: Support	- / -	- / 8.496	- / 23.682	- / -	- / 28.400	- / 28.400	- / -	- / -	- / -	- / -	- / -	- / 60.578
Installation												
Modification Item 1 of 1: Baseline 2	- / -	- / -	- / -	0 / 0.000	2 / 3.000	2 / 3.000	- / -	- / -	- / -	- / -	- / -	2 / 3.000
Subtotal: Installation	- / -	- / -	- / -	0 / -	2 / 3.000	2 / 3.000	- / -	- / -	- / -	- / -	- / -	2 / 3.000
Total												
Total Cost (Procurement + Support + Installation)	**-**	**8.496**	**23.682**	**0.000**	**36.400**	**36.400**	**0.000**	**-**	**-**	**-**	**-**	**68.578**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** CALL00 / Compass Call Mods	**Modification Number / Title:** 1001 / COMPASS CALL
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 1 of 1: Baseline 2

Manufacturer Information

Manufacturer Name: L-3 Technologies	Manufacturer Location: Waco, TX
Administrative Leadtime *(in Months)*: 2	Production Leadtime *(in Months)*: 9

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates			Dec 2018				
Delivery Dates			Sep 2019				

Installation Information

Method of Implementation: Contractor Facility

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	0 / 0.000	2 / 3.000	2 / 3.000	- / -	- / -	- / -	- / -	- / -	2 / 3.000
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	0 / 0.000	2 / 3.000	2 / 3.000	- / -	- / -	- / -	- / -	- / -	2 / 3.000

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	2
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	0	2

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** CALL00 / Compass Call Mods	**Modification Number / Title:** 1003 / COMPASS CALL Baseline 3
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	23.296	204.161	199.579	49.885	0.000	49.885	44.754	41.954	38.461	39.159	0.000	641.249
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	23.296	204.161	199.579	49.885	0.000	49.885	44.754	41.954	38.461	39.159	0.000	641.249
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**23.296**	**204.161**	**199.579**	**49.885**	**0.000**	**49.885**	**44.754**	**41.954**	**38.461**	**39.159**	**0.000**	**641.249**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	50.172	10.228	10.618	-	10.618	10.805	10.999	11.219	11.424	-	115.465
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The COMPASS CALL capability is the USAF's premier wide-area coverage Airborne Electronic Attack (AEA) Offensive Counter Information (OCI) weapon system. In order to ensure continued tactical effectiveness COMPASS CALL's Prime Mission Equipment (PME) must evolve to keep pace with emerging adversary developments in communications, radar, and sensor technology as well as the use of rapidly advancing commercial communications technology. To meet this challenge the COMPASS CALL program employs an incremental Baseline upgrade acquisition strategy that puts capability into the warfighter's hands as soon as practical and ensures each iteration of the weapon system is effective against the highest priority threats. A new Baseline of capability is fielded approximately every three years. Capabilities inserted into each Baseline are planned in advance, based on war-fighter inputs. Executive Management Reviews are held to review and "lock" Baseline content as production nears. Both modification kit components and integration costs for a given Baseline upgrade are procured in the first fiscal year (FY) of execution and installed the next year. Procurement funds are required for modification kit production (hardware, firmware, and software) to include software integration lab components, installation, certification, and test on a re-host platform in accordance with the Baseline upgrade cyclic schedule.

As of first quarter FY 2018, the COMPASS CALL fleet consists of four (4) Baseline 1 (BL1) aircraft, eight (8) Mid-Baseline 2 (MBL2) aircraft, one (1) MBL2 test aircraft (on loan to the 55th Electronic Combat Group for training), and two (2) aircraft in depot receiving the MBL2 and Avionics Viability Program (AVP, a.k.a. glass cockpit) upgrade modifications. In addition to these aircraft the program also includes one (1) EC-130H Weapon System Trainer (WST, a.k.a. flight deck simulator) and two (2) COMPASS CALL Mission Crew Simulators (CCMCS). With each Baseline efforts focus on reliability and sustainability improvements, obsolescence replacement, weight reduction, simplification of PME operations and maintenance, and electronic attack capability increases.

At the beginning of FY 2017, with the transition to the Baseline 3 (BL3) re-host effort, the program of record added two (2) aircraft (will be known as EC-37B); one was procured in late FY 2017 and one will be procured in FY 2018. These two aircraft will receive upgraded PME from donor EC-130H aircraft. Procurement of the air vehicles for re-host is performed under the Aircraft Procurement, Air Force appropriation, Budget Activity 04, Budget Sub Activity 05 under P-1 Line Item Number: 10CALX/COMPASS CALL. Procurement and installation of the BL3 PME modification kits onto those air vehicles is performed under this line item (CALL00/Modification Number 1003).

COMPASS CALL modification efforts include, but are not limited to, the Digital Narrow Band Subsystem; Counter Radar Subsystem; third generation Special Purpose Emitter Array (SPEAR) subsystem; and aircraft and PME retrofits. Baseline upgrades and enhancements will also include necessary support equipment, training device/simulator modifications, test and test support activities (planning, integration). The simulators provide for the training and qualification of aircrew and ground personnel as well as address training obsolescence issues.

In FY 2017, Mod Number 1003 included $28.6M of the $29.8M total CALL00 Overseas Contingency Operations (OCO) funding. This $28.6M of funding is for SPEAR Generation 3 capability and is included in the Group B kit procurement line. The remaining $1.2M is included in the P-3A for Mod Number 1001 (COMPASS CALL).

In FY 2018, Mod Number 1003 includes $33.0M of the $56.720M total CALL00 OCO funding. This funding is for SPEAR Generation 3 capability and is included in the Group B kit procurement line. The remaining $23.682M is included in the P-3A for Mod Number 1001 (COMPASS CALL).

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** CALL00 / Compass Call Mods	**Modification Number / Title:** 1003 / COMPASS CALL Baseline 3
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

The FY 2017 Group B Kit line item includes two (2) Group B kits. The second Group B kit procurement was appropriated in the FY 2017 Request for Additional Appropriation (RAA). This kit is for EC-37B aircraft #2. The Group B amount in FY 2018 is for the SPEAR Generation 3 capability identified in the OCO paragraph above, and in FY2019 is for the third EC-37B aircraft. The third EC-37B air vehicle is funded in the FY 2019, Aircraft Procurement, Air Force appropriation, Budget Activity 04, Budget Sub Activity 05, under P-1 Line Item Number: 10CALX/COMPASS CALL.

Due to the rapidly changing threat environment encountered in overseas contingency operations, the acquisition program manager has the authority to redirect funding as necessary to meet currently stated and/ or emerging Combatant Commander requirements through the integration of Quick Reaction Capability (QRC) kits and other high-priority efforts.

Funding for this exhibit is contained in PE 0207253F.

Milestone/Development Status

The COMPASS CALL weapon system is continuously improved using a rapid development and acquisition process supporting a Baseline upgrade strategy. User needs and technology opportunities are continuously reviewed and a new mission equipment Baseline is defined approximately every 36 months. The COMPASS CALL Baseline 3 configuration will begin initial fielding in 2022.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** CALL00 / Compass Call Mods	**Modification Number / Title:** 1003 / COMPASS CALL Baseline 3
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: EC-37B	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0207253F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Baseline 3												
A Kits												
Recurring												
Baseline 3:INSTALL KITS Group A (Active)	- / -	1 / 19.046	1 / 56.133	1 / 12.326	- / -	1 / 12.326	1 / 12.326	1 / 12.326	1 / 12.326	1 / 12.326	- / -	7 / 136.809
Subtotal: Recurring	*- / -*	*- / 19.046*	*- / 56.133*	*- / 12.326*	*- / -*	*- / 12.326*	*- / 12.326*	*- / 12.326*	*- / 12.326*	*- / 12.326*	*- / -*	*- / 136.809*
B Kits												
Recurring												
Baseline 3:EQUIPMENT Group B (Active)	- / -	2 / 72.007	- / 94.211	1 / 20.869	- / -	1 / 20.869	- / 15.725	- / 12.913	- / 9.407	- / 10.091	- / -	3 / 235.223
Subtotal: Recurring	*- / -*	*- / 72.007*	*- / 94.211*	*- / 20.869*	*- / -*	*- / 20.869*	*- / 15.725*	*- / 12.913*	*- / 9.407*	*- / 10.091*	*- / -*	*- / 235.223*
Subtotal: Baseline 3	*- / -*	*- / 91.053*	*- / 150.344*	*- / 33.195*	*- / -*	*- / 33.195*	*- / 28.051*	*- / 25.239*	*- / 21.733*	*- / 22.417*	*- / -*	*- / 372.032*
Subtotal: Procurement, All Modification Items	*- / -*	*- / 91.053*	*- / 150.344*	*- / 33.195*	*- / -*	*- / 33.195*	*- / 28.051*	*- / 25.239*	*- / 21.733*	*- / 22.417*	*- / -*	*- / 372.032*
Support *(All Modification Items)*												
GROUP A: TOTAL NONRECURRING	- / 10.300	- / 29.737	- / 7.991	- / 6.585	- / -	- / 6.585	- / 6.585	- / 6.585	- / 6.585	- / 6.585	- / -	- / 80.953
GROUP B: TOTAL NONRECURRING	- / 7.716	- / 55.190	- / 29.050	- / 3.553	- / -	- / 3.553	- / 3.553	- / 3.553	- / 3.553	- / 3.553	- / -	- / 109.721
PMA - Other Gov't Costs	- / -	- / -	- / 1.268	- / 1.649	- / -	- / 1.649	- / 1.662	- / 1.674	- / 1.687	- / 1.701	- / -	- / 9.641
SUPPORT-EQUIP	- / 5.280	- / 5.704	- / 5.218	- / 0.200	- / -	- / 0.200	- / 0.200	- / 0.200	- / 0.200	- / 0.200	- / -	- / 17.202
SIM/TRAINER	- / -	0 / 10.994	- / -	- / -	- / -	- / -	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 10.994
Subtotal: Support	*- / 23.296*	*0 / 101.625*	*- / 43.527*	*- / 11.987*	*- / -*	*- / 11.987*	*0 / 12.000*	*0 / 12.012*	*0 / 12.025*	*0 / 12.039*	*- / -*	*0 / 228.511*
Installation												
Modification Item 1 of 1: Baseline 3	- / -	1 / 11.483	1 / 5.708	1 / 4.703	- / -	1 / 4.703	1 / 4.703	1 / 4.703	1 / 4.703	1 / 4.703	- / -	7 / 40.706
Subtotal: Installation	*- / -*	*1 / 11.483*	*1 / 5.708*	*1 / 4.703*	*- / -*	*1 / 4.703*	*1 / 4.703*	*1 / 4.703*	*1 / 4.703*	*1 / 4.703*	*- / -*	*7 / 40.706*
Total												
Total Cost (Procurement + Support + Installation)	**23.296**	**204.161**	**199.579**	**49.885**	**0.000**	**49.885**	**44.754**	**41.954**	**38.461**	**39.159**	**0.000**	**641.249**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** CALL00 / Compass Call Mods	**Modification Number / Title:** 1003 / COMPASS CALL Baseline 3
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 1 of 1: Baseline 3

Manufacturer Information

Manufacturer Name: L-3 Technologies	Manufacturer Location: Greenville, TX
Administrative Leadtime *(in Months)*: 1	Production Leadtime *(in Months)*: 9

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Aug 2017	Feb 2018	Nov 2018	Nov 2019	Nov 2020	Nov 2021	Nov 2022
Delivery Dates	Sep 2017	Sep 2018	Aug 2019	Aug 2020	Aug 2021	Aug 2022	Aug 2023

Installation Information

Method of Implementation: Contractor Facility

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	1 / 11.483	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 11.483
FY 2018	- / -	- / -	1 / 5.708	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 5.708
FY 2019	- / -	- / -	- / -	1 / 4.703	- / -	1 / 4.703	- / -	- / -	- / -	- / -	- / -	1 / 4.703
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	1 / 4.703	- / -	- / -	- / -	- / -	1 / 4.703
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 4.703	- / -	- / -	- / -	1 / 4.703
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 4.703	- / -	- / -	1 / 4.703
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 4.703	- / -	1 / 4.703
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	1 / 11.483	1 / 5.708	1 / 4.703	- / -	1 / 4.703	1 / 4.703	1 / 4.703	1 / 4.703	1 / 4.703	- / -	7 / 40.706

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	1	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	0	7
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	-	-	-	4	7

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** CFIN00 / combat flight inspection (CFIN)

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0401314F	Other Related Program Elements: 0401314F

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	0.000	0.495	0.499	0.000	0.499	0.508	0.000	0.000	0.000	-	1.502
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	0.495	0.499	0.000	0.499	0.508	0.000	0.000	0.000	-	1.502
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**0.495**	**0.499**	**0.000**	**0.499**	**0.508**	**0.000**	**0.000**	**0.000**	**-**	**1.502**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Funds are required to procure and sustain unique military equipment on three FAA owned, Air Force operated, Canadair Challenger flight inspection aircraft to provide the DoD Combat Flight Inspection (CFIN) capability. CFIN is an Air Force combat capability to validate and certify airfield instrument approach and landing equipment, and associated instrument procedures, are safe and meet specifications before all-weather combat flight operations can begin. The CFIN capability is provided by three FAA Canadair Challenger aircraft modified with unique military equipment required for the CFIN mission, including secure anti-jam radios, military Identification Friend or Foe Mode IV and V transponders, and survivability equipment.

Justification:

Where applicable, justification for individual modifications is provided in the P-3A exhibits.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** DARP01 / RC-135

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0305207F	Other Related Program Elements: 0305207F

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	165.715	217.238	201.559	394.532	0.000	394.532	197.673	192.940	196.842	200.419	-	1,766.918
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	165.715	217.238	201.559	394.532	0.000	394.532	197.673	192.940	196.842	200.419	-	1,766.918
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**165.715**	**217.238**	**201.559**	**394.532**	**0.000**	**394.532**	**197.673**	**192.940**	**196.842**	**200.419**	**-**	**1,766.918**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The USAF's Manned Reconnaissance Systems program includes seventeen RC-135V/W RIVET JOINT, three RC-135S COBRA BALL, and two RC-135U COMBAT SENT mission aircraft performing Air Combat Command (ACC) operational missions. The RC-135V/W RIVET JOINT is the majority variant that drives the Baseline integration and modification upgrade strategy for the entire RC-135 fleet. Therefore, a significant amount of the modification budget is directly related to the RIVET JOINT weapon system baseline strategy enhancements which subsequently transfers into the follow-on baseline strategy enhancements for COBRA BALL and COMBAT SENT weapon systems.

RC-135 Viability Assessments in 2008 and 2012 reported that despite the fleet average airframe age (44 years) and accumulated flight hours (38,000) as of the end of FY 2007, the RC-135 should be able to continue to meet the user's needs by performing intended operations through at least 2050. Viability was assessed based on underlying analyses of reliability, maintainability, performance, corrosion, fatigue, architectural stability, safety and availability. The Viability Assessment also summarized that the RC-135 fleet has experienced significant improvements in reliability, maintainability and availability since FY 2001. The Program Manager attributes these improvements directly to the 645th Aeronautical Systems Group (645 AESG) Baseline integration and modification upgrade strategy and synergies gained with long standing relationships with the RC-135 industry partners.

FY19 procurement funding will concentrate on two major efforts: (1) completing the conversion of the RIVET JOINT aircraft from a Baseline 10 to Baseline 12 configuration and; (2) converting three KC-135R aircraft into WC-135R aircraft. First, with regards to RIVET JOINT, a total of nine aircraft are projected to become Baseline 12 configured. During this same period, the COBRA BALL and the COMBAT SENT aircraft will concentrate on completing the conversion from the Baseline 5 to the Baseline 6 configuration (COBRA BALL and COMBAT SENT Baseline 5 configurations most closely align with the RIVET JOINT Baseline 11 configuration). Additionally, with regards to the WC-135, procurement funding will procure and install modification kits to convert three KC-135Rs into WC-135Rs as well as procure and install sensors for the WC-135Rs. In addition to the aforementioned aircraft modifications, FY19 procurement will ensure integration and fielding of the RC-135 ground systems to include RIVET JOINT Mission Trainer (RJMT), Ground Data Processing Systems (GDPS), Distributed Mission Shelters (DMS), Mission Crew Training Systems (MCTS), Airborne Capabilities Extension System (ACES) and Operational Flight Trainers (OFT).

The ground systems are upgraded to remain consistent with the fielded aircraft configurations to allow for training and qualification of the aircrew and maintenance personnel assigned, plus verification and certification of software builds that are continuously modified to address the dynamic mission requirements of these weapons systems. The RIVET JOINT Baseline integration efforts of Baselines 12 and 13 starting in early FY19, address the 2012 RC-135 Multi-Attribute Utility Assessment (MUA) that detailed operational effectiveness, cost and program analyses of the alternative weapon system configurations. The MUA determined that retaining and sustaining the RC-135V/W airframe offers the highest assessed weapons system utility (measured as a benefit of cost-to-risk ratio) over the 25-year assessment period.

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** DARP01 / RC-135	
ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0305207F	**Other Related Program Elements:** 0305207F
Line Item MDAP/MAIS Code: N/A		

Following the approval of the Memorandum of Agreement between the National Security Agency/Central Security Service (NSA/CSS) Directorate of Operations and the United States Air Force on 26 September 2016, an additional $3.0M was provided in FY18 through the Future Years Defense Plan due to previous shortfalls in funding. Due to an administrative error, the additional $3.0M in FY18 is listed under Program Element 0305207F as U-2 Modifications.

Due to the changing threat and rapidly evolving electromagnetic combat environment encountered during the RC-135's prolonged commitment to Overseas Contingency Operations (OCO), the acquisition program manager has the authority to redirect funding as necessary to meet current states and emerging Combatant Commander and/or Intelligence Community requirements to better meet the war fighting objectives.

Funding for this exhibit is contained in PE 0305207F.

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft

P-1 Line Item Number / Title:
DARP01 / RC-135

ID Code (A=Service Ready, B=Not Service Ready): B | **Program Elements for Code B Items:** 0305207F | **Other Related Program Elements:** 0305207F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-3a	2504 / COBRA BALL (Capability Improvement)		A		- / 6.144	- / 6.325	- / 6.959	- / 6.776	- / 0.000	- / 6.776
P-3a	4263 / RIVET JOINT (Capability Improvement)		A		- / 152.938	- / 190.185	- / 187.807	- / 169.664	- / 0.000	- / 169.664
P-3a	4265 / COMBAT SENT (Capability Improvement)		A		- / 6.633	- / 20.728	- / 6.793	- / 9.802	- / 0.000	- / 9.802
P-3a	4266 / CONSTANT PHOENIX (Capability Improvement)		B		- / -	- / -	- / -	- / 208.290	- / 0.000	- / 208.290
P-40	**Total Gross/Weapon System Cost**				**- / 165.715**	**- / 217.238**	**- / 201.559**	**- / 394.532**	**- / 0.000**	**- / 394.532**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-3a	2504 / COBRA BALL (Capability Improvement)		A		- / 6.898	- / 7.022	- / 7.148	- / 7.277	- / -	- / 54.549
P-3a	4263 / RIVET JOINT (Capability Improvement)		A		- / 172.853	- / 175.952	- / 179.503	- / 182.767	- / -	- / 1,411.669
P-3a	4265 / COMBAT SENT (Capability Improvement)		A		- / 9.985	- / 9.966	- / 10.191	- / 10.375	- / -	- / 84.473
P-3a	4266 / CONSTANT PHOENIX (Capability Improvement)		B		- / 7.937	- / -	- / -	- / -	- / -	- / 216.227
P-40	**Total Gross/Weapon System Cost**				**- / 197.673**	**- / 192.940**	**- / 196.842**	**- / 200.419**	**- / -**	**- / 1,766.918**

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** DARP01 / RC-135	**Modification Number / Title:** 2504 / COBRA BALL
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	6.144	6.325	6.959	6.776	0.000	6.776	6.898	7.022	7.148	7.277	-	54.549
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	6.144	6.325	6.959	6.776	0.000	6.776	6.898	7.022	7.148	7.277	-	54.549
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**6.144**	**6.325**	**6.959**	**6.776**	**0.000**	**6.776**	**6.898**	**7.022**	**7.148**	**7.277**	**-**	**54.549**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

FY19 procurement funding acquires and installs various upgrade and enhancement modifications for the three RC-135S COBRA BALL aircraft performing Air Combat Command (ACC) directed operational missions. Due to the rapidly changing global threat environment, the acquisition program manager has the authority to redirect funding as necessary to meet current stated and emerging Combatant Command (CCMD) and Intelligence Community (IC) requirements.

The Operational Requirements Document (ORD '99) addresses airframe, sensor, navigation, communications, data link, and processing requirements necessary to keep the RC-135 fleet viable through 2050. A Program Management Directive (PMD) provides direction to the 645th Aeronautical Systems Group (645 AESG) for the acquisition, and sustainment of the weapons system, associated mission support equipment, and processing, exploitation and dissemination tools.

The RC-135S COBRA BALL program--Defense Airborne Reconnaissance Program (DARP)/Manned Reconnaissance Systems is managed as an incremental baseline upgrade acquisition strategy in order to maintain collection parity with evolving and emerging adversarial weapons systems utilized by state and non-state actors. The 645 AESG Baseline upgrade strategy requires purchase agreements for long-lead items that take approximately 10 to 12 months from contract award to delivery. Items required for integration in a given Baseline upgrade are contracted for purchase in the first year of the procurement funding cycle and are acquired and installed in the subsequent year. This acquisition strategy has been successful in maintaining critical combat capability in the Intelligence, Surveillance, Reconnaissance (ISR) arena over the last 50 years.

FY19 procurement funding efforts will concentrate on the initiatives pertaining to completing the COBRA BALL Baseline 5.1 enhancements. Baseline 5.1 subsystem upgrades consist of, but are not limited to: Wideband Global Satellite (WGS) reachback connectivity, aircraft intercom system replacement, improved operator interface and reporting tools, and the integration of the RIVET JOINT Baseline 11 communications intelligence (COMINT) suite.

Funding for this exhibit contained in PE 0305207F.

Milestone/Development Status

FY 2019 procurement funding associated with the acquisition, integration, fielding and logistical support efforts for the Baseline 5 configuration upgrades and enhancements of the three RC-135S COBRA BALL aircraft, sensor systems, and associated ground support system are attributed to the development efforts initiated in FY 2016 and FY 2017 research & development funding initiatives. These initiatives formed the basis for the RC-135S COBRA BALL fleet modification strategy.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** DARP01 / RC-135	**Modification Number / Title:** 2504 / COBRA BALL
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: RC-135S, TC-135W	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0305207F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Baseline 5												
A Kits												
Recurring												
Baseline 5:INSTALL KITS Group A (Active)	1 / 1.063	1 / 1.086	1 / 1.417	1 / 1.111	- / -	1 / 1.111	1 / 1.131	1 / 1.151	1 / 1.172	1 / 1.193	- / -	8 / 9.324
Subtotal: Recurring	*- / 1.063*	*- / 1.086*	*- / 1.417*	*- / 1.111*	*- / -*	*- / 1.111*	*- / 1.131*	*- / 1.151*	*- / 1.172*	*- / 1.193*	*- / -*	*- / 9.324*
B Kits												
Recurring												
Baseline 5:EQUIPMENT Group B (Active)	1 / 1.558	1 / 1.623	1 / 1.834	1 / 1.867	- / -	1 / 1.867	1 / 1.901	1 / 1.995	1 / 2.030	1 / 2.067	- / -	8 / 14.875
Subtotal: Recurring	*- / 1.558*	*- / 1.623*	*- / 1.834*	*- / 1.867*	*- / -*	*- / 1.867*	*- / 1.901*	*- / 1.995*	*- / 2.030*	*- / 2.067*	*- / -*	*- / 14.875*
Subtotal: Baseline 5	*- / 2.621*	*- / 2.709*	*- / 3.251*	*- / 2.978*	*- / -*	*- / 2.978*	*- / 3.032*	*- / 3.146*	*- / 3.202*	*- / 3.260*	*- / -*	*- / 24.199*
Subtotal: Procurement, All Modification Items	*- / 2.621*	*- / 2.709*	*- / 3.251*	*- / 2.978*	*- / -*	*- / 2.978*	*- / 3.032*	*- / 3.146*	*- / 3.202*	*- / 3.260*	*- / -*	*- / 24.199*
Installation												
Modification Item 1 of 1: Baseline 5	1 / 3.523	1 / 3.616	1 / 3.708	1 / 3.798	0 / 0.000	1 / 3.798	1 / 3.866	1 / 3.876	1 / 3.946	1 / 4.017	- / -	8 / 30.350
Subtotal: Installation	*1 / 3.523*	*1 / 3.616*	*1 / 3.708*	*1 / 3.798*	*0 / -*	*1 / 3.798*	*1 / 3.866*	*1 / 3.876*	*1 / 3.946*	*1 / 4.017*	*- / -*	*8 / 30.350*
Total												
Total Cost (Procurement + Support + Installation)	**6.144**	**6.325**	**6.959**	**6.776**	**0.000**	**6.776**	**6.898**	**7.022**	**7.148**	**7.277**	**-**	**54.549**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** DARP01 / RC-135	**Modification Number / Title:** 2504 / COBRA BALL
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 1 of 1: Baseline 5

Manufacturer Information

Manufacturer Name: L-3 Technologies	Manufacturer Location: Greenville, TX
Administrative Leadtime *(in Months)*: 2	Production Leadtime *(in Months)*: 6

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Dec 2016	Dec 2017	Dec 2018	Dec 2019	Dec 2020	Dec 2021	Dec 2022
Delivery Dates	Jun 2017	Jun 2018	Jun 2019	Jun 2020	Jun 2021	Jun 2022	Jun 2023

Installation Information

Method of Implementation: Contractor Facility

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	1 / 3.523	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	1 / 3.523
FY 2017	- / -	1 / 3.616	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 3.616
FY 2018	- / -	- / -	1 / 3.708	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 3.708
FY 2019	- / -	- / -	- / -	1 / 3.798	- / -	1 / 3.798	- / -	- / -	- / -	- / -	- / -	1 / 3.798
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	1 / 3.866	- / -	- / -	- / -	- / -	1 / 3.866
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 3.876	- / -	- / -	- / -	1 / 3.876
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 3.946	- / -	- / -	1 / 3.946
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 4.017	- / -	1 / 4.017
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	1 / 3.523	1 / 3.616	1 / 3.708	1 / 3.798	0 / 0.000	1 / 3.798	1 / 3.866	1 / 3.876	1 / 3.946	1 / 4.017	- / -	8 / 30.350

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	1	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	0	8
Out	1	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	0	8

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** DARP01 / RC-135	**Modification Number / Title:** 4263 / RIVET JOINT
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	152.938	190.185	187.807	169.664	0.000	169.664	172.853	175.952	179.503	182.767	-	1,411.669
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	152.938	190.185	187.807	169.664	0.000	169.664	172.853	175.952	179.503	182.767	-	1,411.669
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**152.938**	**190.185**	**187.807**	**169.664**	**0.000**	**169.664**	**172.853**	**175.952**	**179.503**	**182.767**	**-**	**1,411.669**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	47.734	49.396	49.927	-	49.927	50.848	51.785	52.717	53.666	-	356.073
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

FY19 procurement funding acquires and installs various upgrade and enhancement modifications for the seventeen RC-135V/W RIVET JOINT aircraft performing Air Combat Command (ACC) directed operational missions. Due to the rapidly changing global threat environment, the acquisition program manager has the authority to redirect funding as necessary to meet current stated and emerging Combatant Command (CCMD) and Intelligence Community (IC) requirements.

The Operational Requirements Document (ORD '99) addresses airframe, sensor, navigation, communications, data link, and processing requirements necessary to keep the RC-135 fleet viable through 2050. A Program Management Directive (PMD) provides direction to the 645th Aeronautical Systems Group (645 AESG) for the acquisition, and sustainment of the weapons system, associated mission support equipment, and processing, exploitation and dissemination tools.

The RC-135V/W RIVET JOINT program Defense Airborne Reconnaissance Program (DARP)/Manned Reconnaissance Systems is managed as an incremental baseline upgrade acquisition strategy in order to maintain collection parity with an evolving threat environment. The 645 AESG Baseline upgrade strategy requires purchase agreements for long lead items that take approximately 10 to 12 months from contract award to delivery. Items required for integration in a given Baseline upgrade are contracted and purchased in the first year of the procurement funding cycle and are acquired and installed in the next year. This acquisition strategy has been successful in maintaining critical combat capability in the Intelligence, Surveillance and Reconnaissance (ISR) arena over the last 50 years.

FY19 procurement funding will concentrate on sustainment of the fielded RIVET JOINT Baseline 12 configured aircraft. Baseline 12 subsystem upgrades consist of, but are not limited to: precision multi-angle direction finding communications intelligence (DF COMINT) capability, electronic intelligence (ELINT) recorder expansion, precision ELINT digital signals intelligence (SIGINT) system (DSS) integration, wideband global satellite (WGS) enhanced integration, increased near real time (NRT) national tactical integration, improved operator interface and reporting tools, enhancing capabilities in dense signal environments (search-thru-interference improvement), re-double copy channel count, increased digital signal exploitation, increased digital signal recorder bandwidth, Specific Emitter ID improvement, enhanced spatial processing/exploitation, Air Force Distributed Common Ground System (AF-DCGS) interoperability, operator work station 3-D map projection, enhanced operator reporting management tools, modernized communications security Communications Security (COMSEC) protocols, continued CNS/ATM compliant cockpit avionics enhancements to include addressing any obsolescence issues, new steerable beam antenna, weight reduction phase 4, enhanced weather radar, digitally enhanced electronic flight instrument system (EFIS).

Funding for this exhibit contained in PE 0305207F.

Milestone/Development Status

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** DARP01 / RC-135	**Modification Number / Title:** 4263 / RIVET JOINT
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

FY 19 procurement funding associated with acquisition, integration, fielding and logistical support efforts for the Baseline 12 configuration upgrades / enhancements of the RC-135V/W RIVET JOINT aircraft, sensor systems, and associated ground support system are attributed to the development efforts initiated in FY 16 and FY 17 research & development funding intitatives. These initiatives formed the basis for the RC-135V/W RIVET JOINT fleet modification strategy.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** DARP01 / RC-135	**Modification Number / Title:** 4263 / RIVET JOINT
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: RC-135V, RC-135W, TC-135W	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0305207F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Baseline 12												
A Kits												
Recurring												
Baseline 12:INSTALL KITS Group A (Active)	4 / 12.160	4 / 12.315	4 / 12.881	4 / 13.339	- / -	4 / 13.339	4 / 13.579	4 / 13.823	4 / 14.072	4 / 14.350	- / -	32 / 106.519
Subtotal: Recurring	*- / 12.160*	*- / 12.315*	*- / 12.881*	*- / 13.339*	*- / -*	*- / 13.339*	*- / 13.579*	*- / 13.823*	*- / 14.072*	*- / 14.350*	*- / -*	*- / 106.519*
B Kits												
Recurring												
Baseline 12:EQUIPMENT Group B (Active)	4 / 93.263	4 / 129.059	4 / 125.828	4 / 106.890	- / -	4 / 106.890	4 / 108.949	4 / 110.896	4 / 113.276	4 / 115.253	- / -	32 / 903.414
Subtotal: Recurring	*- / 93.263*	*- / 129.059*	*- / 125.828*	*- / 106.890*	*- / -*	*- / 106.890*	*- / 108.949*	*- / 110.896*	*- / 113.276*	*- / 115.253*	*- / -*	*- / 903.414*
Subtotal: Baseline 12	*- / 105.423*	*- / 141.374*	*- / 138.709*	*- / 120.229*	*- / -*	*- / 120.229*	*- / 122.528*	*- / 124.719*	*- / 127.348*	*- / 129.603*	*- / -*	*- / 1,009.933*
Subtotal: Procurement, All Modification Items	*- / 105.423*	*- / 141.374*	*- / 138.709*	*- / 120.229*	*- / -*	*- / 120.229*	*- / 122.528*	*- / 124.719*	*- / 127.348*	*- / 129.603*	*- / -*	*- / 1,009.933*
Support *(All Modification Items)*												
PMA - Other Gov't Costs	- / 1.314	- / 1.315	- / 1.316	- / 1.317	- / -	- / 1.317	- / 1.341	- / 1.366	- / 1.390	- / 1.415	- / -	- / 10.774
Subtotal: Support	*- / 1.314*	*- / 1.315*	*- / 1.316*	*- / 1.317*	*- / -*	*- / 1.317*	*- / 1.341*	*- / 1.366*	*- / 1.390*	*- / 1.415*	*- / -*	*- / 10.774*
Installation												
Modification Item 1 of 1: Baseline 12	4 / 46.201	4 / 47.496	4 / 47.782	4 / 48.118	0 / 0.000	4 / 48.118	4 / 48.984	4 / 49.867	4 / 50.765	4 / 51.749	- / -	32 / 390.962
Subtotal: Installation	*4 / 46.201*	*4 / 47.496*	*4 / 47.782*	*4 / 48.118*	*0 / -*	*4 / 48.118*	*4 / 48.984*	*4 / 49.867*	*4 / 50.765*	*4 / 51.749*	*- / -*	*32 / 390.962*
Total												
Total Cost (Procurement + Support + Installation)	**152.938**	**190.185**	**187.807**	**169.664**	**0.000**	**169.664**	**172.853**	**175.952**	**179.503**	**182.767**	**-**	**1,411.669**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** DARP01 / RC-135	**Modification Number / Title:** 4263 / RIVET JOINT
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 1 of 1: Baseline 12

Manufacturer Information

Manufacturer Name: L-3 Technologies	Manufacturer Location: Greenville, TX
Administrative Leadtime *(in Months)*: 2	Production Leadtime *(in Months)*: 9

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Dec 2016	Dec 2017	Dec 2018	Dec 2019	Dec 2020	Dec 2021	Dec 2022
Delivery Dates	Sep 2017	Sep 2018	Sep 2019	Sep 2020	Sep 2021	Sep 2022	Sep 2023

Installation Information

Method of Implementation: Contractor Facility

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	4 / 46.201	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	4 / 46.201
FY 2017	- / -	4 / 47.496	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 47.496
FY 2018	- / -	- / -	4 / 47.782	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 47.782
FY 2019	- / -	- / -	- / -	4 / 48.118	- / -	4 / 48.118	- / -	- / -	- / -	- / -	- / -	4 / 48.118
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	4 / 48.984	- / -	- / -	- / -	- / -	4 / 48.984
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 49.867	- / -	- / -	- / -	4 / 49.867
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 50.765	- / -	- / -	4 / 50.765
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 51.749	- / -	4 / 51.749
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	4 / 46.201	4 / 47.496	4 / 47.782	4 / 48.118	0 / 0.000	4 / 48.118	4 / 48.984	4 / 49.867	4 / 50.765	4 / 51.749	- / -	32 / 390.962

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	32
Out	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	32

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** DARP01 / RC-135	**Modification Number / Title:** 4265 / COMBAT SENT
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	6.633	20.728	6.793	9.802	0.000	9.802	9.985	9.966	10.191	10.375	-	84.473
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	6.633	20.728	6.793	9.802	0.000	9.802	9.985	9.966	10.191	10.375	-	84.473
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**6.633**	**20.728**	**6.793**	**9.802**	**0.000**	**9.802**	**9.985**	**9.966**	**10.191**	**10.375**	**-**	**84.473**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

FY19 procurement funding acquires and installs various upgrade and enhancement modifications for the two RC-135U COMBAT SENT aircraft performing Air Combat Command (ACC) directed operational missions. Due to the rapidly changing global threat environment and technological advances of our adversaries, the acquisition program manager has the authority to redirect funding as necessary to meet current stated and emerging Combatant Command (CCMD) and Intelligence Community (IC) requirements.

The Operational Requirements Document (ORD '99) addresses airframe, sensor, navigation, communications, data link, and processing requirements necessary to keep the RC-135 fleet viable through 2050. A Program Management Directive (PMD) provides direction to the 645th Aeronautical Systems Group (645 AESG) for the acquisition, and sustainment of the weapons system, associated mission support equipment, and processing, exploitation and dissemination tools.

The RC-135U COMBAT SENT program Defense Airborne Reconnaissance Program (DARP)/Manned Reconnaissance Systems) is managed as an incremental baseline upgrade acquisition strategy in order to maintain collection parity with evolving threat environment. The 645 AESG Baseline upgrade strategy requires purchase agreements for long-lead items that take approximately 12 months from contract award to delivery. Items required for integration in a given Baseline upgrade are contracted for purchase in the first year of the procurement funding cycle and are acquired and installed in the next year. This acquisition strategy has been successful in maintaining critical combat capability in the ISR arena over the last 50 years.

FY19 procurement funding efforts will concentrate on efforts pertaining to sustainment and completion of the COMBAT SENT Baseline 5 enhancements. Baseline 5 subsystem upgrades consist of, but are not limited to: Wideband Global Satellite (WGS) reachback connectivity, liquid cooling system, improved operator interface and reporting tools, integration of the RIVET JOINT Baseline 11 Communication Intelligence (COMINT) suite, and enhancing capabilities in dense signal environments.

Funding for this exhibit contained in PE 0305207F.

*Due to a database error in FY18, $3M in 3010 funds has been allocated to the U-2 program. These dollars will be adjusted in year of execution. For FY19-FY22, the funds will be re-programmed to COMBAT SENT.

Milestone/Development Status

FY19 procurement funding associated with the acquisition, integration, fielding and logistical support efforts for the Baseline 5 configuration upgrades/enhancements of the two RC-135U COMBAT SENT aircraft, sensor systems, and associated ground support system are attributed to the development efforts initiated in FY 2016 and FY 2017 research & development funding initiatives. These initiatives formed the basis for the RC-135U COMBAT SENT fleet modification strategy.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** DARP01 / RC-135	**Modification Number / Title:** 4265 / COMBAT SENT
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: RC-135U	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0305207F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Baseline 5 (2)												
A Kits												
Recurring												
Baseline 5:INSTALL KITS Group A (Active)	1 / 1.062	1 / 1.058	1 / 1.027	1 / 1.103	- / -	1 / 1.103	1 / 1.121	1 / 1.141	1 / 1.161	1 / 1.182	- / -	8 / 8.855
Subtotal: Recurring	*- / 1.062*	*- / 1.058*	*- / 1.027*	*- / 1.103*	*- / -*	*- / 1.103*	*- / 1.121*	*- / 1.141*	*- / 1.161*	*- / 1.182*	*- / -*	*- / 8.855*
B Kits												
Recurring												
Baseline 5:EQUIPMENT Group B (Active)	1 / 1.690	1 / 15.818	1 / 2.081	1 / 2.042	- / -	1 / 2.042	1 / 2.081	1 / 2.118	1 / 2.156	1 / 2.195	- / -	8 / 30.181
Subtotal: Recurring	*- / 1.690*	*- / 15.818*	*- / 2.081*	*- / 2.042*	*- / -*	*- / 2.042*	*- / 2.081*	*- / 2.118*	*- / 2.156*	*- / 2.195*	*- / -*	*- / 30.181*
Subtotal: Baseline 5 (2)	*- / 2.752*	*- / 16.876*	*- / 3.108*	*- / 3.145*	*- / -*	*- / 3.145*	*- / 3.202*	*- / 3.259*	*- / 3.317*	*- / 3.377*	*- / -*	*- / 39.036*
Subtotal: Procurement, All Modification Items	*- / 2.752*	*- / 16.876*	*- / 3.108*	*- / 3.145*	*- / -*	*- / 3.145*	*- / 3.202*	*- / 3.259*	*- / 3.317*	*- / 3.377*	*- / -*	*- / 39.036*
Installation												
Modification Item 1 of 1: Baseline 5 (2)	1 / 3.881	1 / 3.852	1 / 3.685	1 / 6.657	0 / 0.000	1 / 6.657	1 / 6.783	1 / 6.707	1 / 6.874	1 / 6.998	- / -	8 / 45.437
Subtotal: Installation	*1 / 3.881*	*1 / 3.852*	*1 / 3.685*	*1 / 6.657*	*0 / -*	*1 / 6.657*	*1 / 6.783*	*1 / 6.707*	*1 / 6.874*	*1 / 6.998*	*- / -*	*8 / 45.437*
Total												
Total Cost (Procurement + Support + Installation)	**6.633**	**20.728**	**6.793**	**9.802**	**0.000**	**9.802**	**9.985**	**9.966**	**10.191**	**10.375**	**-**	**84.473**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** DARP01 / RC-135	**Modification Number / Title:** 4265 / COMBAT SENT
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 1 of 1: Baseline 5 (2)

Manufacturer Information

Manufacturer Name: L-3 Technologies	Manufacturer Location: Greenville, TX
Administrative Leadtime *(in Months)*: 2	Production Leadtime *(in Months)*: 6

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Dec 2016	Dec 2017	Dec 2018	Dec 2019	Dec 2020	Dec 2021	Dec 2022
Delivery Dates	Jun 2017	Jun 2018	Jun 2019	Jun 2020	Jun 2021	Jun 2022	Jun 2023

Installation Information

Method of Implementation: Contractor Facility

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	1 / 3.881	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	1 / 3.881
FY 2017	- / -	1 / 3.852	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 3.852
FY 2018	- / -	- / -	1 / 3.685	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 3.685
FY 2019	- / -	- / -	- / -	1 / 6.657	- / -	1 / 6.657	- / -	- / -	- / -	- / -	- / -	1 / 6.657
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	1 / 6.783	- / -	- / -	- / -	- / -	1 / 6.783
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 6.707	- / -	- / -	- / -	1 / 6.707
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 6.874	- / -	- / -	1 / 6.874
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 6.998	- / -	1 / 6.998
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	1 / 3.881	1 / 3.852	1 / 3.685	1 / 6.657	0 / 0.000	1 / 6.657	1 / 6.783	1 / 6.707	1 / 6.874	1 / 6.998	- / -	8 / 45.437

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	1	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	0	8
Out	1	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	0	8

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** DARP01 / RC-135	**Modification Number / Title:** 4266 / CONSTANT PHOENIX
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	-	-	208.290	0.000	208.290	7.937	-	-	-	-	216.227
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	-	208.290	0.000	208.290	7.937	-	-	-	-	216.227
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**-**	**208.290**	**0.000**	**208.290**	**7.937**	**-**	**-**	**-**	**-**	**216.227**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This program, P-3A Mod 4266, CONSTANT PHOENIX, is a new start.
The WC-135 CONSTANT PHOENIX atmospheric collection aircraft supports national level consumers by collecting particulate and gaseous effluents and debris from accessible regions of the atmosphere in support of the Limited Nuclear Test Ban Treaty of 1963. The platform is based on a modified C-135 aircraft, the modifications are primarily related to its on-board atmospheric collection suite, which allows the mission crew to detect radioactive "clouds" in real time. The WC-135 is currently the only aircraft in the inventory conducting air-sampling operations. The aircraft is operated by Air Combat Command (ACC).

FY19 procurement funding will procure and install modification kits to convert three (3) KC-135R aerial refueling tanker aircraft into WC-135R CONSTANT PHOENIX aircraft. In addition, procurement funding will procure and install mission sensors onto the WC-135R. These conversions are needed to address airframe viability concerns associated with the aging WC-135W fleet. Analysis determined that it was more cost-effective to convert KC-135R aircraft into WC-135Rs than to modify existing WC-135W aircraft to be on par with the rest of the C-135 variants (i.e. RC-135 and KC-135). Due to the rapidly changing global threat environment, the acquisition program manager has the authority to redirect funding as necessary to meet current stated and emerging Combatant Command (CCMD) and Intelligence Community (IC) requirements.

The Operational Requirements Document (ORD 1999) addresses airframe, sensor, navigation, and communications requirements necessary to keep the WC-135 fleet viable through 2050. A Program Management Directive (PMD) provides direction to the 645th Aeronautical Systems Group (645 AESG) to perform acquisition and sustainment activities for the weapon system, associated mission support equipment, and Processing, Exploitation and Dissemination (PED) tools.

The WC-135 CONSTANT PHOENIX program--Defense Airborne Reconnaissance Program (DARP)/Manned Reconnaissance Systems is managed via an incremental baseline upgrade acquisition strategy in order to sustain aircraft viability. The 645 AESG baseline upgrade strategy requires purchase agreements for long-lead items that take approximately 10 to 12 months from contract award to delivery. Items required for integration in a given baseline upgrade are contracted for purchase in the first year of the procurement funding cycle and are acquired and installed in the subsequent year. This acquisition strategy has been successful in maintaining critical combat capability in the Intelligence, Surveillance, and Reconnaissance (ISR) arena over the last 50 years.

Funding for this exhibit contained in PE 0305207F.

Milestone/Development Status

Milestone/Development Status

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** DARP01 / RC-135	**Modification Number / Title:** 4266 / CONSTANT PHOENIX
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

FY19 procurement funding will procure and install modification kits to convert three (3) KC-135R aerial refueling tanker aircraft into WC-135R CONSTANT PHOENIX aircraft. In addition, procurement funding will procure and install mission sensors onto the WC-135R.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** DARP01 / RC-135	**Modification Number / Title:** 4266 / CONSTANT PHOENIX
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: WC-135R	**Modification Type:** Capability Improvement	**Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 2: COMMON: Mission Sensor System												
B Kits												
Recurring												
COMMON: Mission Sensor System:EQUIPMENT Group B (Active)	- / -	- / -	- / -	2 / 8.232	- / -	2 / 8.232	1 / 7.937	- / -	- / -	- / -	- / -	3 / 16.169
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / 8.232*	*- / -*	*- / 8.232*	*- / 7.937*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 16.169*
Subtotal: COMMON: Mission Sensor System	*- / -*	*- / -*	*- / -*	*- / 8.232*	*- / -*	*- / 8.232*	*- / 7.937*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 16.169*
Modification Item 2 of 2: KC-135R Modification Kit												
A Kits												
Recurring												
KC-135R Modification Kit:INSTALL KITS Group A (Active)	- / -	- / -	- / -	3 / 111.000	- / -	3 / 111.000	- / -	- / -	- / -	- / -	- / -	3 / 111.000
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / 111.000*	*- / -*	*- / 111.000*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 111.000*
Subtotal: KC-135R Modification Kit	*- / -*	*- / -*	*- / -*	*- / 111.000*	*- / -*	*- / 111.000*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 111.000*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / -*	*- / 119.232*	*- / -*	*- / 119.232*	*- / 7.937*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 127.169*
Installation												
Modification Item 2 of 2: KC-135R Modification Kit	- / -	- / -	- / -	3 / 89.058	- / -	3 / 89.058	0 / 0.000	- / -	- / -	- / -	- / -	3 / 89.058
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*3 / 89.058*	*- / -*	*3 / 89.058*	*0 / -*	*- / -*	*- / -*	*- / -*	*- / -*	*3 / 89.058*
Total												
Total Cost (Procurement + Support + Installation)	**-**	**-**	**-**	**208.290**	**0.000**	**208.290**	**7.937**	**-**	**-**	**-**	**-**	**216.227**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** DARP01 / RC-135	**Modification Number / Title:** 4266 / CONSTANT PHOENIX

ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**

Modification Item 1 of 2: COMMON: Mission Sensor System

Manufacturer Information

Manufacturer Name: N/A	Manufacturer Location: N/A
Administrative Leadtime *(in Months)*:	Production Leadtime *(in Months)*:

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation (Organic): Org/Intermediate	**Installation Quantity:** 0

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** DARP01 / RC-135	**Modification Number / Title:** 4266 / CONSTANT PHOENIX

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 2 of 2: KC-135R Modification Kit

Manufacturer Information

Manufacturer Name: L-3 Technologies

Manufacturer Location: Greenville, TX

Administrative Leadtime *(in Months)*: 2

Production Leadtime *(in Months)*: 6

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates			Dec 2018				
Delivery Dates			Jun 2019				

Installation Information

Method of Implementation: Contractor Facility

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	3 / 89.058	- / -	3 / 89.058	0 / 0.000	- / -	- / -	- / -	- / -	3 / 89.058
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	3 / 89.058	- / -	3 / 89.058	0 / 0.000	- / -	- / -	- / -	- / -	3 / 89.058

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	3
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	0	3

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** E00300 / E-3

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0207417F	Other Related Program Elements: 0207417F

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	98.497	89.386	189.772	133.906	0.000	133.906	177.192	158.995	197.514	243.758	173.120	1,462.140
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	98.497	89.386	189.772	133.906	0.000	133.906	177.192	158.995	197.514	243.758	173.120	1,462.140
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**98.497**	**89.386**	**189.772**	**133.906**	**0.000**	**133.906**	**177.192**	**158.995**	**197.514**	**243.758**	**173.120**	**1,462.140**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Totals include funding for Airborne Warning and Control System (AWACS) Upgrades. This line item funds modifications and may be used to address Diminishing Manufacturing Sources (DMS) issues for the overall E-3 weapon system to include aircraft, simulators, and training devices. The four-engine E-3 is a modified Boeing 707 airframe which carries airborne radar and provides all-altitude air surveillance, threat warning, and control of theater air forces.

Life of Type (LoT) buy to procure parts for retrofit of Production jets.

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** E00300 / E-3

ID Code (A=Service Ready, B=Not Service Ready): B | **Program Elements for Code B Items:** 0207417F | **Other Related Program Elements:** 0207417F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	50002 / Communications Networking Upgrade (CNU) (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / -
P-40a***	50002T / AWACS ADS-B Acceleration (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / -
P-40a***	7225 / NEXT GENERATION IDENTIFICATION FRIEND OR FOE (IFF) (Capability Improvement)				- / 54.580	- / 2.253	- / -	- / -	- / -	- / -
P-40a***	8662 / AETC MTD UPGRADES-FIELD TRAINING DETACHMENTS (Capability Improvement)				- / 6.311	- / 0.687	- / 0.701	- / 0.707	- / -	- / 0.707
P-40a***	9707 / RM&A Mod (Reliability & Maintainability)				- / 20.931	- / 0.668	- / 0.620	- / 0.075	- / -	- / 0.075
P-40a***	9708 / Virtual Warfare Center (Capability Improvement)				- / -	- / -	- / 9.439	- / -	- / -	- / -
P-40a***	9716 / VERTICAL STABILIZER AND RUDDER (Reliability & Maintainability)				- / 2.617	- / 0.287	- / 0.135	- / 0.018	- / -	- / 0.018
P-40a***	9719 / Combat ID Diminishing Manufacturing Sources (Capability Improvement)				- / -	- / -	- / -	- / 0.000	- / -	- / 0.000
P-40a***	99999XA / LOW COST MOD - AIRFRAME (Reliability & Maintainability)				- / 0.350	- / 0.100	- / 0.131	- / 1.999	- / -	- / 1.999
P-40a***	99999XB / LOW COST MOD - AVIONICS & MISSION SYSTEMS (Reliability & Maintainability)				- / 0.350	- / 0.100	- / 0.131	- / 1.999	- / -	- / 1.999
P-3a	9709 / E-3 DRAGON (Capability Improvement)		B		- / 0.000	- / 44.730	- / 142.785	- / 88.701	- / 0.000	- / 88.701
P-3a	9717 / ELECTRONIC PROTECTION (Capability Improvement)		B		- / 0.000	- / 0.000	- / 0.000	- / 17.041	- / 0.000	- / 17.041
P-3a	9718 / IP-enabled Capability (IPEC) (Capability Improvement)		A		- / 13.358	- / 40.561	- / 35.830	- / 23.366	- / 0.000	- / 23.366
P-40	**Total Gross/Weapon System Cost**				**- / 98.497**	**- / 89.386**	**- / 189.772**	**- / 133.906**	**- / 0.000**	**- / 133.906**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	50002 / Communications Networking Upgrade (CNU) (Capability Improvement)				- / 17.561	- / 6.049	- / 0.000	- / 34.180	- / 0.000	- / 57.790
P-40a***	50002T / AWACS ADS-B Acceleration (Capability Improvement)				- / 2.035	- / 1.059	- / 0.000	- / 0.000	- / -	- / 3.094
P-40a***	7225 / NEXT GENERATION IDENTIFICATION FRIEND OR FOE (IFF) (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / 56.833
P-40a***	8662 / AETC MTD UPGRADES-FIELD TRAINING DETACHMENTS (Capability Improvement)				- / 0.719	- / 0.732	- / 0.748	- / 0.762	- / -	- / 11.367
P-40a***	9707 / RM&A Mod (Reliability & Maintainability)				- / 0.310	- / 0.320	- / -	- / -	- / -	- / 22.924
P-40a***	9708 / Virtual Warfare Center (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / 9.439
P-40a***	9716 / VERTICAL STABILIZER AND RUDDER (Reliability & Maintainability)				- / -	- / -	- / -	- / -	- / -	- / 3.057
P-40a***	9719 / Combat ID Diminishing Manufacturing Sources (Capability Improvement)				- / 7.937	- / 22.709	- / 36.988	- / 37.660	- / -	- / 105.294

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** E00300 / E-3

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0207417F	Other Related Program Elements: 0207417F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-40a***	99999XA / LOW COST MOD - AIRFRAME (Reliability & Maintainability)				- / 1.999	- / 1.999	- / 1.999	- / 1.999	- / -	- / 10.576
P-40a***	99999XB / LOW COST MOD - AVIONICS & MISSION SYSTEMS (Reliability & Maintainability)				- / 1.999	- / 1.999	- / 1.999	- / 1.999	- / -	- / 10.576
P-3a	9709 / E-3 DRAGON (Capability Improvement)		B		- / 124.864	- / 109.868	- / 142.237	- / 163.529	- / 173.120	- / 989.834
P-3a	9717 / ELECTRONIC PROTECTION (Capability Improvement)		B		- / 14.768	- / 7.527	- / 10.548	- / 3.629	- / -	- / 53.513
P-3a	9718 / IP-enabled Capability (IPEC) (Capability Improvement)		A		- / 5.000	- / 6.733	- / 2.995	- / -	- / -	- / 127.843
P-40	**Total Gross/Weapon System Cost**				**- / 177.192**	**- / 158.995**	**- / 197.514**	**- / 243.758**	**- / 173.120**	**- / 1,462.140**

*** Although this is an Exhibit P-40a item, the actual exhibit is not included since all of the required information for this item is already being shown here.

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** E00300 / E-3	**Modification Number / Title:** 9709 / E-3 DRAGON
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	44.730	142.785	88.701	0.000	88.701	124.864	109.868	142.237	163.529	173.120	989.834
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	44.730	142.785	88.701	0.000	88.701	124.864	109.868	142.237	163.529	173.120	989.834
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**44.730**	**142.785**	**88.701**	**0.000**	**88.701**	**124.864**	**109.868**	**142.237**	**163.529**	**173.120**	**989.834**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	11.828	11.651	10.448	-	10.448	10.631	-	-	-	-	44.558
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

E-3 DMS Replacement of Avionics for Global Operations and Navigation (DRAGON): DRAGON completes the Federal Aviation Administration (FAA), International Civil Aviation Organization (ICAO), and European Organization for the Safety of Air Navigation (EUROCONTROL) air traffic control mandated safety of flight capabilities. This program will provide the E-3 fleet with the flight instruments and other avionics for the Required Navigation Performance (RNP), and the surveillance and communication capabilities necessary to maintain continued critical unrestricted access to global airspace. Non-compliance will result in airspace restrictions and denials that will impact AWACS ability to support worldwide responses to situations requiring immediate on-scene BM/C2. DRAGON replaces the existing Diminishing Manufacturing Sources (DMS) Global Positioning System (GPS) Integrated Navigation System (GINS) with a modern Flight Management System (FMS) that will accommodate new capabilities including Mode 5 Identification Friend or Foe (IFF) and Joint Mission Planning System (JMPS). Also included as part of the modification is the addition of data link communications, voice and data link digital radios, and improved visual displays. Additionally, the acquisition of DRAGON flight simulators also contains DMS efforts which include removal of end-of-life software/hardware within simulator systems and move to a modular, common open system architecture that is sustainable and cyber resilient. The simulator effort also implements requirements and standards defined under the Simulator Common Architecture Requirements and Standards (SCARS) initiative. Emphasis on employment of Commercial-Off-The-Shelf (COTS) avionics is expected to lower cost, reduce the tech refresh cycle, and enhance life cycle management. DRAGON will provide development of support and test equipment needed for DRAGON production; DRAGON will also provide initial DMS and Initial Contractor Support (ICS) needed to support the first US developmental test aircraft (i.e., D-1) prior to the contract award of the DRAGON production effort. The Engineering and Manufacturing Development (EMD) phase of DRAGON is being executed as a Cooperative Program between the US and NATO, Production will be executed as a USAF only effort.

Milestone/Development Status

FY11-FY19 RDT&E funds support integration of the DRAGON requirements/flight simulator. EMD Contract Award: November 2011 Milestone B Approval: November 2011 Milestone C Approval: July 2017 LRIP Contract Award: 29 June 17

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** E00300 / E-3	**Modification Number / Title:** 9709 / E-3 DRAGON
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: E-3B, E-3C	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0207417F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0207417F	- / 362.596	- / 17.327	- / 9.225	- / 1.981	- / -	- / 1.981	- / -	- / -	- / -	- / -	- / -	- / 391.129
Procurement												
Modification Item 1 of 1: DRAGON												
A Kits												
Recurring												
DRAGON:INSTALL KITS Group A (Active)	- / -	1 / 7.390	4 / 16.898	4 / 15.318	- / -	4 / 15.318	4 / 17.296	4 / 15.971	4 / 15.054	4 / 15.819	5 / 21.103	30 / 124.849
Subtotal: Recurring	*- / -*	*- / 7.390*	*- / 16.898*	*- / 15.318*	*- / -*	*- / 15.318*	*- / 17.296*	*- / 15.971*	*- / 15.054*	*- / 15.819*	*- / 21.103*	*- / 124.849*
B Kits												
Recurring												
DRAGON:EQUIPMENT Group B (Active)	- / -	1 / 17.970	4 / 40.296	4 / 40.700	- / -	4 / 40.700	4 / 41.517	4 / 40.137	4 / 38.111	4 / 39.159	5 / 50.656	30 / 308.546
Subtotal: Recurring	*- / -*	*- / 17.970*	*- / 40.296*	*- / 40.700*	*- / -*	*- / 40.700*	*- / 41.517*	*- / 40.137*	*- / 38.111*	*- / 39.159*	*- / 50.656*	*- / 308.546*
Subtotal: DRAGON	*- / -*	*- / 25.360*	*- / 57.194*	*- / 56.018*	*- / -*	*- / 56.018*	*- / 58.813*	*- / 56.108*	*- / 53.165*	*- / 54.978*	*- / 71.759*	*- / 433.395*
Subtotal: Procurement, All Modification Items	*- / -*	*- / 25.360*	*- / 57.194*	*- / 56.018*	*- / -*	*- / 56.018*	*- / 58.813*	*- / 56.108*	*- / 53.165*	*- / 54.978*	*- / 71.759*	*- / 433.395*
Support *(All Modification Items)*												
GROUP A: TOTAL NONRECURRING	- / -	- / -	- / 61.843	- / -	- / -	- / -	- / 14.426	- / 11.869	- / 31.152	- / 56.849	- / -	- / 176.139
GROUP B: TOTAL NONRECURRING	- / -	- / 13.487	- / 4.181	- / 0.323	- / -	- / 0.323	- / 0.330	- / 0.337	- / 0.000	- / 0.000	- / -	- / 18.658
Change Orders	- / -	- / 2.068	- / 10.261	- / 12.993	- / -	- / 12.993	- / 14.070	- / 13.988	- / 13.122	- / 12.717	- / 23.327	- / 102.546
Data	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / 0.000
SIM/TRAINER	- / -	- / -	- / -	- / 0.100	- / -	- / 0.100	- / 0.200	- / 0.300	- / 4.600	- / -	- / -	- / 5.200
ICS-Labor	- / -	- / -	- / -	- / 0.289	- / -	- / 0.289	- / 0.887	- / 1.504	- / 1.966	- / 2.021	- / 3.882	- / 10.549
PMA - Contractor Services	- / -	- / 1.588	- / 3.420	- / 3.488	- / -	- / 3.488	- / 3.558	- / 3.629	- / 3.702	- / 3.776	- / 11.788	- / 34.949
OTHER GOVT	- / -	- / 1.089	- / 1.265	- / 0.955	- / -	- / 0.955	- / 0.974	- / 0.994	- / 1.013	- / 1.034	- / 2.401	- / 9.725
PMA - Other Gov't Costs	- / -	- / 1.138	- / 1.982	- / 2.206	- / -	- / 2.206	- / 2.703	- / 2.408	- / 2.647	- / 2.636	- / 4.236	- / 19.956
Subtotal: Support	*- / -*	*- / 19.370*	*- / 82.952*	*- / 20.354*	*- / -*	*- / 20.354*	*- / 37.148*	*- / 35.029*	*- / 58.202*	*- / 79.033*	*- / 45.634*	*- / 377.722*
Installation												
Modification Item 1 of 1: DRAGON	- / -	- / -	0 / 2.639	1 / 12.329	- / -	1 / 12.329	3 / 28.903	2 / 18.731	5 / 30.870	4 / 29.518	15 / 55.727	30 / 178.717
Subtotal: Installation	*- / -*	*- / -*	*- / 2.639*	*1 / 12.329*	*- / -*	*1 / 12.329*	*3 / 28.903*	*2 / 18.731*	*5 / 30.870*	*4 / 29.518*	*15 / 55.727*	*30 / 178.717*
Total												
Total Cost (Procurement + Support + Installation)	**0.000**	**44.730**	**142.785**	**88.701**	**0.000**	**88.701**	**124.864**	**109.868**	**142.237**	**163.529**	**173.120**	**989.834**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** E00300 / E-3	**Modification Number / Title:** 9709 / E-3 DRAGON
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 1: DRAGON

Manufacturer Information

Manufacturer Name: Boeing	Manufacturer Location: Oklahoma City
Administrative Leadtime *(in Months)*: 3	Production Leadtime *(in Months)*: 18

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Jan 2017	Jan 2018	Jan 2020	Jan 2021	Jan 2021	Jan 2022	
Delivery Dates	Jul 2018	Jul 2019	Jul 2021	Jul 2022	Jul 2022	Jul 2023	

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	0 / 2.639	1 / 12.329	- / -	1 / 12.329	- / -	- / -	- / -	- / -	- / -	1 / 14.968
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	3 / 28.903	1 / 9.365	- / -	- / -	- / -	4 / 38.268
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 9.366	3 / 18.522	- / -	- / -	4 / 27.888
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 12.348	2 / 14.759	- / -	4 / 27.107
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 14.759	2 / 13.828	4 / 28.587
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 27.795	4 / 27.795
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 14.104	2 / 14.104
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 0.000	7 / 0.000
Total	- / -	- / -	0 / 2.639	1 / 12.329	- / -	1 / 12.329	3 / 28.903	2 / 18.731	5 / 30.870	4 / 29.518	15 / 55.727	30 / 178.717

Installation Schedule

		FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023					
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	0	-	-	-	-	-	-	-	-	-	-	1	-	-	1	1	1	1	-	-	2	1	1	1	2	1	1	1	-	15	30
Out	0	-	-	-	-	-	-	-	-	-	-	1	-	-	1	1	1	1	-	-	2	1	1	1	2	1	1	1	-	15	30

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** E00300 / E-3	**Modification Number / Title:** 9717 / ELECTRONIC PROTECTION
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	0.000	0.000	17.041	0.000	17.041	14.768	7.527	10.548	3.629	-	53.513
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	0.000	0.000	17.041	0.000	17.041	14.768	7.527	10.548	3.629	-	53.513
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**0.000**	**0.000**	**17.041**	**0.000**	**17.041**	**14.768**	**7.527**	**10.548**	**3.629**	**-**	**53.513**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	0.562	1.981	1.076	-	1.076	-	-	-	-	-	3.619
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Electronic Protection (EP) will provide improved radar processing in a specific flight environment to meet a classified requirement. Processing will initially address radar modes comprising 90% of operational AWACS radar usage. EP will install an adjunct processor that works in parallel with the current Radar System Improvement Program (RSIP) system. The EP-processed radar picture will appear on the battle manager's display in place of the current RSIP output when the EP radar modes are selected.

The EP program plans for a life of type Commercial Off-The-Shelf (COTS) equipment buy to address the short life-cycles in high tech components starting in late FY18. The program will buy COTS equipment including initial spares. Equipment non-recurring Group B includes efforts for Capital Equipment Replacement, Active Diminishing Manufacturing Sources (DMS), and Software Releases. This modification has related RDT&E funding in PE 0207417F

Milestone/Development Status

EMD risk reduction activities funded initially by C2ISR began in FY13 and continue under EP into FY14. Milestone B completion date: July 2015. EMD contract award date: September 2015.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** E00300 / E-3	**Modification Number / Title:** 9717 / ELECTRONIC PROTECTION
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: E-3	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0207417F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0207417F	- / 60.923	- / 16.792	- / 30.895	- / 0.000	- / -	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / 108.610
Procurement												
Modification Item 1 of 1: Electronic Protection												
A Kits												
Recurring												
Electronic Protection:INSTALL KITS Group A (Active)	- / -	- / -	- / -	1 / 1.000	- / -	1 / 1.000	- / -	- / -	- / -	- / -	- / -	1 / 1.000
Subtotal: Recurring	- / -	- / -	- / -	- / *1.000*	- / -	- / *1.000*	- / -	- / -	- / -	- / -	- / -	- / *1.000*
B Kits												
Recurring												
Electronic Protection:EQUIPMENT Group B (Active)	- / -	- / -	- / -	1 / 1.000	- / -	1 / 1.000	- / -	- / -	- / -	- / -	- / -	1 / 1.000
Subtotal: Recurring	- / -	- / -	- / -	- / *1.000*	- / -	- / *1.000*	- / -	- / -	- / -	- / -	- / -	- / *1.000*
Subtotal: Electronic Protection	- / -	- / -	- / -	- / *2.000*	- / -	- / *2.000*	- / -	- / -	- / -	- / -	- / -	- / *2.000*
Subtotal: Procurement, All Modification Items	- / -	- / -	- / -	- / *2.000*	- / -	- / *2.000*	- / -	- / -	- / -	- / -	- / -	- / *2.000*
Support *(All Modification Items)*												
GROUP B: TOTAL NONRECURRING	- / -	- / -	- / -	- / 15.041	- / -	- / 15.041	- / 14.768	- / 7.527	- / 10.548	- / 3.629	- / -	- / 51.513
Subtotal: Support	- / -	- / -	- / -	- / *15.041*	- / -	- / *15.041*	- / *14.768*	- / *7.527*	- / *10.548*	- / *3.629*	- / -	- / *51.513*
Installation												
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total												
Total Cost (Procurement + Support + Installation)	**0.000**	**0.000**	**0.000**	**17.041**	**0.000**	**17.041**	**14.768**	**7.527**	**10.548**	**3.629**	**-**	**53.513**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** E00300 / E-3	**Modification Number / Title:** 9717 / ELECTRONIC PROTECTION

ID Code (A=Service Ready, B=Not Service Ready) : B | **MDAP/MAIS Code:**

Modification Item 1 of 1: Electronic Protection

Manufacturer Information

Manufacturer Name: TBD | Manufacturer Location: TBD

Administrative Leadtime *(in Months)*: 3 | Production Leadtime *(in Months)*: 8

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates			Jan 2019	Jan 2020	Jan 2021		
Delivery Dates			Sep 2019	Sep 2020	Sep 2021		

Installation Information

Method of Implementation (Organic): Org/Intermediate | **Installation Quantity:** 1

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** E00300 / E-3	**Modification Number / Title:** 9718 / IP-enabled Capability (IPEC)
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	13.358	40.561	35.830	23.366	0.000	23.366	5.000	6.733	2.995	-	-	127.843
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	13.358	40.561	35.830	23.366	0.000	23.366	5.000	6.733	2.995	-	-	127.843
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**13.358**	**40.561**	**35.830**	**23.366**	**0.000**	**23.366**	**5.000**	**6.733**	**2.995**	**-**	**-**	**127.843**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	3.204	-	3.204	-	-	-	-	-	3.204
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Internet Protocol Enabled Communication (IPEC): IPEC will provide the E-3G aircraft with a medium-bandwidth IP communications capability to connect to the Global Information Grid (GIG) and will support net-centric operations/warfare. IPEC will provide a reliable IP-Enabled communication capability to support a shortened digitized kill-chain of time-sensitive targets. The modification will provide a permanent INMARSAT-based IP-Enabled communications package supporting warfighter identified requirements for increased bandwidth SIPRNET and multi-domain networks. This modification has related RDT&E funding in PE 0207417F.

Milestone/Development Status

EMD risk reduction activities funded by C2ISR began 1Q FY15. EMD contract awarded 21 September 2015.

Limited Production Contract awarded 4 November 2016. UCA awarded 30 November 2017; Full Rate award projected 30 June 2018.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** E00300 / E-3	**Modification Number / Title:** 9718 / IP-enabled Capability (IPEC)
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: E-3	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0207417F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0207417F	- / 38.227	- / 18.738	- / 29.801	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 86.766
Procurement												
Modification Item 1 of 1: IP Enabled Communication												
A Kits												
Recurring												
IP Enabled Communication:INSTALL KITS Group A (Active)	6 / 4.457	7 / 7.109	10 / 11.050	7 / 3.480	- / -	7 / 3.480	- / -	- / -	- / -	- / -	- / -	30 / 26.096
Subtotal: Recurring	*- / 4.457*	*- / 7.109*	*- / 11.050*	*- / 3.480*	*- / -*	*- / 3.480*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 26.096*
B Kits												
Recurring												
IP Enabled Communication:EQUIPMENT Group B (Active)	6 / 7.510	7 / 15.287	10 / 19.166	7 / 10.090	- / -	7 / 10.090	- / 3.589	- / 5.321	- / 2.995	- / -	- / -	30 / 63.958
Subtotal: Recurring	*- / 7.510*	*- / 15.287*	*- / 19.166*	*- / 10.090*	*- / -*	*- / 10.090*	*- / 3.589*	*- / 5.321*	*- / 2.995*	*- / -*	*- / -*	*- / 63.958*
Subtotal: IP Enabled Communication	*- / 11.967*	*- / 22.396*	*- / 30.216*	*- / 13.570*	*- / -*	*- / 13.570*	*- / 3.589*	*- / 5.321*	*- / 2.995*	*- / -*	*- / -*	*- / 90.054*
Subtotal: Procurement, All Modification Items	*- / 11.967*	*- / 22.396*	*- / 30.216*	*- / 13.570*	*- / -*	*- / 13.570*	*- / 3.589*	*- / 5.321*	*- / 2.995*	*- / -*	*- / -*	*- / 90.054*
Support *(All Modification Items)*												
GROUP A: TOTAL NONRECURRING	- / 0.000	- / 14.787	- / -	- / 0.000	- / -	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / 14.787
GROUP B: TOTAL NONRECURRING	- / 0.000	- / 0.107	- / -	- / 7.096	- / -	- / 7.096	- / -	- / -	- / -	- / -	- / -	- / 7.203
Change Orders	- / 0.584	- / 1.024	- / 0.750	- / 0.570	- / -	- / 0.570	- / 0.090	- / -	- / -	- / -	- / -	- / 3.018
SIM/TRAINER	- / -	0 / 0.000	1 / 2.070	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 2.070
ICS-Labor	- / 0.000	- / 0.740	- / 0.410	- / 0.350	- / -	- / 0.350	- / 0.280	- / 0.320	- / -	- / -	- / -	- / 2.100
SUPPORT-EQUIP	- / 0.321	- / -	- / -	- / 0.000	- / -	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / 0.321
PMA - Contractor Services	- / 0.000	- / 0.609	- / 1.464	- / 1.070	- / -	- / 1.070	- / 0.790	- / 0.825	- / -	- / -	- / -	- / 4.758
PMA - Other Gov't Costs	- / 0.486	- / 0.898	- / 0.920	- / 0.710	- / -	- / 0.710	- / 0.251	- / 0.267	- / -	- / -	- / -	- / 3.532
Subtotal: Support	*- / 1.391*	*0 / 18.165*	*1 / 5.614*	*- / 9.796*	*- / -*	*- / 9.796*	*- / 1.411*	*- / 1.412*	*- / -*	*- / -*	*- / -*	*1 / 37.789*
Installation												
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*
Total												
Total Cost (Procurement + Support + Installation)	**13.358**	**40.561**	**35.830**	**23.366**	**0.000**	**23.366**	**5.000**	**6.733**	**2.995**	**-**	**-**	**127.843**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** E00300 / E-3	**Modification Number / Title:** 9718 / IP-enabled Capability (IPEC)
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 1 of 1: IP Enabled Communication

Manufacturer Information

Manufacturer Name: Boeing	Manufacturer Location: Oklahoma City
Administrative Leadtime *(in Months)*: 1	Production Leadtime *(in Months)*: 16

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Nov 2016	Nov 2017	Nov 2018				
Delivery Dates	Mar 2018	Mar 2019	Mar 2020				

Installation Information

Method of Implementation (Organic): Org/Intermediate	**Installation Quantity:** 23

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** E00400 / E-4

ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0302015F	**Other Related Program Elements:** 0101316F, 0302015F
Line Item MDAP/MAIS Code: N/A		

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	25.069	53.348	30.493	67.858	0.000	67.858	48.477	83.896	52.318	39.674	0.000	401.133
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	25.069	53.348	30.493	67.858	0.000	67.858	48.477	83.896	52.318	39.674	0.000	401.133
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**25.069**	**53.348**	**30.493**	**67.858**	**0.000**	**67.858**	**48.477**	**83.896**	**52.318**	**39.674**	**0.000**	**401.133**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This line item funds modifications to the four (4) aircraft E-4B fleet. The four (4) engine E-4B is a highly modified Boeing 747 Model 200 (747-200) airframe which supports the National Airborne Operations Center (NAOC) mission. NAOC provides national civilian and military leadership with a worldwide, survivable, and enduring communications node of the National Military Command System (NMCS). The modifications listed within this document provide updates to maintain Federal Aviation Agency (FAA) airframe flight worthiness certification and provide additional capabilities to the aircraft flight control, navigation and communication systems, as well as the primary mission equipment to ensure the E-4B is able to execute its various missions. These modifications also enhance operational capability while improving flight safety, reliability, and maintainability.

The current Boeing estimated design service life of the Boeing 747-200 E-4B airframe is 115K hours and 30K cycles. It is estimated this limit will be reached by 2033. However, as the aircraft age, depot periods will need to be extended due to maintenance issues associated with an aging fleet, thus limiting the E-4B's ability to support the NAOC mission due to aircraft non-availability. The maintenance limiting point is expected to occur during the decade beginning 2020. The age of the four (4) E-4B aircraft fleet presents Diminishing Manufacturing Sources (DMS) issues involving primary mission equipment, and to a lesser extent the airframe. Airframe DMS and issues associated with the non-availability of FAA certified parts are expected to increase due to the dwindling world-wide number of Boeing 747-200 aircraft because of the the international commercial airline industry removing aging aircraft from their inventories. Funding also supports emerging modification requirements, Government travel, Advisory and Assistance Services Contract (A&ASC) & Federally Funded Research and Development Contract (FFRDC) support and equipment as required.

This program element may also include support funding for emerging modification requirements to support PMA, A&AS, OGC, equipment and other as required.

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	**Date:** February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** E00400 / E-4

ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0302015F	**Other Related Program Elements:** 0101316F, 0302015F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	3411 / Survivable SHF (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / -
P-40a***	4380 / MUOS (Capability Improvement)				- / -	- / -	- / -	- / 0.000	- / -	- / 0.000
P-40a***	9709F / CNS/ATM(ADS-B OUT) (Capability Improvement)				- / 0.520	- / 4.720	- / 4.860	- / 0.000	- / -	- / 0.000
P-40a***	99999X / Low Cost Modifications (Reliability & Maintainability)				- / 6.422	- / 1.990	- / 1.938	- / 1.990	- / -	- / 1.990
P-3a	1 / AEHF Compatible Terminal/PNVC (Capability Improvement)		B		- / 0.000	- / 0.017	- / 0.000	- / 8.107	- / 0.000	- / 8.107
P-3a	4409 / Low Frequency Transmit System (LFTS) (Capability Improvement)		B		- / 0.000	- / 41.205	- / 20.433	- / 52.281	- / 0.000	- / 52.281
P-3a	2 / SERVICE BULLETINS (Reliability & Maintainability)		B		- / 18.127	- / 5.416	- / 3.262	- / 5.480	- / 0.000	- / 5.480
P-40	**Total Gross/Weapon System Cost**				**- / 25.069**	**- / 53.348**	**- / 30.493**	**- / 67.858**	**- / 0.000**	**- / 67.858**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	3411 / Survivable SHF (Capability Improvement)				- / -	- / 29.749	- / 29.749	- / 29.754	- / -	- / 89.252
P-40a***	4380 / MUOS (Capability Improvement)				- / 5.700	- / 2.400	- / -	- / -	- / -	- / 8.100
P-40a***	9709F / CNS/ATM(ADS-B OUT) (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / 10.100
P-40a***	99999X / Low Cost Modifications (Reliability & Maintainability)				- / 1.990	- / 1.990	- / 1.990	- / 1.990	- / -	- / 20.300
P-3a	1 / AEHF Compatible Terminal/PNVC (Capability Improvement)		B		- / 3.472	- / 13.982	- / 14.676	- / 1.884	- / 0.000	- / 42.138
P-3a	4409 / Low Frequency Transmit System (LFTS) (Capability Improvement)		B		- / 31.748	- / 30.046	- / 0.000	- / 0.000	- / 0.000	- / 175.713
P-3a	2 / SERVICE BULLETINS (Reliability & Maintainability)		B		- / 5.567	- / 5.729	- / 5.903	- / 6.046	- / 0.000	- / 55.530
P-40	**Total Gross/Weapon System Cost**				**- / 48.477**	**- / 83.896**	**- / 52.318**	**- / 39.674**	**- / 0.000**	**- / 401.133**

*** Although this is an Exhibit P-40a item, the actual exhibit is not included since all of the required information for this item is already being shown here.

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** E00400 / E-4	**Modification Number / Title:** 1 / AEHF Compatible Terminal/PNVC
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	0.017	0.000	8.107	0.000	8.107	3.472	13.982	14.676	1.884	0.000	42.138
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	0.017	0.000	8.107	0.000	8.107	3.472	13.982	14.676	1.884	0.000	42.138
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**0.017**	**0.000**	**8.107**	**0.000**	**8.107**	**3.472**	**13.982**	**14.676**	**1.884**	**0.000**	**42.138**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This modification will install a Family of Beyond-Line-Of-Sight Terminals (FAB-T) / Presidential National Voice Conferencing (PNVC) system and will remove the currently installed Military Strategic Tactical Relay (MILSTAR) / Survivable Emergency Conferencing Network (SECN) systems. This modification is required to meet existing Presidential Policy Directive (PPD)-35, and National Security Presidential Directive (NSPD)-51/Homeland Security Presidential Directive (HSPD)-20 requirements and to ensure continued connectivity and interoperability as satellite and communications infrastructure evolves. FAB-T Command Post Terminals will replace the MILSTAR Terminal and will provide access to protected wideband Advanced Extremely High Frequency (AEHF) satellite networks. PNVC replaces SECN, which will not be supported once the AEHF satellite network is in place.

Support funding for emerging modification requirements to support PMA, A&AS, OGC, equipment and other as required.

Milestone/Development Status

Milestone B occurred in November 2016 and the Systems Requirements Review (SRR) occurred in June 2017. The Preliminary Design Review (PDR) is planned for 3QTR FY18 and the Critical Design Review (CDR) is planned for 4QTR FY18. The prototype kits were initially funded with FY16 RDT&E. The first production kit will be purchased with FY19 procurement funding and installed with FY21 funds due to a 16 month lead time. Other efforts will include integration and support activities and logistics planning.

Note: FY23/24 installs will be retrofits of the EMD kits.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** E00400 / E-4	**Modification Number / Title:** 1 / AEHF Compatible Terminal/PNVC
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: E-4B	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0302015F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0302015F	2 / 28.944	- / 0.349	- / 15.438	0 / 24.745	- / -	0 / 24.745	- / 15.087	- / -	- / -	- / -	- / -	2 / 84.563
Procurement												
Modification Item 1 of 1: AEHF Initial Kits												
A Kits												
Recurring												
AEHF Initial Kits:INSTALL KITS Group A (Active)	- / -	- / -	- / -	1 / 7.607	- / -	1 / 7.607	1 / 2.972	- / -	- / -	- / 1.884	- / -	2 / 12.463
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / 7.607*	*- / -*	*- / 7.607*	*- / 2.972*	*- / -*	*- / -*	*- / 1.884*	*- / -*	*- / 12.463*
Subtotal: AEHF Initial Kits	*- / -*	*- / -*	*- / -*	*- / 7.607*	*- / -*	*- / 7.607*	*- / 2.972*	*- / -*	*- / -*	*- / 1.884*	*- / -*	*- / 12.463*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / -*	*- / 7.607*	*- / -*	*- / 7.607*	*- / 2.972*	*- / -*	*- / -*	*- / 1.884*	*- / -*	*- / 12.463*
Support *(All Modification Items)*												
Data	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000
PMA - Other Gov't Costs	- / 0.000	- / 0.017	- / -	- / 0.500	- / -	- / 0.500	- / 0.500	- / 0.500	- / -	- / -	- / -	- / 1.517
Subtotal: Support	*- / 0.000*	*- / 0.017*	*- / -*	*- / 0.500*	*- / -*	*- / 0.500*	*- / 0.500*	*- / 0.500*	*- / -*	*- / -*	*- / -*	*- / 1.517*
Installation												
Modification Item 1 of 1: AEHF Initial Kits	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 13.482	1 / 14.676	0 / 0.000	- / -	2 / 28.158
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*1 / 13.482*	*1 / 14.676*	*- / 0.000*	*- / -*	*2 / 28.158*
Total												
Total Cost (Procurement + Support + Installation)	**0.000**	**0.017**	**0.000**	**8.107**	**0.000**	**8.107**	**3.472**	**13.982**	**14.676**	**1.884**	**0.000**	**42.138**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** E00400 / E-4	**Modification Number / Title:** 1 / AEHF Compatible Terminal/PNVC
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 1: AEHF Initial Kits

Manufacturer Information

Manufacturer Name: Raytheon	Manufacturer Location: Largo, FL
Administrative Leadtime *(in Months)*: 3	Production Leadtime *(in Months)*: 16

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates			Jun 2019	Jun 2020			
Delivery Dates			Oct 2020	Oct 2021			

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 13.482	- / -	- / -	- / -	1 / 13.482
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 14.676	- / -	- / -	1 / 14.676
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 13.482	1 / 14.676	0 / 0.000	- / -	2 / 28.158

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	0	2
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	0	2

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** E00400 / E-4	**Modification Number / Title:** 4409 / Low Frequency Transmit System (LFTS)
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	41.205	20.433	52.281	0.000	52.281	31.748	30.046	0.000	0.000	0.000	175.713
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	41.205	20.433	52.281	0.000	52.281	31.748	30.046	0.000	0.000	0.000	175.713
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**41.205**	**20.433**	**52.281**	**0.000**	**52.281**	**31.748**	**30.046**	**0.000**	**0.000**	**0.000**	**175.713**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	5.338	1.072	1.061	-	1.061	0.332	-	-	-	-	7.803
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Low Frequency Transmit System (LFTS) program will replace the current Very Low Frequency/Low Frequency (VLF/LF) Transmit system on the four aircraft E-4B fleet. The current system has been on the E-4B for over 35 years and is unsustainable. This system must be replaced in order to meet existing Presidential Policy Directive (PPD)-35 requirements and ensure there is constant and consistent connectivity between National Leadership and Military Forces in all phases on conflict. The E-4B National Airborne Operations Center (NAOC) Capability Development Document (CDD) is the relevant requirements document and the LF requirement was revalidated in Oct 2013 for LFTS. The AFROC approved AF1067 is ACC 13-059. LFTS will consist of three primary equipment groups: a Power Amplifier/Coupler (PA/C) group, a Trailing Wire Antenna (TWA) group, and a Control group.

Milestone/Development Status

Milestone B and the Systems Requirements Review (SRR) occurred in February 2015. The Preliminary Design Review (PDR) was completed in October 2015 and the Critical Design Review (CDR) completed in March 2016. The prototype kit was funded with FY16 and FY17 RDT&E. Prototype installation will occur during the Programmed Depot Maintenance (PDM) inducting November 2017 and will be funded with FY18 and FY19 RDT&E. The first production kit was purchased with FY17 procurement funding and will be installed with FY19 funds due to an 18 month lead time. The second production kit will be produced with FY17 funds and will be installed with FY20 funds. Other efforts will include integration and support activities and logistics planning.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** E00400 / E-4	**Modification Number / Title:** 4409 / Low Frequency Transmit System (LFTS)
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: E-4B	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0302015F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0302015F	- / 76.123	1 / 23.755	- / 20.029	- / 25.167	- / -	- / 25.167	- / 0.000	- / -	- / -	- / -	- / -	1 / 145.074
Procurement												
Modification Item 1 of 1: LFTS Baseline Kit												
A Kits												
Recurring												
LFTS Baseline Kit:INSTALL KITS Group A (Active)	- / -	2 / 40.805	- / -	1 / 17.610	- / -	1 / 17.610	- / -	- / -	- / -	- / -	- / -	3 / 58.415
Subtotal: Recurring	*- / -*	*- / 40.805*	*- / -*	*- / 17.610*	*- / -*	*- / 17.610*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 58.415*
Subtotal: LFTS Baseline Kit	*- / -*	*- / 40.805*	*- / -*	*- / 17.610*	*- / -*	*- / 17.610*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 58.415*
Subtotal: Procurement, All Modification Items	*- / -*	*- / 40.805*	*- / -*	*- / 17.610*	*- / -*	*- / 17.610*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 58.415*
Support *(All Modification Items)*												
SIM/TRAINER	- / -	- / -	1 / 20.033	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 20.033
PMA - Other Gov't Costs	- / -	- / 0.400	- / 0.400	- / 0.400	- / -	- / 0.400	- / 0.400	- / -	- / -	- / -	- / -	- / 1.600
Subtotal: Support	*- / -*	*- / 0.400*	*1 / 20.433*	*- / 0.400*	*- / -*	*- / 0.400*	*- / 0.400*	*- / -*	*- / -*	*- / -*	*- / -*	*1 / 21.633*
Installation												
Modification Item 1 of 1: LFTS Baseline Kit	- / -	- / -	- / -	1 / 34.271	- / -	1 / 34.271	1 / 31.348	1 / 30.046	- / -	- / -	- / -	3 / 95.665
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*1 / 34.271*	*- / -*	*1 / 34.271*	*1 / 31.348*	*1 / 30.046*	*- / -*	*- / -*	*- / -*	*3 / 95.665*
Total												
Total Cost (Procurement + Support + Installation)	**0.000**	**41.205**	**20.433**	**52.281**	**0.000**	**52.281**	**31.748**	**30.046**	**0.000**	**0.000**	**0.000**	**175.713**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** E00400 / E-4	**Modification Number / Title:** 4409 / Low Frequency Transmit System (LFTS)

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 1: LFTS Baseline Kit

Manufacturer Information

Manufacturer Name: Boeing

Manufacturer Location: Oklahoma City

Administrative Leadtime *(in Months)*: 0

Production Leadtime *(in Months)*: 19

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Jun 2017		May 2019				
Delivery Dates	Jan 2019		Dec 2020				

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	1 / 34.271	- / -	1 / 34.271	1 / 31.348	- / -	- / -	- / -	- / -	2 / 65.619
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 30.046	- / -	- / -	- / -	1 / 30.046
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	1 / 34.271	- / -	1 / 34.271	1 / 31.348	1 / 30.046	- / -	- / -	- / -	3 / 95.665

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	0	3
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	-	-	-	0	3

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** E00400 / E-4	**Modification Number / Title:** 2 / SERVICE BULLETINS
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	18.127	5.416	3.262	5.480	0.000	5.480	5.567	5.729	5.903	6.046	0.000	55.530
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	18.127	5.416	3.262	5.480	0.000	5.480	5.567	5.729	5.903	6.046	0.000	55.530
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**18.127**	**5.416**	**3.262**	**5.480**	**0.000**	**5.480**	**5.567**	**5.729**	**5.903**	**6.046**	**0.000**	**55.530**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	0.320	0.327	0.333	-	0.333	0.338	0.344	-	-	-	1.662
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Funds are required to complete Service Bulletins in order to maintain compliance with FAA standards and certification. Service Bulletins affect the safety, maintenance, and reliability for the aircraft, engines, and associated mission equipment. The funding profile is driven by Service Bulletin due date and aircraft availability.

Milestone/Development Status

None

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** E00400 / E-4	**Modification Number / Title:** 2 / SERVICE BULLETINS
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: E-4B	**Modification Type:** Reliability & Maintainability	**Related RDT&E PEs:** 0302015F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Service Support Deliverables												
A Kits												
Recurring												
Service Support Deliverables:INSTALL KITS Group A (Active)	10 / 13.073	3 / 3.315	1 / 1.601	2 / 2.610	- / -	2 / 2.610	2 / 2.652	2 / 2.734	2 / 2.694	2 / 2.812	- / -	24 / 31.491
Subtotal: Recurring	*- / 13.073*	*- / 3.315*	*- / 1.601*	*- / 2.610*	*- / -*	*- / 2.610*	*- / 2.652*	*- / 2.734*	*- / 2.694*	*- / 2.812*	*- / -*	*- / 31.491*
Subtotal: Service Support Deliverables	*- / 13.073*	*- / 3.315*	*- / 1.601*	*- / 2.610*	*- / -*	*- / 2.610*	*- / 2.652*	*- / 2.734*	*- / 2.694*	*- / 2.812*	*- / -*	*- / 31.491*
Subtotal: Procurement, All Modification Items	*- / 13.073*	*- / 3.315*	*- / 1.601*	*- / 2.610*	*- / -*	*- / 2.610*	*- / 2.652*	*- / 2.734*	*- / 2.694*	*- / 2.812*	*- / -*	*- / 31.491*
Support *(All Modification Items)*												
SUPPORT-EQUIP	- / 1.100	- / 0.480	- / 0.620	- / 0.030	- / -	- / 0.030	- / 0.020	- / 0.052	- / 0.032	- / 0.044	- / -	- / 2.378
A&AS	- / 0.353	- / 0.061	- / 0.021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.435
Subtotal: Support	*- / 1.453*	*- / 0.541*	*- / 0.641*	*- / 0.030*	*- / -*	*- / 0.030*	*- / 0.020*	*- / 0.052*	*- / 0.032*	*- / 0.044*	*- / -*	*- / 2.813*
Installation												
Modification Item 1 of 1: Service Support Deliverables	10 / 3.601	3 / 1.560	1 / 1.020	2 / 2.840	- / -	2 / 2.840	2 / 2.895	2 / 2.943	2 / 3.177	2 / 3.190	- / -	24 / 21.226
Subtotal: Installation	*10 / 3.601*	*3 / 1.560*	*1 / 1.020*	*2 / 2.840*	*- / -*	*2 / 2.840*	*2 / 2.895*	*2 / 2.943*	*2 / 3.177*	*2 / 3.190*	*- / -*	*24 / 21.226*
Total												
Total Cost (Procurement + Support + Installation)	**18.127**	**5.416**	**3.262**	**5.480**	**0.000**	**5.480**	**5.567**	**5.729**	**5.903**	**6.046**	**0.000**	**55.530**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** E00400 / E-4	**Modification Number / Title:** 2 / SERVICE BULLETINS
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 1: Service Support Deliverables

Manufacturer Information

Manufacturer Name: Boeing	Manufacturer Location: San Antonio, TX
Administrative Leadtime *(in Months)*: 2	Production Leadtime *(in Months)*: 4

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Jan 2017	Feb 2018	Jan 2019	Jan 2020	Jan 2021	Jan 2022	Jan 2023
Delivery Dates	May 2017	Jun 2018	May 2019	May 2020	May 2021	May 2022	May 2023

Installation Information

Method of Implementation: Depot Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	10 / 3.601	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 3.601
FY 2017	- / -	3 / 1.560	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 1.560
FY 2018	- / -	- / -	1 / 1.020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 1.020
FY 2019	- / -	- / -	- / -	2 / 2.840	- / -	2 / 2.840	- / -	- / -	- / -	- / -	- / -	2 / 2.840
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	2 / 2.895	- / -	- / -	- / -	- / -	2 / 2.895
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 2.943	- / -	- / -	- / -	2 / 2.943
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 3.177	0 / 0.000	- / -	2 / 3.177
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 3.190	- / -	2 / 3.190
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	10 / 3.601	3 / 1.560	1 / 1.020	2 / 2.840	- / -	2 / 2.840	2 / 2.895	2 / 2.943	2 / 3.177	2 / 3.190	- / -	24 / 21.226

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	10	-	-	3	-	-	-	1	-	-	-	2	-	-	-	2	-	-	-	2	-	-	-	2	-	-	-	2	-	0	24
Out	10	-	-	-	3	-	-	-	1	-	-	-	2	-	-	-	2	-	-	-	2	-	-	-	2	-	-	-	2	0	24

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** E00800 / E-8

ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0207581F	**Other Related Program Elements:** 0207581F

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	123.684	28.944	16.232	9.919	13.000	22.919	14.882	13.883	5.950	0.000	-	226.494
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	123.684	28.944	16.232	9.919	13.000	22.919	14.882	13.883	5.950	0.000	-	226.494
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**123.684**	**28.944**	**16.232**	**9.919**	**13.000**	**22.919**	**14.882**	**13.883**	**5.950**	**0.000**	**-**	**226.494**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This line item funds modifications to the E-8C Joint Surveillance Target Attack Radar System (JSTARS) aircraft through FY 2018. JSTARS was developed for ground surveillance, targeting, and battle management. The E-8C is a modified Boeing 707-300 airframe that provides a unique blend of Battle Management Command and Control (BMC2) and Intelligence, Surveillance, and Reconnaissance (ISR). Air Battle Managers onboard the JSTARS use its wide area ground surveillance radar to build situational awareness and identify targets which are passed to strike assets or crossed cued with ISR platforms. The capability to perform this dual mission at the tactical edge both reduces the time to execute the kill chain and improves ISR collections across the range of military options.

There are 16 E-8Cs in the inventory. Additional analysis is in work to determine the individual design service life of each of these aircraft.

FY18 funds cover three modification efforts:

1. Primary Mission Equipment (PME) Diminishing Manufacturing Sources (DMS)
PME DMS is a top issue for fleet viability. PME is required for Joint STARS to maintain net-centric war fighter capabilities - Ground Moving Target Indicator (GMTI) and Battle Management Command and Control (BMC2) as specified in the Operational Requirements Document (ORD). The last major modification to the mission computing hardware took place during the Computer Replacement Program (CRP) from 1997-2005. The program has maximized 3rd party vendors and after-market suppliers for the last eight years without any additional funded capital equipment replacements. Parts obsolescence stemming from an overdue capital equipment replacement (20+ year old Commercial Off the Shelf (COTS) equipment) requires a major modification to maintain the existing processing capabilities and specification compliance. Modification will address hardware and software DMS issues and COTS life cycle replacement for Operator Work Station (OWS), the Central Computing subsystem, and the Radar Airborne Signal Processor (RASP) subsystem. Modifications will also include but are not limited to mission and maintenance crew trainers, software maintenance, and support systems at Robins AFB GA. Installations will occur at Lake Charles, LA and the schedule is based on the Program Depot Maintenance (PDM) program. The PDM schedule is on fixed periodic time frames, however, the duration of the PDMs and platform availability are impacted by real world events therefore, the install schedule may vary. FY18 activities include: final two aircraft modification installations, contract closeout activities, disposition of government furnished property, and advisory and assistance support.

2. Combined Enterprise Regional Information Exchange System (CENTRIXs)
Central Command identified CENTRIXs as a requirement in Urgent Operational Need (UON) # CAF 301-10. CENTRIXs is the coalition network used by Joint Forces supporting FOL operations. It provides operational users with chat, e-mail, web browsing and processing of Microsoft Office documents received in the network. CENTRIXs is a global data network enterprise for U.S. and partner forces to share classified operational and intelligence information, region to region, for combined planning, unity of effort, and decision superiority in peacekeeping and contingency operations.

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** E00800 / E-8	
ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0207581F	**Other Related Program Elements:** 0207581F
Line Item MDAP/MAIS Code: N/A		

FY18 activities include: procurement of 16 CENTRIXs kits and 4 installations.

3. Emergency Locator Transmitter (ELT)

The current Joint STARS ELT operates on the older 121.5/243.0 MHz frequency that the international COSPAS-SARSAT satellite system no longer monitors. The upgraded ELT operates on 121.5/406 MHz allowing the international satellite system to monitored the frequency. In the event of a distressed E-8C aircraft, the new frequency reduces the risk of recovery of aircrew and military equipment.

FY18 OCO activities include: procurement of 16 ELT kits and 8 installations.

In accordance with Section 1815 of the FY2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for the use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Funding may be used to address Diminishing Manufacturing Sources (DMS) issues.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	26.944	6.732	-	-	-	-	-	-	-
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	2.000	9.500	9.919	13.000	22.919	14.882	13.883	5.950	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**28.944**	**16.232**	**9.919**	**13.000**	**22.919**	**14.882**	**13.883**	**5.950**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** E00800 / E-8

ID Code (A=Service Ready, B=Not Service Ready): B | **Program Elements for Code B Items:** 0207581F | **Other Related Program Elements:** 0207581F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)
P-40a***	38198 / Prime Mission Equipment - Diminishing Manufacturing Sources (Capability Improvement)				- / 123.684	- / 28.944	- / 10.732	- / -	- / -	- / -
P-40a***	38201 / COMBINED ENTERPRISE REGIONAL INFORMATION EXHANGE SYSTEM (CENTRIXs) (Capability Improvement)				- / -	- / -	- / 2.500	- / -	- / -	- / -
P-3a	38199 / Emergency Locator Transmitter (ELT) (Capability Improvement)		B		- / -	- / -	- / 3.000	- / 9.919	- / 13.000	- / 22.919
P-40	**Total Gross/Weapon System Cost**				**- / 123.684**	**- / 28.944**	**- / 16.232**	**- / 9.919**	**- / 13.000**	**- / 22.919**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)
P-40a***	38198 / Prime Mission Equipment - Diminishing Manufacturing Sources (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / 163.360
P-40a***	38201 / COMBINED ENTERPRISE REGIONAL INFORMATION EXHANGE SYSTEM (CENTRIXs) (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / 2.500
P-3a	38199 / Emergency Locator Transmitter (ELT) (Capability Improvement)		B		- / 14.882	- / 13.883	- / 5.950	- / -	- / -	- / 60.634
P-40	**Total Gross/Weapon System Cost**				**- / 14.882**	**- / 13.883**	**- / 5.950**	**- / 0.000**	**- / -**	**- / 226.494**

*** Although this is an Exhibit P-40a item, the actual exhibit is not included since all of the required information for this item is already being shown here.

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** E00800 / E-8	**Modification Number / Title:** 38199 / Emergency Locator Transmitter (ELT)
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	-	3.000	9.919	13.000	22.919	14.882	13.883	5.950	-	-	60.634
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	3.000	9.919	13.000	22.919	14.882	13.883	5.950	-	-	60.634
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**3.000**	**9.919**	**13.000**	**22.919**	**14.882**	**13.883**	**5.950**	**-**	**-**	**60.634**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The E-8C Joint STARS is a Battle Management Command and Control platform, providing forward deployed battle management, robust communications, and stand-off target surveillance, detection, tracking, and combat identification of objects within specified combat engagement areas. Current COCOM taskings require the E-8C to navigate and operate over vast oceanic areas, out of air traffic control, and within close proximity to neighboring countries. The current Joint STARS ELT operates on the older 121.5/243.0 MHz frequency, which is no longer monitored by the international COSPAS-SARSAT satellite system. The upgraded ELT operates on 121.5/406 MHz frequency and is monitored by the international satellite system. In the event of a distressed E-8C aircraft, the new frequency reduces the risk of recovery of aircrew and military equipment.

Milestone/Development Status

No development required

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	3.000	9.919	13.000	22.919	14.882	13.883	5.950	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**-**	**3.000**	**9.919**	**13.000**	**22.919**	**14.882**	**13.883**	**5.950**	**-**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** E00800 / E-8	**Modification Number / Title:** 38199 / Emergency Locator Transmitter (ELT)
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: E-8C	**Modification Type:** Capability Improvement	**Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Emergency Locator Transmitter												
B Kits												
Recurring												
Emergency Locator Transmitter:EQUIPMENT Group B (Guard)	- / -	- / -	16 / 3.000	48 / 9.919	64 / 13.000	112 / 22.919	66 / 14.882	64 / 13.883	32 / 5.950	- / -	- / -	290 / 60.634
Subtotal: Recurring	*- / -*	*- / -*	*- / 3.000*	*- / 9.919*	*- / 13.000*	*- / 22.919*	*- / 14.882*	*- / 13.883*	*- / 5.950*	*- / -*	*- / -*	*- / 60.634*
Subtotal: Emergency Locator Transmitter	*- / -*	*- / -*	*- / 3.000*	*- / 9.919*	*- / 13.000*	*- / 22.919*	*- / 14.882*	*- / 13.883*	*- / 5.950*	*- / -*	*- / -*	*- / 60.634*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / 3.000*	*- / 9.919*	*- / 13.000*	*- / 22.919*	*- / 14.882*	*- / 13.883*	*- / 5.950*	*- / -*	*- / -*	*- / 60.634*
Installation												
Modification Item 1 of 1: Emergency Locator Transmitter	- / -	- / -	16 / 0.000	48 / 0.000	64 / 0.000	112 / 0.000	66 / 0.000	64 / 0.000	32 / 0.000	- / -	- / -	290 / 0.000
Subtotal: Installation	*- / -*	*- / -*	*16 / 0.000*	*48 / 0.000*	*64 / 0.000*	*112 / 0.000*	*66 / 0.000*	*64 / 0.000*	*32 / 0.000*	*- / -*	*- / -*	*290 / 0.000*
Total												
Total Cost (Procurement + Support + Installation)	**-**	**-**	**3.000**	**9.919**	**13.000**	**22.919**	**14.882**	**13.883**	**5.950**	**-**	**-**	**60.634**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** E00800 / E-8	**Modification Number / Title:** 38199 / Emergency Locator Transmitter (ELT)

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 1: Emergency Locator Transmitter

Manufacturer Information

Manufacturer Name: Cobham Avionics

Manufacturer Location: Aurora OR

Administrative Leadtime *(in Months)*: 0

Production Leadtime *(in Months)*: 2

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Jun 2018					
Delivery Dates		Aug 2018					

Installation Information

Method of Implementation: Contractor Facility

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	16 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	16 / 0.000
FY 2019	- / -	- / -	- / -	48 / 0.000	64 / 0.000	112 / 0.000	- / -	- / -	- / -	- / -	- / -	112 / 0.000
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	66 / 0.000	- / -	- / -	- / -	- / -	66 / 0.000
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	64 / 0.000	0 / 0.000	- / -	- / -	64 / 0.000
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	32 / 0.000	- / -	- / -	32 / 0.000
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	16 / 0.000	48 / 0.000	64 / 0.000	112 / 0.000	66 / 0.000	64 / 0.000	32 / 0.000	- / -	- / -	290 / 0.000

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	8	-	8	-	56	-	56	-	33	-	33	-	32	-	32	-	16	-	16	-	-	-	-	-	0	290
Out	0	-	-	-	-	-	8	-	8	-	56	-	56	-	33	-	33	-	32	-	32	-	16	-	16	-	-	-	-	0	290

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** E34045 / Airborne Warning and Cntr Sys (AWACS) 40/45

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0207417F	Other Related Program Elements: 0207417F

Line Item MDAP/MAIS Code: 277

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	344.458	245.227	164.786	57.780	0.000	57.780	41.777	39.566	28.758	0.000	0.000	922.352
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	344.458	245.227	164.786	57.780	0.000	57.780	41.777	39.566	28.758	0.000	0.000	922.352
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**344.458**	**245.227**	**164.786**	**57.780**	**0.000**	**57.780**	**41.777**	**39.566**	**28.758**	**0.000**	**0.000**	**922.352**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Airborne Warning and Control System (AWACS) provides a highly mobile, flexible, survivable theater Battle Management (BM), Wide Area Surveillance, and Command and Control (C2) capability. It is capable of detecting, identifying, and tracking airborne and maritime targets at extended ranges as well as identifying air/ground emitters. AWACS can relay "big picture information to C2 agencies and friendly aircraft. AWACS provides worldwide response to situations requiring immediate on-scene C2/BM using embedded real-time surveillance for employment of US and allied combat air forces. AWACS is critical to gaining and maintaining battle-space air superiority. AWACS coordinates with both tactical and C2 assets in theater to execute the air mission. The AWACS Block 40/45 Upgrade program is the largest modification in U.S. AWACS history and represents the critical foundation and baseline system required for all future AWACS enterprise modifications including net-centric operations. The AWACS Block 40/45 Upgrade provides a single target/single track capability with an improved human-machine interface for time-critical targeting designed to increase combat effectiveness and reduce fratricide. The AWACS Block 40/45 Upgrade program includes an upgrade to Electronic Support Measures sensor data processing; Multi-Source Integration; a Data Link Infrastructure with prioritized data link bandwidth management for Link 16/Link 11; new battle management tools; capability to parse, allow user access to, and integrate Air Control Order/Air Tasking Order data; enhanced mission and console recording capabilities; and an update to a low-bandwidth internet chat capability (Secure Iridium Chat).

Low Rate Initial Production (LRIP) was approved for six (6) aircraft in November 2008 [one (1) buy in FY 2009, two (2) buys in FY 2010, and three (3) buys in FY 2012]. The Block 40/45 Full Rate Production was approved in November 2012 for the remaining twenty five (25) aircraft and technology refresh of the six (6) LRIP aircraft; the corresponding production contract was awarded on 27 December 2012. The Block 40/45 Upgrade is postured in accordance with the FY 2019 force reduction, and as such, will execute to a programmatic baseline of twenty four (24) aircraft. The divestiture of seven (7) aircraft will therefore reduce the quantity of full-rate production aircraft from twenty five (25) to eighteen (18). The program is in the process of awarding a contract inclusive of one last LoT buy to procure remaining Block 40/45 production kits, six (6) to be used to retrofit the LRIP jets and the other kits to modify the remaining Block 30/35 jets. $21.800 million was required in FY17 to address emergency warfighting readiness requirements. Restores procurement funds for the Block 40/45 AWACS modification for one active duty AWACS Operations Squadron. Provides increased capability through improvements in user interface, battle management tools, multi-source integration and enhanced data link. In FY 2013, the program office began Depot Activation activities to comply with Sources of Repair Assignment Program (SORAP) 09-063 that mandates organic hardware and software maintenance. In December 2015 the government awarded a contract to fully implement an organic software maintenance facility known as the Avionics Integration Support Facility (AISF) by FY 2019. Depot activation of select components and implementation of a Performance Based Logistics (PBL) strategy recommended by our Product Support Business Case Analysis are in work. Funding for this modification had previously been contained in Weapon System Code (WSC) E00300, but as part of OSD's Major Programs Transparency Initiative and starting in FY15, the AWACS Block 40/45 Upgrade (MDAP) was moved to WSC E34045. Prior year funding remains in WSC E00300.

FY 2019 Plan: Program continues to complete block modification upgrades to the 40/45 configuration (E-3G). Five (5: P21-P24 and L1) aircraft will commence Programmed Depot Maintenance (PDM) in FY 2019 - four (4) Block 30/35 jets and one (1) LRIP jet [to be retrofitted to the latest Block 40/45 baseline configuration]. The three (3) jets that began PDM in FY 2018 will be delivered to the 552nd Air Control Wing

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** E34045 / Airborne Warning and Cntr Sys (AWACS) 40/45	
ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0207417F	**Other Related Program Elements:** 0207417F
Line Item MDAP/MAIS Code: 277		

(ACW) at Tinker AFB, OK in FY 2019. This will bring the total 40/45 (E-3G) configured jets to twenty-four (24) by the end of FY 2019 with the remaining (5 of 6) LRIP Jets to be retrofitted to the latest Block 40/45 baseline configuration in FY 2020. The program will continue to execute an Interim Contractor Support (ICS) contract to maintain fielded jets in preparation for a transition to a long-term Contractor Logistics Support (CLS) contract to be awarded in FY 2019. The program will continue to support the 552nd ACW and field support infrastructure at the 962nd Air Control Squadron at Joint Base Elmendorf- Richardson, AK and the 961st Air Control Squadron at Kadena AFB, Japan. Finally, the program will continue software depot activation activities at the 558th Software Maintenance Squadron (AISF) at Tinker AFB.

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** E34045 / Airborne Warning and Cntr Sys (AWACS) 40/45

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0207417F	Other Related Program Elements: 0207417F

Line Item MDAP/MAIS Code: 277

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-3a	1 / BLOCK 40/45 BLOCK UPGRADE (Capability Improvement)		A		- / 344.458	- / 245.227	- / 164.786	- / 57.780	- / 0.000	- / 57.780
P-40	**Total Gross/Weapon System Cost**				**- / 344.458**	**- / 245.227**	**- / 164.786**	**- / 57.780**	**- / 0.000**	**- / 57.780**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-3a	1 / BLOCK 40/45 BLOCK UPGRADE (Capability Improvement)		A		- / 41.777	- / 39.566	- / 28.758	- / 0.000	- / 0.000	- / 922.352
P-40	**Total Gross/Weapon System Cost**				**- / 41.777**	**- / 39.566**	**- / 28.758**	**- / 0.000**	**- / 0.000**	**- / 922.352**

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** E34045 / Airborne Warning and Cntr Sys (AWACS) 40/45	**Modification Number / Title:** 1 / BLOCK 40/45 BLOCK UPGRADE
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	344.458	245.227	164.786	57.780	0.000	57.780	41.777	39.566	28.758	0.000	0.000	922.352
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	344.458	245.227	164.786	57.780	0.000	57.780	41.777	39.566	28.758	0.000	0.000	922.352
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**344.458**	**245.227**	**164.786**	**57.780**	**0.000**	**57.780**	**41.777**	**39.566**	**28.758**	**0.000**	**0.000**	**922.352**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	4.492	3.174	3.226	-	3.226	3.282	0.000	0.000	0.000	0.000	14.174
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Airborne Warning and Control System (AWACS) provides a highly mobile, flexible, survivable theater Battle Management (BM), Wide Area Surveillance, and Command and Control (C2) capability. It is capable of detecting, identifying, and tracking airborne and maritime targets at extended ranges as well as identifying air/ground emitters. AWACS can relay "big picture information to C2 agencies and friendly aircraft. AWACS provides worldwide response to situations requiring immediate on-scene C2/BM using embedded real-time surveillance for employment of US and allied combat air forces. AWACS is critical to gaining and maintaining battle-space air superiority. AWACS coordinates with both tactical and C2 assets in theater to execute the air mission. The AWACS Block 40/45 Upgrade program is the largest modification in U.S. AWACS history and represents the critical foundation and baseline system required for all future AWACS enterprise modifications including net-centric operations. The AWACS Block 40/45 Upgrade provides a single target/single track capability with an improved human-machine interface for time-critical targeting designed to increase combat effectiveness and reduce fratricide. The AWACS Block 40/45 Upgrade program includes an upgrade to Electronic Support Measures sensor data processing; Multi-Source Integration; a Data Link Infrastructure with prioritized data link bandwidth management for Link 16/Link 11; new battle management tools; capability to parse, allow user access to, and integrate Air Control Order/Air Tasking Order data; enhanced mission and console recording capabilities; and an update to a low-bandwidth internet chat capability (Secure Iridium Chat).

Low Rate Initial Production (LRIP) was approved for six (6) aircraft in November 2008 [one (1) buy in FY 2009, two (2) buys in FY 2010, and three (3) buys in FY 2012]. The Block 40/45 Full Rate Production was approved in November 2012 for the remaining twenty five (25) aircraft and technology refresh of the six (6) LRIP aircraft; the corresponding production contract was awarded on 27 December 2012. The Block 40/45 Upgrade is postured in accordance with the FY 2019 force reduction, and as such, will execute to a programmatic baseline of twenty four (24) aircraft. The divestiture of seven (7) aircraft will therefore reduce the quantity of full-rate production aircraft from twenty five (25) to eighteen (18). The program is in the process of awarding a contract inclusive of one last LoT buy to procure remaining Block 40/45 production kits, six (6) to be used to retrofit the LRIP jets and the other kits to modify the remaining Block 30/35 jets. $21.800 million was required in FY17 to address emergency warfighting readiness requirements. Restores procurement funds for the Block 40/45 AWACS modification for one active duty AWACS Operations Squadron. Provides increased capability through improvements in user interface, battle management tools, multi-source integration and enhanced data link. In FY 2013, the program office began Depot Activation activities to comply with Sources of Repair Assignment Program (SORAP) 09-063 that mandates organic hardware and software maintenance. In December 2015 the government awarded a contract to fully implement an organic software maintenance facility known as the Avionics Integration Support Facility (AISF) by FY 2019. Depot activation of select components and implementation of a Performance Based Logistics (PBL) strategy recommended by our Product Support Business Case Analysis are in work. Funding for this modification had previously been contained in Weapon System Code (WSC) E00300, but as part of OSD's Major Programs Transparency Initiative and starting in FY15, the AWACS Block 40/45 Upgrade (MDAP) was moved to WSC E34045. Prior year funding remains in WSC E00300.

FY 2019 Plan: Program continues to complete block modification upgrades to the 40/45 configuration (E-3G). Five (5: P21-P24 and L1) aircraft will commence Programmed Depot Maintenance (PDM) in FY 2019 - four (4) Block 30/35 jets and one (1) LRIP jet [to be retrofitted to the latest Block 40/45 baseline configuration]. The three (3) jets that began PDM in FY 2018 will be delivered to the 552nd Air Control Wing (ACW) at Tinker AFB, OK in FY 2019. This will bring the total 40/45 (E-3G) configured jets to twenty-four (24) by the end of FY 2019 with the remaining (5 of 6) LRIP Jets to be retrofitted to the latest Block 40/45 baseline configuration in FY 2020. The program will continue to execute an Interim Contractor Support (ICS) contract to maintain fielded jets in preparation for a transition to a long-term Contractor Logistics Support (CLS) contract to be awarded in FY 2019. The program will continue to support the 552nd ACW and field support infrastructure at the 962nd Air Control Squadron at Joint Base Elmendorf- Richardson, AK and the 961st Air Control Squadron at Kadena AFB, Japan. Finally, the program will continue software depot activation activities at the 558th Software Maintenance Squadron (AISF) at Tinker AFB.' style='font-family: Consolas,"Lucida Console","Courier New",Courier; font-weight: 500; white-space: pre-wrap;'><span style='font-family: Consolas,"Lucida Console","Courier New",Courier; font-weight: 500; white-space: pre-wrap;'>The Airborne Warning and Control System (AWACS) provides a highly mobile, flexible, survivable theater Battle Management (BM), Wide Area Surveillance, and Command and

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** E34045 / Airborne Warning and Cntr Sys (AWACS) 40/45	**Modification Number / Title:** 1 / BLOCK 40/45 BLOCK UPGRADE
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Control (C2) capability. It is capable of detecting, identifying, and tracking airborne and maritime targets at extended ranges as well as identifying air/ground emitters. AWACS can relay "big picture information to C2 agencies and friendly aircraft. AWACS provides worldwide response to situations requiring immediate on-scene C2/BM using embedded real-time surveillance for employment of US and allied combat air forces. AWACS is critical to gaining and maintaining battle-space air superiority. AWACS coordinates with both tactical and C2 assets in theater to execute the air mission. The AWACS Block 40/45 Upgrade program is the largest modification in U.S. AWACS history and represents the critical foundation and baseline system required for all future AWACS enterprise modifications including net-centric operations. The AWACS Block 40/45 Upgrade provides a single target/single track capability with an improved human-machine interface for time-critical targeting designed to increase combat effectiveness and reduce fratricide. The AWACS Block 40/45 Upgrade program includes an upgrade to Electronic Support Measures sensor data processing; Multi-Source Integration; a Data Link Infrastructure with prioritized data link bandwidth management for Link 16/Link 11; new battle management tools; capability to parse, allow user access to, and integrate Air Control Order/Air Tasking Order data; enhanced mission and console recording capabilities; and an update to a low-bandwidth internet chat capability (Secure Iridium Chat).

Low Rate Initial Production (LRIP) was approved for six (6) aircraft in November 2008 [one (1) buy in FY 2009, two (2) buys in FY 2010, and three (3) buys in FY 2012]. The Block 40/45 Full Rate Production was approved in November 2012 for the remaining twenty five (25) aircraft and technology refresh of the six (6) LRIP aircraft; the corresponding production contract was awarded on 27 December 2012. The Block 40/45 Upgrade is postured in accordance with the FY 2019 force reduction, and as such, will execute to a programmatic baseline of twenty four (24) aircraft. The divestiture of seven (7) aircraft will therefore reduce the quantity of full-rate production aircraft from twenty five (25) to eighteen (18). The program is in the process of awarding a contract inclusive of one last LoT buy to procure remaining Block 40/45 production kits, six (6) to be used to retrofit the LRIP jets and the other kits to modify the remaining Block 30/35 jets. $21.800 million was required in FY17 to address emergency warfighting readiness requirements. Restores procurement funds for the Block 40/45 AWACS modification for one active duty AWACS Operations Squadron. Provides increased capability through improvements in user interface, battle management tools, multi-source integration and enhanced data link. In FY 2013, the program office began Depot Activation activities to comply with Sources of Repair Assignment Program (SORAP) 09-063 that mandates organic hardware and software maintenance. In December 2015 the government awarded a contract to fully implement an organic software maintenance facility known as the Avionics Integration Support Facility (AISF) by FY 2019. Depot activation of select components and implementation of a Performance Based Logistics (PBL) strategy recommended by our Product Support Business Case Analysis are in work. Funding for this modification had previously been contained in Weapon System Code (WSC) E00300, but as part of OSD's Major Programs Transparency Initiative and starting in FY15, the AWACS Block 40/45 Upgrade (MDAP) was moved to WSC E34045. Prior year funding remains in WSC E00300.

FY 2019 Plan: Program continues to complete block modification upgrades to the 40/45 configuration (E-3G). Five (5: P21-P24 and L1) aircraft will commence Programmed Depot Maintenance (PDM) in FY 2019 - four (4) Block 30/35 jets and one (1) LRIP jet [to be retrofitted to the latest Block 40/45 baseline configuration]. The three (3) jets that began PDM in FY 2018 will be delivered to the 552nd Air Control Wing (ACW) at Tinker AFB, OK in FY 2019. This will bring the total 40/45 (E-3G) configured jets to twenty-four (24) by the end of FY 2019 with the remaining (5 of 6) LRIP Jets to be retrofitted to the latest Block 40/45 baseline configuration in FY 2020. The program will continue to execute an Interim Contractor Support (ICS) contract to maintain fielded jets in preparation for a transition to a long-term Contractor Logistics Support (CLS) contract to be awarded in FY 2019. The program will continue to support the 552nd ACW and field support infrastructure at the 962nd Air Control Squadron at Joint Base Elmendorf- Richardson, AK and the 961st Air Control Squadron at Kadena AFB, Japan. Finally, the program will continue software depot activation activities at the 558th Software Maintenance Squadron (AISF) at Tinker AFB.

Milestone/Development Status

11/08 - Completed Aircraft Block 40/45 Development (Milestone C/LRIP), 08/11 - Completed Aircraft Block 40/45 Pre-Production, 11/13 - Completed Development of MCMT, 02/14 - Completed Development of MCTS, 06/14 - Completed Development of DGS/GS, 06/14 - Last (6th) LRIP Jet Delivered, First Production Jet Inducted, 07/14 - IOC Declared by ACC/CC.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** E34045 / Airborne Warning and Cntr Sys (AWACS) 40/45	**Modification Number / Title:** 1 / BLOCK 40/45 BLOCK UPGRADE
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: E-3	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0207417F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Block 4045												
A Kits												
Recurring												
Block 4045:INSTALL KITS Group A (Active)	7 / 51.667	4 / 27.556	7 / 39.173	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	18 / 118.396
Subtotal: Recurring	*- / 51.667*	*- / 27.556*	*- / 39.173*	*- / 0.000*	*- / 0.000*	*- / 0.000*	*- / 0.000*	*- / 0.000*	*- / 0.000*	*- / 0.000*	*- / 0.000*	*- / 118.396*
B Kits												
Recurring												
Block 4045:EQUIPMENT Group B (Active)	- / 22.197	- / 43.618	- / 29.867	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 95.682
Subtotal: Recurring	*- / 22.197*	*- / 43.618*	*- / 29.867*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 95.682*
Subtotal: Block 4045	*- / 73.864*	*- / 71.174*	*- / 69.040*	*- / 0.000*	*- / 0.000*	*- / 0.000*	*- / 0.000*	*- / 0.000*	*- / 0.000*	*- / 0.000*	*- / 0.000*	*- / 214.078*
Subtotal: Procurement, All Modification Items	*- / 73.864*	*- / 71.174*	*- / 69.040*	*- / 0.000*	*- / 0.000*	*- / 0.000*	*- / 0.000*	*- / 0.000*	*- / 0.000*	*- / 0.000*	*- / 0.000*	*- / 214.078*
Support *(All Modification Items)*												
GROUP B: TOTAL NONRECURRING	- / 93.762	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 93.762
Make New Selection	- / 66.875	- / 26.812	- / 22.821	- / 16.750	- / -	- / 16.750	- / 28.093	- / 19.360	- / 16.448	- / -	- / -	- / 197.159
Change Orders	- / 0.000	- / 7.447	- / 5.053	- / 1.145	- / -	- / 1.145	- / 0.915	- / 0.653	- / 0.560	- / -	- / -	- / 15.773
SIM/TRAINER	- / -	1 / 47.590	1 / 6.789	1 / 0.250	- / -	1 / 0.250	- / -	- / -	- / -	- / -	- / -	3 / 54.629
SUPPORT-EQUIP	- / 37.536	- / 34.865	- / 15.533	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 87.934
ICS-Labor	- / 41.592	- / 30.366	- / 24.319	- / 19.587	- / -	- / 19.587	- / -	- / -	- / -	- / -	- / -	- / 115.864
OTHER GOVT	- / 0.512	- / 15.600	- / 7.537	- / 0.655	- / -	- / 0.655	- / 0.573	- / 0.569	- / 0.455	- / -	- / -	- / 25.901
PMA - Other Gov't Costs	- / 3.970	- / 3.899	- / 2.682	- / 0.802	- / -	- / 0.802	- / 0.595	- / 0.563	- / 0.408	- / -	- / -	- / 12.919
PMA - Contractor Services	- / 8.296	- / 4.616	- / 3.786	- / 3.330	- / -	- / 3.330	- / 4.190	- / 4.362	- / 3.795	- / -	- / -	- / 32.375
Subtotal: Support	*- / 252.543*	*1 / 171.195*	*1 / 88.520*	*1 / 42.519*	*- / 0.000*	*1 / 42.519*	*- / 34.366*	*- / 25.507*	*- / 21.666*	*- / 0.000*	*- / 0.000*	*3 / 636.316*
Installation												
Modification Item 1 of 1: Block 4045	8 / 18.051	1 / 2.858	3 / 7.226	4 / 15.261	- / -	4 / 15.261	2 / 7.411	5 / 14.059	0 / 7.092	- / -	- / -	23 / 71.958
Subtotal: Installation	*8 / 18.051*	*1 / 2.858*	*3 / 7.226*	*4 / 15.261*	*- / -*	*4 / 15.261*	*2 / 7.411*	*5 / 14.059*	*- / 7.092*	*- / -*	*- / -*	*23 / 71.958*
Total												
Total Cost (Procurement + Support + Installation)	**344.458**	**245.227**	**164.786**	**57.780**	**0.000**	**57.780**	**41.777**	**39.566**	**28.758**	**0.000**	**0.000**	**922.352**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** E34045 / Airborne Warning and Cntr Sys (AWACS) 40/45	**Modification Number / Title:** 1 / BLOCK 40/45 BLOCK UPGRADE

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 1 of 1: Block 4045

Manufacturer Information

Manufacturer Name: Boeing

Manufacturer Location: Seattle

Administrative Leadtime *(in Months)*: 5

Production Leadtime *(in Months)*: 16

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Mar 2016 (1)	Oct 2018					
Delivery Dates	Apr 2018	Feb 2020					

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	8 / 18.051	1 / 2.858	3 / 7.226	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 28.135
FY 2017	- / -	- / -	- / -	4 / 15.261	- / -	4 / 15.261	- / -	- / -	- / -	- / -	- / -	4 / 15.261
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	2 / 7.411	5 / 14.059	0 / 7.092	- / -	- / -	7 / 28.562
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	8 / 18.051	1 / 2.858	3 / 7.226	4 / 15.261	- / -	4 / 15.261	2 / 7.411	5 / 14.059	0 / 7.092	- / -	- / -	23 / 71.958

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	3	1	-	-	-	-	-	2	1	-	1	1	2	1	-	1	-	1	2	1	1	-	-	-	-	-	-	-	-	0	18
Out	5	1	2	1	1	1	-	-	-	2	-	-	1	-	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	0	18

Footnotes:

(1) Administrative Lead time for contract awards planned in Dec includes preparations and processes that begin during the previous FY. Contracting action began Mar 16, Contract award Dec 16, and first delivery Apr 18.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** FBLOST / Family of Beyond Line-of-Sight Terminals

ID Code (A=Service Ready, B=Not Service Ready): A	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** 0303001F, 0303601F
Line Item MDAP/MAIS Code: 199		

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	47.666	4.673	24.716	14.293	0.000	14.293	1.969	1.576	0.000	0.000	-	94.893
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	47.666	4.673	24.716	14.293	0.000	14.293	1.969	1.576	0.000	0.000	-	94.893
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**47.666**	**4.673**	**24.716**	**14.293**	**0.000**	**14.293**	**1.969**	**1.576**	**0.000**	**0.000**	**-**	**94.893**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Family of Advanced Beyond Line-of-Sight Terminals (FAB-T) program replaces legacy Milstar terminals and provides Extremely High Frequency (EHF), protected high data rate communication for nuclear and conventional forces to include Presidential and National Voice Conferencing (PNVC). FAB-T will provide this new, highly secure, state-of-the-art capability for DoD platforms to include: Strategic platforms and airborne/ground command posts via Milstar; AEHF; and Enhanced Polar System (EPS) satellites. FAB-T terminals will also support the critical command and control (C2) of the Milstar, AEHF and EPS satellite constellations. In FY 2018, FAB-T awarded the FY 2018 Terminal buys, support platform installation activities, and provide Interim Contractor Support for existing fielded terminals. In FY 2019, FAB-T will continue to support platform installation activities, and provide Interim Contractor Support for existing fielded terminals. etc.

The Force Element Terminal (FET) subprogram provides a nuclear survivable terminal capable of communicating with the Milstar and AEHF satellites, and provides for survivable NC3 data transport services (EAM dissemination and force report back) for airborne platforms. The FET is for the B-52 and select RC-135 aircraft and will not provide satellite control or PNVC functionality.

PNVC communication Baseband Interface Group (BIG) equipment purchases will provide voice encoding/decoding and encryption/decryption via KY-280s for use with Milstar and Advanced EHF satellite communication networks. The Multi-Stream Summing Device (MSD-III) provides the audio summing capability of all twelve (12) networks and controls all the conference management data. It also serves as the primary audio interface between the Red Switch and the BIG. This summing device manages the messaging of information for channel access control and message control for conference initiation and termination. The equipment will support Senior Leader Conferencing via Survivable Emergency Communication Networks (SECN) digitization and support, secure, survivable voice conferencing capability for the President and national senior leaders.

The current and future space domain demands that space systems be responsive to new and changing threats, and can rapidly integrate new capabilities to make our warfighting force more resilient in a contested battlespace. This agility, survivability, and rapid reconstitution must extend through the entire space warfighting enterprise, to include how we learn about the threat; develop solutions; acquire, test, deploy, train, operate and integrate new systems into the greater system of systems; and ensure our space mission force is ready to defeat a thinking adversary in a complex, multi-domain battlespace. The enterprise will use all of its elements to accelerate decision-making, prototype potential solutions, rapidly integrate decision-making tools and sustain a war-winning capability by delivering multi-domain effects in, from, and through space and cyberspace enabling battle management and resilience options to "fight through."

Funding for this exhibit is contained in PE 1203001F.

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	**Date:** February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** FBLOST / Family of Beyond Line-of-Sight Terminals

ID Code (A=Service Ready, B=Not Service Ready): A	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** 0303001F, 0303601F

Line Item MDAP/MAIS Code: 199

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-3a	1 / Family of Beyond Line-of-Sight Terminals (Capability Improvement)		A		- / 47.666	- / 4.673	- / 24.716	- / 14.293	- / 0.000	- / 14.293
P-40	**Total Gross/Weapon System Cost**				**- / 47.666**	**- / 4.673**	**- / 24.716**	**- / 14.293**	**- / 0.000**	**- / 14.293**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-3a	1 / Family of Beyond Line-of-Sight Terminals (Capability Improvement)		A		- / 1.969	- / 1.576	- / 0.000	- / 0.000	- / -	- / 94.893
P-40	**Total Gross/Weapon System Cost**				**- / 1.969**	**- / 1.576**	**- / 0.000**	**- / 0.000**	**- / -**	**- / 94.893**

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** FBLOST / Family of Beyond Line-of-Sight Terminals	**Modification Number / Title:** 1 / Family of Beyond Line-of-Sight Terminals
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	47.666	4.673	24.716	14.293	0.000	14.293	1.969	1.576	0.000	0.000	-	94.893
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	47.666	4.673	24.716	14.293	0.000	14.293	1.969	1.576	0.000	0.000	-	94.893
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**47.666**	**4.673**	**24.716**	**14.293**	**0.000**	**14.293**	**1.969**	**1.576**	**0.000**	**0.000**	**-**	**94.893**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	3.561	1.343	6.140	-	6.140	-	-	-	-	-	11.044
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Family of Advanced Beyond Line-of-Sight Terminals (FAB-T) program replaces legacy Milstar terminals and will provide Extremely High Frequency (EHF), protected high data rate communication for nuclear and conventional forces to include Presidential and National Voice Conferencing (PNVC). FAB-T will provide this new, highly secure, state-of-the-art capability for DoD platforms to include strategic platforms and airborne/ground command posts via Milstar, AEHF, and Enhanced Polar System (EPS) satellites. FAB-T terminals will also support the critical command and control (C2) of the Milstar, AEHF and EPS satellite constellations. FY 2018, FAB-T awarded the FY 2018 Terminal buys, support platform install activities, as well as provided Interim Contractor Support for the existing fielded terminals. In FY 2019, FAB-T will continue program office support, terminal buys, support platform install activities, as well as provided Interim Contractor Support for the existing fielded terminal and other related support activities. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, prototyping, etc.

PNVC communication Baseband Interface Group (BIG) purchases will provide voice encoding/decoding and encryption/decryption via KY-280s for use with Milstar and Advanced EHF satellite communication networks. The Multi-Stream Summing Device (MSD-III) provides the audio summing capability of all twelve(12) networks and controls all the conference management data. It also serves as the primary audio interface between the Red Switch and the BIG. This summing device manages the messaging of information for channel access control and message control for conference initiation and termination. This equipment will support Senior Leader Conferencing via Survivable Emergency Communication Networks (SECN) digitization and support, secure, survivable voice conferencing capability for the President and national senior leaders. PNVC will Continue program office support and other related support activities. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, prototyping, etc.

Milestone/Development Status

Production contract options to produce CPT terminals were exercised after a successful Milestone C decision was approved on September 1, 2015 and awarded September 14, 2015.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** FBLOST / Family of Beyond Line-of-Sight Terminals	**Modification Number / Title:** 1 / Family of Beyond Line-of-Sight Terminals
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: E-4, E-6	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0303001F, 0303601F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 3: FAB-T												
B Kits												
Recurring												
FAB-T:EQUIPMENT Group B (Active)	17 / 46.719	1 / 4.524	5 / 18.552	2 / 12.893	- / -	2 / 12.893	0 / 1.769	0 / 1.576	- / -	- / -	- / -	25 / 86.033
Subtotal: Recurring	*- / 46.719*	*- / 4.524*	*- / 18.552*	*- / 12.893*	*- / -*	*- / 12.893*	*- / 1.769*	*- / 1.576*	*- / -*	*- / -*	*- / -*	*- / 86.033*
Subtotal: FAB-T	*- / 46.719*	*- / 4.524*	*- / 18.552*	*- / 12.893*	*- / -*	*- / 12.893*	*- / 1.769*	*- / 1.576*	*- / -*	*- / -*	*- / -*	*- / 86.033*
Modification Item 2 of 3: PNVC BIG												
B Kits												
Recurring												
PNVC BIG:EQUIPMENT Group B (Active)	- / -	- / -	6 / 2.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 2.000
Subtotal: Recurring	*- / -*	*- / -*	*- / 2.000*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 2.000*
Subtotal: PNVC BIG	*- / -*	*- / -*	*- / 2.000*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 2.000*
Modification Item 3 of 3: PNVC MSD-III												
B Kits												
Recurring												
PNVC MSD-III:EQUIPMENT Group B (Active)	- / -	- / -	9 / 0.464	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 0.464
Subtotal: Recurring	*- / -*	*- / -*	*- / 0.464*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.464*
Subtotal: PNVC MSD-III	*- / -*	*- / -*	*- / 0.464*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.464*
Subtotal: Procurement, All Modification Items	*- / 46.719*	*- / 4.524*	*- / 21.016*	*- / 12.893*	*- / -*	*- / 12.893*	*- / 1.769*	*- / 1.576*	*- / -*	*- / -*	*- / -*	*- / 88.497*
Support *(All Modification Items)*												
GROUP A: TOTAL NONRECURRING	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000
A&AS	- / 0.947	- / 0.147	- / 3.700	- / 1.000	- / -	- / 1.000	- / 0.200	- / 0.000	- / -	- / -	- / -	- / 5.994
OTHER GOVT	- / -	- / 0.002	- / -	- / 0.400	- / -	- / 0.400	- / -	- / -	- / -	- / -	- / -	- / 0.402
Data	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000
Type 1 Training	- / 0.000	- / -	- / -	- / 0.000	- / -	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / 0.000
ICS-Labor	- / 0.000	- / -	- / -	- / 0.000	- / -	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / 0.000
SUPPORT-EQUIP	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / -	- / -	- / -	- / 0.000
Subtotal: Support	*- / 0.947*	*- / 0.149*	*- / 3.700*	*- / 1.400*	*- / -*	*- / 1.400*	*- / 0.200*	*- / 0.000*	*- / -*	*- / -*	*- / -*	*- / 6.396*
Installation												

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** FBLOST / Family of Beyond Line-of-Sight Terminals	**Modification Number / Title:** 1 / Family of Beyond Line-of-Sight Terminals

ID Code (A=Service Ready, B=Not Service Ready) : A | **MDAP/MAIS Code:**

Models of Systems Affected: E-4, E-6 | **Modification Type:** Capability Improvement | **Related RDT&E PEs:** 0303001F, 0303601F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total												
Total Cost (Procurement + Support + Installation)	**47.666**	**4.673**	**24.716**	**14.293**	**0.000**	**14.293**	**1.969**	**1.576**	**0.000**	**0.000**	**-**	**94.893**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** FBLOST / Family of Beyond Line-of-Sight Terminals	**Modification Number / Title:** 1 / Family of Beyond Line-of-Sight Terminals

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 1 of 3: FAB-T

Manufacturer Information

Manufacturer Name: Raytheon

Manufacturer Location: Largo, FL

Administrative Leadtime *(in Months)*: 1

Production Leadtime *(in Months)*: 18

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Apr 2017	Apr 2018	Aug 2019				
Delivery Dates	Oct 2018	Oct 2019	Feb 2021				

Installation Information

Method of Implementation (Organic): Org/Intermediate

Installation Quantity: 25

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** FBLOST / Family of Beyond Line-of-Sight Terminals	**Modification Number / Title:** 1 / Family of Beyond Line-of-Sight Terminals

ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**

Modification Item 2 of 3: PNVC BIG

Manufacturer Information

Manufacturer Name: General Dynamics	Manufacturer Location: Scottsdale, AZ
Administrative Leadtime *(in Months)*: 1	Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Jan 2018					
Delivery Dates		Jan 2019					

Installation Information

Method of Implementation (Organic): Org/Intermediate	**Installation Quantity:** 1

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** FBLOST / Family of Beyond Line-of-Sight Terminals	**Modification Number / Title:** 1 / Family of Beyond Line-of-Sight Terminals

ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**

Modification Item 3 of 3: PNVC MSD-III

Manufacturer Information

Manufacturer Name: Raytheon	Manufacturer Location: Largo, FL
Administrative Leadtime *(in Months)*: 1	Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Jan 2018					
Delivery Dates		Jan 2019					

Installation Information

Method of Implementation (Organic): Org/Intermediate	**Installation Quantity:** 9

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** H00100 / H-1

ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0101235F	**Other Related Program Elements:** 0401314F, 0804747F
Line Item MDAP/MAIS Code: N/A		

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	15.515	9.007	3.730	2.940	0.000	2.940	2.678	2.747	2.804	2.855	-	42.276
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	15.515	9.007	3.730	2.940	0.000	2.940	2.678	2.747	2.804	2.855	-	42.276
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**15.515**	**9.007**	**3.730**	**2.940**	**0.000**	**2.940**	**2.678**	**2.747**	**2.804**	**2.855**	**-**	**42.276**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This line item funds modifications to UH-1N and UH-1H/TH-1H aircraft. The two-engine UH-1N is a light, utility helicopter primarily used for missile site and range support and distinguished visitor airlift support. There are 62 UH-1N aircraft in the inventory. They were built with an estimated service life of 10,000 flight hours and are not service limited due to on-going modifications and upgrades. There are 28 TH-1H aircraft in the inventory. They are used in the helicopter track for USAF Specialized Undergraduate Pilot Training. The TH-1H modernization modification provided a service life of 20 years, the last one was delivered in 2013. Current TH-1H efforts are the Automatic Dependent Surveillance- Broadcast.

Funding may be used to address Diminishing Manufacturing Sources (DMS) issues.

Funding in this exhibit is contained in PE 0101235F, PE 0401314F, and PE 0804747F.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** H06000 / H-60

ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0207224F, 0207228F	**Other Related Program Elements:** 0207224F, 0207228F

Line Item MDAP/MAIS Code: None

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	618.156	94.057	75.989	55.466	40.560	96.026	43.436	43.104	24.591	28.352	0.000	1,023.711
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	618.156	94.057	75.989	55.466	40.560	96.026	43.436	43.104	24.591	28.352	0.000	1,023.711
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**618.156**	**94.057**	**75.989**	**55.466**	**40.560**	**96.026**	**43.436**	**43.104**	**24.591**	**28.352**	**0.000**	**1,023.711**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This line item funds modifications to the HH-60G helicopter. The HH-60G currently supports the Air Force's core function of Personnel Recovery. The primary mission of the HH-60G is to conduct day / night / marginal weather Combat Search and Rescue (CSAR) in order to recover isolated personnel in hostile or permissive environments. Other mission areas include casualty evacuation (CASEVAC), medical evacuation (MEDEVAC), non-combatant evacuation operations, civil search and rescue, international aid, disaster humanitarian relief, and insertion/extraction of combat forces. There are currently 96 aircraft, at 28 years average age, remaining of the original 112 HH-60Gs. The Operational Loss Replacement Mission Modification program will deliver 21 additional aircraft, bringing the fleet size to 117 by FY19.

The modification efforts budgeted in FY19 provide safety/survivability upgrades, mission avionics upgrades, operational loss replacement mission modifications, and addresses obsolescence issues.

Funding may be used to address Diminishing Manufacturing Source issues.

Funding for this exhibit is contained in PE 0207228F.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	39.808	57.602	54.354	40.560	94.914	29.734	30.464	21.341	27.352
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	51.627	15.873	0.171	0.000	0.171	6.594	6.228	1.050	-
AFR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	2.622	2.514	0.941	-	0.941	7.108	6.412	2.200	1.000
Total:	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** H06000 / H-60	
ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0207224F, 0207228F	**Other Related Program Elements:** 0207224F, 0207228F
Line Item MDAP/MAIS Code: None		

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Secondary Distribution	Total Obligation Authority	94.057	75.989	55.466	40.560	96.026	43.436	43.104	24.591	28.352

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft

P-1 Line Item Number / Title:
H06000 / H-60

ID Code (A=Service Ready, B=Not Service Ready): B | **Program Elements for Code B Items:** 0207224F, 0207228F | **Other Related Program Elements:** 0207224F, 0207228F

Line Item MDAP/MAIS Code: None

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)
P-40a***	8254 / ALTITUDE HOLD AND HOVER SYSTEM (AHHS) (Capability Improvement)				- / 35.773	- / 0.010	- / -	- / -	- / -	- / -
P-40a***	8564 / Control Display Unit (CDU) (Capability Improvement)				- / 20.624	- / 0.210	- / 10.800	- / 0.110	- / -	- / 0.110
P-40a***	8565 / Navigation System Upgrade (NSU) (Capability Improvement)				- / 58.372	- / 3.190	- / 2.720	- / 1.210	- / -	- / 1.210
P-40a***	8844 / Multi-function Color Display (Capability Improvement)				- / 35.232	- / 1.259	- / 3.330	- / 3.480	- / -	- / 3.480
P-40a***	8850 / MODE 5 (Capability Improvement)				- / 13.803	- / 8.620	- / 7.354	- / 2.485	- / -	- / 2.485
P-40a***	8851 / Gun Replacement (Reliability & Maintainability)				- / 20.220	- / 5.174	- / -	- / -	- / -	- / -
P-40a***	8852 / CSAR Avionics/Electrical Upgrade (Capability Improvement)				- / 15.777	- / 0.620	- / 0.860	- / 0.780	- / 0.000	- / 0.780
P-40a***	8854 / HH-60 OLR Mission Modifications (Other)				- / 350.772	- / 64.754	- / 38.489	- / 0.400	- / -	- / 0.400
P-40a***	8856 / Block 162 (Service Life Extension)				- / 43.929	- / 1.336	- / 3.125	- / 4.030	- / -	- / 4.030
P-40a***	8857 / Rotor Brake (Capability Improvement)				- / 3.000	- / 0.010	- / -	- / -	- / -	- / -
P-40a***	8862 / HH-60G Communication Suite Control Integration (Capability Improvement)				- / -	- / -	- / 4.490	- / 1.000	- / -	- / 1.000
P-40a***	99999X / Low Cost Modifications (Other)				- / 5.635	- / 0.464	- / 0.920	- / 0.753	- / -	- / 0.753
P-3a	8853 / DEFENSIVE SYSTEM UPGRADE (Capability Improvement)		B		- / 15.019	- / 0.010	- / 0.000	- / 0.000	- / 40.560	- / 40.560
P-3a	8859 / DVE Sensor (Capability Improvement)		B		- / 0.000	- / 0.700	- / 1.240	- / 23.740	- / 0.000	- / 23.740
P-3a	8861 / HH-60 DATALINKS (Capability Improvement)		B		- / -	- / 7.700	- / 2.661	- / 17.478	- / 0.000	- / 17.478
P-40	**Total Gross/Weapon System Cost**				**- / 618.156**	**- / 94.057**	**- / 75.989**	**- / 55.466**	**- / 40.560**	**- / 96.026**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)
P-40a***	8254 / ALTITUDE HOLD AND HOVER SYSTEM (AHHS) (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / 35.783
P-40a***	8564 / Control Display Unit (CDU) (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / 31.744
P-40a***	8565 / Navigation System Upgrade (NSU) (Capability Improvement)				- / 1.210	- / -	- / -	- / -	- / -	- / 66.702
P-40a***	8844 / Multi-function Color Display (Capability Improvement)				- / 2.608	- / -	- / -	- / -	- / -	- / 45.909
P-40a***	8850 / MODE 5 (Capability Improvement)				- / 1.560	- / -	- / -	- / -	- / -	- / 33.822
P-40a***	8851 / Gun Replacement (Reliability & Maintainability)				- / -	- / -	- / -	- / -	- / -	- / 25.394
P-40a***	8852 / CSAR Avionics/Electrical Upgrade (Capability Improvement)				- / 0.324	- / -	- / -	- / -	- / -	- / 18.361
P-40a***	8854 / HH-60 OLR Mission Modifications (Other)				- / 0.300	- / 0.550	- / -	- / -	- / -	- / 455.265
P-40a***	8856 / Block 162 (Service Life Extension)				- / 4.080	- / 4.660	- / 2.000	- / 1.550	- / -	- / 64.710
P-40a***	8857 / Rotor Brake (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / 3.010
P-40a***	8862 / HH-60G Communication Suite Control Integration (Capability Improvement)				- / 4.458	- / 5.400	- / 4.540	- / -	- / -	- / 19.888

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** H06000 / H-60

ID Code (A=Service Ready, B=Not Service Ready): B | **Program Elements for Code B Items:** 0207224F, 0207228F | **Other Related Program Elements:** 0207224F, 0207228F

Line Item MDAP/MAIS Code: None

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a***	99999X / Low Cost Modifications (Other)				- / 1.070	- / 1.430	- / 1.350	- / 1.470	- / -	- / 13.092
P-3a	8853 / DEFENSIVE SYSTEM UPGRADE (Capability Improvement)		B		- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / 55.589
P-3a	8859 / DVE Sensor (Capability Improvement)		B		- / 19.326	- / 23.164	- / 6.066	- / 4.055	- / 0.000	- / 78.291
P-3a	8861 / HH-60 DATALINKS (Capability Improvement)		B		- / 8.500	- / 7.900	- / 10.635	- / 21.277	- / 0.000	- / 76.151
P-40	**Total Gross/Weapon System Cost**				**- / 43.436**	**- / 43.104**	**- / 24.591**	**- / 28.352**	**- / 0.000**	**- / 1,023.711**

*** Although this is an Exhibit P-40a item, the actual exhibit is not included since all of the required information for this item is already being shown here.

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** H06000 / H-60	**Modification Number / Title:** 8853 / DEFENSIVE SYSTEM UPGRADE
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	15.019	0.010	0.000	0.000	40.560	40.560	0.000	0.000	0.000	0.000	-	55.589
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	15.019	0.010	0.000	0.000	40.560	40.560	0.000	0.000	0.000	0.000	-	55.589
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**15.019**	**0.010**	**0.000**	**0.000**	**40.560**	**40.560**	**0.000**	**0.000**	**0.000**	**0.000**	**-**	**55.589**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The HH-60G Pave Hawk helicopter has an approved modification proposal directed by AF Form 1067, SOC 10-252, dated 15 September 2010. Rescues performed in combat highlighted the need to modernize the HH-60G defensive systems. Combat crews require precise, real-time threat information that is fully integrated with existing defensive systems and includes the addition of a Hostile Fire Indicator (HFI). The currently installed systems do not alert the aircrew of rocket propelled grenade or small arms fire, the most common threats encountered in theater. The current method employed to detect these threats is visual detection by the aircrew or via radio notification from a friendly ground party. The HFI System will provide crews the ability to detect ballistic, to include RPG and small arms, fire and react, saving lives and aircraft. The crews will be able to return precise and immediate defensive fire effectively suppressing or destroying the enemy threat, or maneuver to avoid the threat as needed. FY17 funding provides for program management.

FY19 OCO funding will be used to support procurement and installation of 16 HH-60G Missile Warning and Counter Measure system, two color IR systems to allow for coverage of Operation FREEDOM'S SENTINEL (OFS), Operation INHERENT RESOLVE (OIR).

Milestone/Development Status

RDT&E funds are not a component of this effort.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.010	-	-	40.560	40.560	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**0.010**	**0.000**	**0.000**	**40.560**	**40.560**	**0.000**	**0.000**	**0.000**	**0.000**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	P-1 Line Item Number / Title: H06000 / H-60	Modification Number / Title: 8853 / DEFENSIVE SYSTEM UPGRADE
ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:	
Models of Systems Affected: HH-60G	Modification Type: Capability Improvement	Related RDT&E PEs: 0207224F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty (Each) / Total Cost ($ M)	Qty (Each) / Total Cost ($ M)	Qty (Each) / Total Cost ($ M)	Qty (Each) / Total Cost ($ M)	Qty (Each) / Total Cost ($ M)	Qty (Each) / Total Cost ($ M)	Qty (Each) / Total Cost ($ M)	Qty (Each) / Total Cost ($ M)	Qty (Each) / Total Cost ($ M)	Qty (Each) / Total Cost ($ M)	Qty (Each) / Total Cost ($ M)	Qty (Each) / Total Cost ($ M)
Procurement												
Modification Item 1 of 2: AAR-47 kit												
B Kits												
Recurring												
AAR-47 kit:EQUIPMENT Group B (Active)	65 / 9.783	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	65 / 9.783
AAR-47 kit:EQUIPMENT Group B (Guard)	17 / 2.482	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	17 / 2.482
AAR-47 kit:EQUIPMENT Group B (Reserve)	15 / 2.190	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / 2.190
Subtotal: Recurring	- / 14.455	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 14.455
Subtotal: AAR-47 kit	- / 14.455	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 14.455
Modification Item 2 of 2: Missile Warning and Counter Measure Kit												
A Kits												
Recurring												
Missile Warning and Counter Measure Kit:INSTALL KITS Group A (Active)	- / -	- / -	- / -	- / -	16 / 6.256	16 / 6.256	- / -	- / -	- / -	- / -	- / -	16 / 6.256
Subtotal: Recurring	- / -	- / -	- / -	- / -	- / 6.256	- / 6.256	- / -	- / -	- / -	- / -	- / -	- / 6.256
B Kits												
Recurring												
Missile Warning and Counter Measure Kit:EQUIPMENT Group B (Active)	- / -	- / -	- / -	- / -	16 / 24.000	16 / 24.000	- / -	- / -	- / -	- / -	- / -	16 / 24.000
Subtotal: Recurring	- / -	- / -	- / -	- / -	- / 24.000	- / 24.000	- / -	- / -	- / -	- / -	- / -	- / 24.000
Subtotal: Missile Warning and Counter Measure Kit	- / -	- / -	- / -	- / -	- / 30.256	- / 30.256	- / -	- / -	- / -	- / -	- / -	- / 30.256
Subtotal: Procurement, All Modification Items	- / 14.455	- / -	- / -	- / -	- / 30.256	- / 30.256	- / -	- / -	- / -	- / -	- / -	- / 44.711
Support *(All Modification Items)*												
A&AS	- / -	- / -	- / -	- / -	- / 0.144	- / 0.144	- / -	- / -	- / -	- / -	- / -	- / 0.144
ICS-Labor	- / -	- / -	- / -	- / -	- / 4.000	- / 4.000	- / -	- / -	- / -	- / -	- / -	- / 4.000
ICS-Material	- / 0.484	- / 0.010	- / -	- / -	- / 4.000	- / 4.000	- / -	- / -	- / -	- / -	- / -	- / 4.494
PMA - Other Gov't Costs	- / 0.080	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.080
Subtotal: Support	- / 0.564	- / 0.010	- / -	- / -	- / 8.144	- / 8.144	- / -	- / -	- / -	- / -	- / -	- / 8.718
Installation												
Modification Item 2 of 2: Missile Warning and Counter Measure Kit	- / -	- / -	- / -	- / -	16 / 2.160	16 / 2.160	- / -	- / -	- / -	- / -	- / -	16 / 2.160
Subtotal: Installation	- / -	- / -	- / -	- / -	16 / 2.160	16 / 2.160	- / -	- / -	- / -	- / -	- / -	16 / 2.160

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** H06000 / H-60	**Modification Number / Title:** 8853 / DEFENSIVE SYSTEM UPGRADE
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: HH-60G	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0207224F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Total												
Total Cost (Procurement + Support + Installation)	15.019	0.010	0.000	0.000	40.560	40.560	0.000	0.000	0.000	0.000	-	55.589

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** H06000 / H-60	**Modification Number / Title:** 8853 / DEFENSIVE SYSTEM UPGRADE
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 2: AAR-47 kit

Manufacturer Information

Manufacturer Name: ATK	Manufacturer Location: Clearwater FL
Administrative Leadtime *(in Months)*: 3	Production Leadtime *(in Months)*: 33

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation (Organic): Org/Intermediate	**Installation Quantity:** 97

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** H06000 / H-60	**Modification Number / Title:** 8853 / DEFENSIVE SYSTEM UPGRADE
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 2 of 2: Missile Warning and Counter Measure Kit

Manufacturer Information

Manufacturer Name: DRS	Manufacturer Location: FL
Administrative Leadtime *(in Months)*: 3	Production Leadtime *(in Months)*: 8

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates			Jan 2019				
Delivery Dates			Sep 2019				

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	16 / 2.160	16 / 2.160	- / -	- / -	- / -	- / -	- / -	16 / 2.160
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	16 / 2.160	16 / 2.160	- / -	- / -	- / -	- / -	- / -	16 / 2.160

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	16
Out	0	-	-	-	-	-	-	-	-	-	-	-	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	16

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** H06000 / H-60	**Modification Number / Title:** 8859 / DVE Sensor
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	0.700	1.240	23.740	0.000	23.740	19.326	23.164	6.066	4.055	0.000	78.291
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	0.700	1.240	23.740	0.000	23.740	19.326	23.164	6.066	4.055	0.000	78.291
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**0.700**	**1.240**	**23.740**	**0.000**	**23.740**	**19.326**	**23.164**	**6.066**	**4.055**	**0.000**	**78.291**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

A modification proposal (AF Form 1067, ACC 14-161) was received to install Degraded Visual Environment (DVE)/Terrain Awareness and Warning System (TAWS)on HH-60G. The DVE program will add new capability to the HH-60G, increasing mission capability and enhancing safety by providing adequate situational awareness of uncharted terrain/obstacles for safe flight operations in Degraded Visual Environments (DVE). 58% of helicopter losses and 52% of fatalities during Operation Iraqi Freedom, Operation Enduring Freedom are attributable to Control Flight into terrain, wire/object strikes, or hard landings in DVE conditions. The systems integrated and installed by this program will greatly minimize the hazards of DVE ops, preventing mishaps and fatalities. Initiated and validated by AF 1067, the DVE system shall provide aircraft navigation in day and night DVE conditions en-route and in the take-off and landing area with a real time sensor. Aircrew should be able to easily identify hazards such as terrain, antennas, wires, and poles traveling to and from the take-off and landing areas. Aircrew should be able to easily identify take-off and landing area hazards such as poles, vehicles, fence posts, wires, ditches, berms, holes, and large rocks.

This program will modify up to 61 aircraft with DVE sensors. FY17 & FY18 funding will initiate an integration phase of this program, adapting non-developmental sensor systems to the HH-60G platform. FY19 funds will continue the NRE effort, fund testing, and procure an initial production batch of DVE production kits.

Milestone/Development Status

The system will integrate with existing HH-60G optical sensor, display, navigation, and flight management systems to the maximum extent practical. The system shall be composed of line replaceable units that will be supported through the Air Force supply system and replaceable at the organizational level.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.700	1.240	23.740	-	23.740	7.326	12.964	4.266	4.055
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	-	-	-	6.000	5.700	1.050	-
AFR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	-	-	-	6.000	4.500	0.750	-
Total:	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** H06000 / H-60	**Modification Number / Title:** 8859 / DVE Sensor
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Secondary Distribution	Total Obligation Authority	0.700	1.240	23.740	0.000	23.740	19.326	23.164	6.066	4.055

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** H06000 / H-60	**Modification Number / Title:** 8859 / DVE Sensor
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: HH-60G	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0207228F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: DVE												
A Kits												
Recurring												
DVE:INSTALL KITS Group A (Active)	- / -	- / -	0 / 0.000	2 / 0.200	- / -	2 / 0.200	8 / 0.800	17 / 1.700	2 / 0.200	- / -	- / -	29 / 2.900
DVE:INSTALL KITS Group A (Guard)	- / -	- / -	- / -	- / -	- / -	- / -	10 / 1.000	7 / 0.700	- / -	- / -	- / -	17 / 1.700
DVE:INSTALL KITS Group A (Reserve)	- / -	- / -	- / -	- / -	- / -	- / -	10 / 1.000	5 / 0.500	- / -	- / -	- / -	15 / 1.500
Subtotal: Recurring	*- / -*	*- / -*	*- / 0.000*	*- / 0.200*	*- / -*	*- / 0.200*	*- / 2.800*	*- / 2.900*	*- / 0.200*	*- / -*	*- / -*	*- / 6.100*
B Kits												
Recurring												
DVE:EQUIPMENT Group B (Active)	- / -	- / -	0 / 0.000	2 / 1.000	- / -	2 / 1.000	8 / 4.000	17 / 8.500	2 / 1.000	- / -	- / -	29 / 14.500
DVE:EQUIPMENT Group B (Guard)	- / -	- / -	- / -	- / -	- / -	- / -	10 / 5.000	7 / 3.500	- / -	- / -	- / -	17 / 8.500
DVE:EQUIPMENT Group B (Reserve)	- / -	- / -	- / -	- / -	- / -	- / -	10 / 5.000	5 / 2.500	- / -	- / -	- / -	15 / 7.500
Subtotal: Recurring	*- / -*	*- / -*	*- / 0.000*	*- / 1.000*	*- / -*	*- / 1.000*	*- / 14.000*	*- / 14.500*	*- / 1.000*	*- / -*	*- / -*	*- / 30.500*
Subtotal: DVE	*- / -*	*- / -*	*- / 0.000*	*- / 1.200*	*- / -*	*- / 1.200*	*- / 16.800*	*- / 17.400*	*- / 1.200*	*- / -*	*- / -*	*- / 36.600*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / 0.000*	*- / 1.200*	*- / -*	*- / 1.200*	*- / 16.800*	*- / 17.400*	*- / 1.200*	*- / -*	*- / -*	*- / 36.600*
Support *(All Modification Items)*												
GROUP A: TOTAL NONRECURRING	- / -	- / 0.000	- / 0.000	- / 19.000	- / -	- / 19.000	- / -	- / -	- / -	- / -	- / -	- / 19.000
GROUP B: TOTAL NONRECURRING	- / -	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000
OTHER GOVT	- / -	- / 0.350	- / 1.000	- / 2.940	- / -	- / 2.940	- / 1.576	- / 0.914	- / -	- / 3.255	- / -	- / 10.035
PMA - Other Gov't Costs	- / -	- / 0.020	- / 0.040	- / 0.100	- / -	- / 0.100	- / 0.150	- / 0.150	- / 0.050	- / 0.050	- / -	- / 0.560
PMA - Contractor Services	- / -	- / 0.330	- / 0.200	- / 0.500	- / -	- / 0.500	- / 0.500	- / 0.500	- / 0.466	- / 0.450	- / -	- / 2.946
Subtotal: Support	*- / -*	*- / 0.700*	*- / 1.240*	*- / 22.540*	*- / -*	*- / 22.540*	*- / 2.226*	*- / 1.564*	*- / 0.516*	*- / 3.755*	*- / -*	*- / 32.541*
Installation												
Modification Item 1 of 1: DVE	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.300	28 / 4.200	29 / 4.350	2 / 0.300	- / -	61 / 9.150
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*2 / 0.300*	*28 / 4.200*	*29 / 4.350*	*2 / 0.300*	*- / -*	*61 / 9.150*
Total												
Total Cost (Procurement + Support + Installation)	**0.000**	**0.700**	**1.240**	**23.740**	**0.000**	**23.740**	**19.326**	**23.164**	**6.066**	**4.055**	**0.000**	**78.291**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** H06000 / H-60	**Modification Number / Title:** 8859 / DVE Sensor
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 1: DVE

Manufacturer Information

Manufacturer Name: Manufacturer TBD	Manufacturer Location: TBD
Administrative Leadtime *(in Months)*: 3	Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates			Jan 2019	Jan 2020	Jan 2021	Jan 2022	
Delivery Dates			Jan 2020	Jan 2021	Jan 2022	Jan 2023	

Installation Information

Method of Implementation: Depot Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.300	- / -	- / -	- / -	- / -	2 / 0.300
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	28 / 4.200	- / -	- / -	- / -	28 / 4.200
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	29 / 4.350	- / -	- / -	29 / 4.350
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.300	- / -	2 / 0.300
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.300	28 / 4.200	29 / 4.350	2 / 0.300	- / -	61 / 9.150

Installation Schedule

		FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023					
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	9	9	10	-	9	9	11	2	-	-	-	0	61
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	9	9	10	-	9	9	11	2	0	0	0	0	61

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** H06000 / H-60	**Modification Number / Title:** 8861 / HH-60 DATALINKS
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	7.700	2.661	17.478	0.000	17.478	8.500	7.900	10.635	21.277	0.000	76.151
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	7.700	2.661	17.478	0.000	17.478	8.500	7.900	10.635	21.277	0.000	76.151
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**7.700**	**2.661**	**17.478**	**0.000**	**17.478**	**8.500**	**7.900**	**10.635**	**21.277**	**0.000**	**76.151**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This effort increases HH-60G interoperability with rescue escort/C2 assets. Real time access to ISR sensor data enables advance recon of objective area/threats, enhancing situational awareness and PR mission success while reducing risk to the aircrew, para rescue team, and aircraft. Critical equipment to sustain combat rescue capability

Milestone/Development Status

This effort would take advantage of the work completed by the ARC within their Personnel Recovery Situational Awareness (PRSA) effort which is comprised of Blue Force Tracker (BFT) 2, Full Motion Video (FMV), Mission Data Server (MDS) and LINK16

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	7.700	2.661	17.478	-	17.478	8.500	7.900	10.635	21.277
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**7.700**	**2.661**	**17.478**	**0.000**	**17.478**	**8.500**	**7.900**	**10.635**	**21.277**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** H06000 / H-60	**Modification Number / Title:** 8861 / HH-60 DATALINKS
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: HH-60G	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0207228F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Data Link Kit 152												
A Kits												
Recurring												
Data Link Kit 152:INSTALL KITS Group A (Active)	- / -	- / -	- / -	30 / 15.000	- / -	30 / 15.000	8 / 4.000	11 / 5.500	16 / 8.000	- / -	- / -	65 / 32.500
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / 15.000*	*- / -*	*- / 15.000*	*- / 4.000*	*- / 5.500*	*- / 8.000*	*- / -*	*- / -*	*- / 32.500*
B Kits												
Recurring												
Data Link Kit 152:EQUIPMENT Group B (Active)	- / -	- / -	- / -	30 / 1.800	- / -	30 / 1.800	8 / 0.480	11 / 0.660	16 / 0.960	- / -	- / -	65 / 3.900
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / 1.800*	*- / -*	*- / 1.800*	*- / 0.480*	*- / 0.660*	*- / 0.960*	*- / -*	*- / -*	*- / 3.900*
Subtotal: Data Link Kit 152	*- / -*	*- / -*	*- / -*	*- / 16.800*	*- / -*	*- / 16.800*	*- / 4.480*	*- / 6.160*	*- / 8.960*	*- / -*	*- / -*	*- / 36.400*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / -*	*- / 16.800*	*- / -*	*- / 16.800*	*- / 4.480*	*- / 6.160*	*- / 8.960*	*- / -*	*- / -*	*- / 36.400*
Support *(All Modification Items)*												
OTHER GOVT	- / -	- / 7.700	- / 2.121	- / 0.138	- / -	- / 0.138	- / 0.509	- / 0.408	- / 0.046	- / 19.153	- / -	- / 30.075
A&AS	- / -	- / -	- / 0.500	- / 0.500	- / -	- / 0.500	- / 0.500	- / 0.500	- / 0.500	- / 0.500	- / -	- / 3.000
PMA - Other Gov't Costs	- / -	- / -	- / 0.040	- / 0.040	- / -	- / 0.040	- / 0.040	- / 0.040	- / 0.040	- / 0.040	- / -	- / 0.240
Subtotal: Support	*- / -*	*- / 7.700*	*- / 2.661*	*- / 0.678*	*- / -*	*- / 0.678*	*- / 1.049*	*- / 0.948*	*- / 0.586*	*- / 19.693*	*- / -*	*- / 33.315*
Installation												
Modification Item 1 of 1: Data Link Kit 152	- / -	- / -	- / -	- / -	- / -	- / -	30 / 2.971	8 / 0.792	11 / 1.089	16 / 1.584	- / -	65 / 6.436
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*30 / 2.971*	*8 / 0.792*	*11 / 1.089*	*16 / 1.584*	*- / -*	*65 / 6.436*
Total												
Total Cost (Procurement + Support + Installation)	**-**	**7.700**	**2.661**	**17.478**	**0.000**	**17.478**	**8.500**	**7.900**	**10.635**	**21.277**	**0.000**	**76.151**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** H06000 / H-60	**Modification Number / Title:** 8861 / HH-60 DATALINKS

ID Code (A=Service Ready, B=Not Service Ready) : B | **MDAP/MAIS Code:**

Modification Item 1 of 1: Data Link Kit 152

Manufacturer Information

Manufacturer Name: TBD | Manufacturer Location: TBD

Administrative Leadtime *(in Months)*: 3 | Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates			Jan 2019	Jan 2020	Jan 2021	Jan 2022	
Delivery Dates			Jan 2020	Jan 2021	Jan 2022	Jan 2023	

Installation Information

Method of Implementation: Depot Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	30 / 2.971	- / -	- / -	- / -	- / -	30 / 2.971
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 0.792	- / -	- / -	- / -	8 / 0.792
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	11 / 1.089	- / -	- / -	11 / 1.089
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 1.584	- / -	16 / 1.584
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	30 / 2.971	8 / 0.792	11 / 1.089	16 / 1.584	- / -	65 / 6.436

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	-	-	10	10	10	2	2	2	2	3	3	3	2	4	4	4	4	0	65
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	10	10	10	2	2	2	2	3	3	3	2	4	4	4	4	0	65

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods

ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0305220F	**Other Related Program Elements:** 0305220F

Line Item MDAP/MAIS Code: 252

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	465.639	32.045	43.968	23.715	0.000	23.715	4.851	126.340	117.382	106.166	89.085	1,009.191
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	465.639	32.045	43.968	23.715	0.000	23.715	4.851	126.340	117.382	106.166	89.085	1,009.191
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**465.639**	**32.045**	**43.968**	**23.715**	**0.000**	**23.715**	**4.851**	**126.340**	**117.382**	**106.166**	**89.085**	**1,009.191**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The RQ-4 System provides high altitude, deep look, long-endurance Intelligence, Surveillance, and Reconnaissance (ISR) capability that complements space and other airborne collectors during peacetime, crisis, and war-fighting scenarios. The aircraft is an autonomous, high altitude, long-endurance, Remotely Piloted Aircraft (RPA). Currently, the active inventory consists of four (4) Block 20s which have been converted to Battlefield Airborne Communications Nodes (BACN), eighteen (18) Block 30s, and eleven (11) Block 40s. Two (2) additional Block 30s are currently in production with scheduled deliveries in 2018. The ground segment includes the Mission Control Element (MCE) and the Launch Recovery Element (LRE). There are a total of twenty-one (21) active ground segments in the existing RQ-4 inventory. Two (2) additional production LREs were purchased in 2015 and have since been installed. The RQ-4 program will incorporate applicable synergies with other platforms, including the U.S. Navy Triton, and other RPA weapon systems.

The designed service life of the Block 30 RPAs is approximately 25 years with an average service life remaining of 14 years through 2032. The designed service life of the Block 40 RPAs is approximately 25 years with an average service life remaining of 16 years through 2034. The Program Office is exploring options to extend the service life.

The RQ-4B is the successor to the RQ-4A, and is designed to employ 3,000 pounds of payload and enable multi-intelligence (multi-INT) collecting. The RQ-4B has three configurations: Block 20, Block 30, and Block 40. Of the six (6) Block 20s that were built, four (4) remain and have since been converted to BACN. The Block 30 employs the same Enhanced Integrated Sensor Suite (EISS) sensors as the Block 20, and integrates a wide spectrum signals intelligence (SIGINT) sensor, the Airborne Signals Intelligence Payload (ASIP). EISS and ASIP are used simultaneously to create a multi-INT platform. The program will procure and install ISR Payload Adapters (IPAs) on ASIP capable V2 configured Block 30 aircraft which will provide a common air vehicle physical interface with an OMS software layer for payloads. The RQ-4 program will procure MS-177 multi-spectral sensors. The Block 40 integrates the Multi-Platform Radar Technology Insertion Program (MP-RTIP) radar that has GMTI and SAR capability. The support segment includes aerospace ground equipment, tech orders, spares, support equipment, and training to enable operation of the RQ-4 System. To protect production schedules from Diminishing Manufacturing Sources (DMS) and material shortages issues, the program will perform schedule protection buys when appropriate. Funding may be used to alleviate DMS issues for which there are not sufficient Government spares and/or the ability to repair organically or commercially is not viable.

The RQ-4 system will be continually modified to maintain pace with evolving threats and increasing capabilities included in modernization efforts. FY19 funds will support modification efforts to include aircraft mods, enhanced weather capabilities, Mode 5/Automatic Dependent Surveillance-Broadcast (ADS-B), ASIP sensor interoperability enhancements and upgrades, other sensor enhancements, trainers, EISS interoperability enhancements and upgrades, on-board data storage, low cost modifications, retrofit support planning, change requests, structural modifications required to bring the Global Hawk aircraft up to current configurations, other modification efforts to upgrade the Global Hawk fleet, as well as technology insertion activities in support of Better Buying Power initiatives.

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	
ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0305220F	**Other Related Program Elements:** 0305220F
Line Item MDAP/MAIS Code: 252		

In CY2018, P-3A Mod 470020 EISS Enhancements was a new start.
In CY2018, P-3A Mod 470021 ASIP Increment II was a new start.

Funding for this exhibit is contained in PE 0305220F.

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft

P-1 Line Item Number / Title:
HAWK00 / RQ-4 Mods

ID Code (A=Service Ready, B=Not Service Ready): B | **Program Elements for Code B Items:** 0305220F | **Other Related Program Elements:** 0305220F

Line Item MDAP/MAIS Code: 252

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-3a	470001 / GH Aircraft Mods (Capability Improvement)		B		- / 390.463	- / 2.100	- / 1.170	- / 0.805	- / 0.000	- / 0.805
P-3a	470003 / GH Ground Station Mods (Capability Improvement)		A		- / 15.523	- / -	- / -	- / -	- / -	- / -
P-3a	470008 / Enhanced Weather Capability (Capability Improvement)		B		- / 17.071	- / 26.945	- / 3.350	- / -	- / -	- / -
P-3a	470009 / ASIP Increment I (Capability Improvement)		B		- / 34.108	- / 0.000	- / 0.000	- / -	- / -	- / -
P-3a	470010 / SAR (Capability Improvement)		A		- / 3.640	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-3a	470011 / ASIP Install/Calibration (Capability Improvement)		A		- / 4.834	- / 0.000	- / -	- / -	- / -	- / -
P-3a	470012 / MODE 5/ADS-B (Capability Improvement)		B		- / -	- / 0.000	- / 1.338	- / 0.574	- / 0.000	- / 0.574
P-3a	470013 / Sensor Enhancements (Capability Improvement)		A		- / -	- / 0.000	- / 12.680	- / 0.486	- / 0.000	- / 0.486
P-3a	470015 / Ice Protection System (Capability Improvement)		B		- / -	- / -	- / -	- / -	- / -	- / -
P-3a	470016 / ADC/AFS Refresh (Capability Improvement)		B		- / -	- / 0.000	- / 2.070	- / 0.000	- / 0.000	- / 0.000
P-3a	470018 / CSMP (Capability Improvement)		B		- / -	- / -	- / -	- / -	- / -	- / -
P-3a	470019 / Communication Interoperability/Enhancements (Capability Improvement)		A		- / -	- / 3.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-3a	470020 / EISS Enhancements (Capability Improvement)		B		- / -	- / -	- / 3.820	- / 19.850	- / 0.000	- / 19.850
P-3a	470021 / ASIP Increment II (Capability Improvement)		B		- / -	- / 0.000	- / 17.540	- / 0.000	- / 0.000	- / 0.000
P-3a	1 / Low Cost Modifications (Capability Improvement)		B		- / 0.000	- / 0.000	- / 2.000	- / 2.000	- / 0.000	- / 2.000
P-40	**Total Gross/Weapon System Cost**				**- / 465.639**	**- / 32.045**	**- / 43.968**	**- / 23.715**	**- / 0.000**	**- / 23.715**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-3a	470001 / GH Aircraft Mods (Capability Improvement)		B		- / 0.314	- / 5.058	- / 11.124	- / 33.677	- / 4.745	- / 449.456
P-3a	470003 / GH Ground Station Mods (Capability Improvement)		A		- / -	- / -	- / -	- / -	- / -	- / 15.523
P-3a	470008 / Enhanced Weather Capability (Capability Improvement)		B		- / -	- / -	- / -	- / -	- / -	- / 47.366
P-3a	470009 / ASIP Increment I (Capability Improvement)		B		- / -	- / -	- / -	- / -	- / -	- / 34.108
P-3a	470010 / SAR (Capability Improvement)		A		- / 0.000	- / -	- / -	- / -	- / -	- / 3.640
P-3a	470011 / ASIP Install/Calibration (Capability Improvement)		A		- / -	- / -	- / -	- / -	- / -	- / 4.834
P-3a	470012 / MODE 5/ADS-B (Capability Improvement)		B		- / 1.544	- / -	- / -	- / -	- / -	- / 3.456
P-3a	470013 / Sensor Enhancements (Capability Improvement)		A		- / 0.000	- / 0.000	- / -	- / -	- / -	- / 13.166
P-3a	470015 / Ice Protection System (Capability Improvement)		B		- / -	- / 20.888	- / 22.860	- / 3.024	- / 4.170	- / 50.942
P-3a	470016 / ADC/AFS Refresh (Capability Improvement)		B		- / 0.000	- / 7.570	- / 2.910	- / -	- / -	- / 12.550
P-3a	470018 / CSMP (Capability Improvement)		B		- / -	- / 72.574	- / 21.588	- / 13.825	- / 79.170	- / 187.157
P-3a	470019 / Communication Interoperability/Enhancements (Capability Improvement)		A		- / 0.000	- / 0.000	- / -	- / -	- / -	- / 3.000
P-3a	470020 / EISS Enhancements (Capability Improvement)		B		- / 0.993	- / 0.750	- / 0.000	- / -	- / -	- / 25.413

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	
ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0305220F	**Other Related Program Elements:** 0305220F
Line Item MDAP/MAIS Code: 252		

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-3a	470021 / ASIP Increment II (Capability Improvement)		B		- / 0.000	- / 17.500	- / 56.900	- / 53.640	- / -	- / 145.580
P-3a	1 / Low Cost Modifications (Capability Improvement)		B		- / 2.000	- / 2.000	- / 2.000	- / 2.000	- / 1.000	- / 13.000
P-40	**Total Gross/Weapon System Cost**				**- / 4.851**	**- / 126.340**	**- / 117.382**	**- / 106.166**	**- / 89.085**	**- / 1,009.191**

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470001 / GH Aircraft Mods
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	390.463	2.100	1.170	0.805	0.000	0.805	0.314	5.058	11.124	33.677	4.745	449.456
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	390.463	2.100	1.170	0.805	0.000	0.805	0.314	5.058	11.124	33.677	4.745	449.456
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**390.463**	**2.100**	**1.170**	**0.805**	**0.000**	**0.805**	**0.314**	**5.058**	**11.124**	**33.677**	**4.745**	**449.456**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	0.750	-	-	0.000	-	0.000	0.000	0.700	2.737	6.000	0.000	10.187
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Global Hawk System provides high altitude, deep look, long-endurance intelligence, surveillance, and reconnaissance (ISR) capability that complements space and other airborne collectors during peacetime, crisis, and war-fighting scenarios. The aircraft is an autonomous, high altitude, long-endurance, unmanned aircraft system (UAS) and must maintain interoperability with government and commercial communications systems and exploitation nodes within the AF and other DoD systems. The Global Hawk program will incorporate applicable synergies with other platforms, including the U.S. Navy's Triton, and other remotely piloted aircraft (RPA) weapon systems.

The Global Hawk system will be continually modified to maintain pace with evolving threats and increasing capabilities included in modernization efforts. These planned modifications include aircraft, payload, ground station/communications, and other retrofits to incorporate/modify capabilities and maintain interoperability across the RQ-4 mission area. Air Vehicle modifications are written to the Line Replaceable Unit (LRU) level, not the overarching Total Aircraft Breakdown.

This Mod will cover change requests, retrofit planning, Diminishing Manufacturing Source (DMS) retrofits, Integrated Functional Capability retrofits, trainers, contested environment initiatives, test support, other government costs, and program support will also be covered under this Mod. This Mod may also be used to cover the efforts required to bring the early production aircraft (4 total) up to the current operational configuration. The V-1 to V-2 Internal Structural Modifications on four (4) aircraft will permit the series of Integrated Functional Capability retrofits that will align the early production aircraft capability with the existing fleet of Global Hawk aircraft in terms of payload weight, payload location, and electrical loads.

Requirement source: Air Combat Command.

Milestone/Development Status

The RQ-4 program will continue to develop, test and implement aircraft, sensor, communications and ground station performance, interoperability, sustainability and safety enhancements and solutions for implementation on the RQ-4 platform and ground based systems in an effort to maintain and improve aircraft and payload availability effectiveness and reduce life-cycle costs.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470001 / GH Aircraft Mods
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: RQ-4	**Modification Type:** Capability Improvement	**Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Global Hawk Air Craft Mods												
A Kits												
Recurring												
Global Hawk Air Craft Mods:INSTALL KITS Group A (Active)	67 / 3.811	- / -	- / -	- / -	- / -	- / -	- / -	21 / 0.669	8 / 0.245	- / -	- / -	96 / 4.725
Subtotal: Recurring	*- / 3.811*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.669*	*- / 0.245*	*- / -*	*- / -*	*- / 4.725*
B Kits												
Recurring												
Global Hawk Air Craft Mods:EQUIPMENT Group B (Active)	67 / 359.226	- / -	- / -	- / -	- / -	- / -	- / -	21 / 3.345	8 / 1.223	- / -	- / -	96 / 363.794
Subtotal: Recurring	*- / 359.226*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 3.345*	*- / 1.223*	*- / -*	*- / -*	*- / 363.794*
Subtotal: Global Hawk Air Craft Mods	*- / 363.037*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 4.014*	*- / 1.468*	*- / -*	*- / -*	*- / 368.519*
Subtotal: Procurement, All Modification Items	*- / 363.037*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 4.014*	*- / 1.468*	*- / -*	*- / -*	*- / 368.519*
Support *(All Modification Items)*												
Change Orders	- / 1.288	- / 2.000	- / 0.610	- / 0.582	- / -	- / 0.582	- / 0.210	- / 0.095	- / 1.447	- / 26.000	- / 4.745	- / 36.977
Small Mods	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.220	- / 0.690	- / -	- / -	- / 0.910
Mod of Spares	9 / 0.875	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 0.875
OTHER GOVT	- / 5.000	- / 0.100	- / 0.560	- / 0.223	- / -	- / 0.223	- / 0.104	- / 0.283	- / 7.357	- / 7.677	- / -	- / 21.304
Subtotal: Support	*9 / 7.163*	*- / 2.100*	*- / 1.170*	*- / 0.805*	*- / -*	*- / 0.805*	*- / 0.314*	*- / 0.598*	*- / 9.494*	*- / 33.677*	*- / 4.745*	*9 / 60.066*
Installation												
Modification Item 1 of 1: Global Hawk Air Craft Mods	67 / 20.263	- / -	- / -	- / -	- / -	- / -	- / -	21 / 0.446	8 / 0.162	- / -	- / -	96 / 20.871
Subtotal: Installation	*67 / 20.263*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*21 / 0.446*	*8 / 0.162*	*- / -*	*- / -*	*96 / 20.871*
Total												
Total Cost (Procurement + Support + Installation)	**390.463**	**2.100**	**1.170**	**0.805**	**0.000**	**0.805**	**0.314**	**5.058**	**11.124**	**33.677**	**4.745**	**449.456**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470001 / GH Aircraft Mods
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 1: Global Hawk Air Craft Mods

Manufacturer Information

Manufacturer Name: Northrop Grumman	Manufacturer Location: Palmdale, California
Administrative Leadtime *(in Months)*: 3	Production Leadtime *(in Months)*: 6

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates					Jan 2021	Jan 2022	
Delivery Dates					Jul 2021	Jul 2022	

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	67 / 20.263	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	67 / 20.263
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	21 / 0.446	- / -	- / -	- / -	21 / 0.446
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 0.162	- / -	- / -	8 / 0.162
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	67 / 20.263	- / -	- / -	- / -	- / -	- / -	- / -	21 / 0.446	8 / 0.162	- / -	- / -	96 / 20.871

Installation Schedule

		FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023					
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	0	0	0	8	0	0	0	0	0	96
Out	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	0	0	0	8	0	0	0	0	0	96

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470003 / GH Ground Station Mods
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	15.523	-	-	-	-	-	-	-	-	-	-	15.523
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	15.523	-	-	-	-	-	-	-	-	-	-	15.523
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**15.523**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**15.523**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Mod 470003 includes small modifications for the Global Hawk Ground Segment system.

No additional funding requested through the FYDP. Any small modifications will be addressed in the Low Cost Mod line (99999X) or other Mod line.

Milestone/Development Status

Block 10 and 20 are fielded and production is complete. Blocks 30-40 are in development. Block 20 first production lot was awarded in FY04, and entered development test in FY07. Block 40 was awarded in FY06. Ongoing modifications support emerging requirements and reliability, maintainability & availability issues.

Future ground station development blocks support the aircraft Block 30/40 development and fielding schedules. Ongoing modifications support emerging requirements and reliability, maintainability & availability issues.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470003 / GH Ground Station Mods
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: RQ-4	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0305220F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Ground Station Mods												
B Kits												
Recurring												
Ground Station Mods:EQUIPMENT Group B (Active)	19 / 14.100	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	19 / 14.100
Subtotal: Recurring	*- / 14.100*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 14.100*
Subtotal: Ground Station Mods	*- / 14.100*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 14.100*
Subtotal: Procurement, All Modification Items	*- / 14.100*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 14.100*
Support *(All Modification Items)*												
OTHER GOVT	- / 0.523	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.523
Subtotal: Support	*- / 0.523*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.523*
Installation												
Modification Item 1 of 1: Ground Station Mods	19 / 0.900	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	19 / 0.900
Subtotal: Installation	*19 / 0.900*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*19 / 0.900*
Total												
Total Cost (Procurement + Support + Installation)	**15.523**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**15.523**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470003 / GH Ground Station Mods

ID Code (A=Service Ready, B=Not Service Ready) : A | **MDAP/MAIS Code:**

Modification Item 1 of 1: Ground Station Mods

Manufacturer Information

Manufacturer Name: Northrop Grumman | Manufacturer Location: Palmdale, CA

Administrative Leadtime *(in Months)*: 3 | Production Leadtime *(in Months)*: 2

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	19 / 0.900	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	19 / 0.900
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	19 / 0.900	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	19 / 0.900

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	19
Out	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	19

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470008 / Enhanced Weather Capability
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	17.071	26.945	3.350	-	-	-	-	-	-	-	-	47.366
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	17.071	26.945	3.350	-	-	-	-	-	-	-	-	47.366
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**17.071**	**26.945**	**3.350**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**47.366**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	1.614	-	0.000	-	-	-	-	-	-	-	-	1.614
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The RQ-4 program is developing and testing several capability enhancements to provide improved situational awareness and performance in severe weather. The Enhanced Weather Capability program will increase mission capability by fielding the retrofit of onboard Weather Radar, Lightning Diverter Strips, Increased Engine performance, and minor communications enhancements concurrently developed with Weather Radar due to hardware & software development and fielding synergies.

This retrofit includes upgrade kits and installs on the following:
- Thirty-five (35) aircraft: twenty (20) Block 30, eleven (11) Block 40, four (4) Block 20
- Thirteen (13) Launch & Recovery Elements (LRE)
- Eleven (11) Mission Control Elements (MCE)

The sum total of retrofit kits is one hundred twenty-three (123).

Weather Radar, minor communications, and other kits required to field the Enhanced Weather Capability will be procured within this Mod line. Certain modification kits have shorter lead times and can be accomplished quicker than the other retrofits. This impacts the phasing of kit buys and installs throughout the FYDP. Kits may be procured and installed in the same FY.

Requirement source: AF 1067.

Tech Specification placed on contract - 12 Mar 2015
PDR - 21-22 Jul 2015
CDR - 15-16 Sep 2015
Flight Test schedule for all blocks planned May 2016 - Jun 2018
DT Completion - Q3 FY18
Operational Test Complete (All Blocks) - Q4 FY18
IOT&E Completion - N/A

Design requirements and configuration are complete and agreed to through PDR and CDR. Software and Hardware qualification and testing are complete on the Hot Bench and approvals for temporary modification of test aircraft have been completed. The Block 30 aircraft completed developmental ground and flight testing in Jan 2017 and completed Operational Test August 2017. Block 40 Developmental Testing is expected to complete in Q1 of FY18. Battlefield Airborne Communication Node (BACN) Developmental testing will complete in Q3 of FY18.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470008 / Enhanced Weather Capability
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Milestone/Development Status

Developmental flight testing for Block 40 and BACN will extend into Q3 of FY18 due to prioritization of MS-177 in DT and delayed BACN Aircraft availability for test.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470008 / Enhanced Weather Capability
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: RQ-4	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0305220F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0305220F	- / 1.293	- / 2.246	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.539
Procurement												
Modification Item 1 of 2: Group A Install Kits												
A Kits												
Recurring												
Group A Install Kits:INSTALL KITS Group A (Active)	44 / 2.580	63 / 3.233	16 / 0.280	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	123 / 6.093
Subtotal: Recurring	*- / 2.580*	*- / 3.233*	*- / 0.280*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 6.093*
Subtotal: Group A Install Kits	*- / 2.580*	*- / 3.233*	*- / 0.280*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 6.093*
Modification Item 2 of 2: Grp B Equipment												
B Kits												
Recurring												
Grp B Equipment:EQUIPMENT Group B (Active)	44 / 13.657	63 / 21.556	16 / 2.516	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	123 / 37.729
Subtotal: Recurring	*- / 13.657*	*- / 21.556*	*- / 2.516*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 37.729*
Subtotal: Grp B Equipment	*- / 13.657*	*- / 21.556*	*- / 2.516*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 37.729*
Subtotal: Procurement, All Modification Items	*- / 16.237*	*- / 24.789*	*- / 2.796*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 43.822*
Installation												
Modification Item 2 of 2: Grp B Equipment	30 / 0.834	49 / 2.156	44 / 0.554	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	123 / 3.544
Subtotal: Installation	*30 / 0.834*	*49 / 2.156*	*44 / 0.554*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*123 / 3.544*
Total												
Total Cost (Procurement + Support + Installation)	**17.071**	**26.945**	**3.350**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**47.366**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470008 / Enhanced Weather Capability

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 2: Group A Install Kits

Manufacturer Information

Manufacturer Name: Northrop Grumman

Manufacturer Location: Palmdale, California

Administrative Leadtime *(in Months)*: 11

Production Leadtime *(in Months)*: 6

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Sep 2017	Sep 2018					
Delivery Dates	Mar 2018	Mar 2019					

Installation Information

Method of Implementation (Organic): Org/Intermediate

Installation Quantity: 0

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470008 / Enhanced Weather Capability
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 2 of 2: Grp B Equipment

Manufacturer Information

Manufacturer Name: Northrop Grumman	Manufacturer Location: Palmdale, California
Administrative Leadtime *(in Months)*: 11	Production Leadtime *(in Months)*: 6

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Sep 2017	Sep 2018					
Delivery Dates	Mar 2018	Mar 2019					

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	30 / 0.834	14 / 0.752	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	44 / 1.586
FY 2017	- / -	35 / 1.404	28 / 0.504	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	63 / 1.908
FY 2018	- / -	- / -	16 / 0.050	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 0.050
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	30 / 0.834	49 / 2.156	44 / 0.554	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	123 / 3.544

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	30	0	10	19	20	0	11	17	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	123
Out	30	0	10	19	20	0	11	17	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	123

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470009 / ASIP Increment I
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	34.108	0.000	0.000	-	-	-	-	-	-	-	-	34.108
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	34.108	0.000	0.000	-	-	-	-	-	-	-	-	34.108
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**34.108**	**0.000**	**0.000**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**34.108**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Airborne Signals Intelligence Payload (ASIP) Increment 1 incorporates additional signals and integrates advanced collection algorithms to provide increased mission capability. It is a follow-on effort to the ASIP baseline program in compliance with SIGINT Capability Working Group priorities. The retrofit task will be implemented using the rotatable spares concept. Fielding is estimated to start in Jul 2018.

This program retrofits fifteen (15) Block 30 aircraft as well as twelve (12) spare chassis.

Milestone/Development Status

ISR Sensors group (AFLCMC/WINS) will initiate development effort, which will deliver hardware and software for initial testing and DT. The WINS development contract was awarded in Jun 15 with delivery in Nov 16. Global Hawk's NRE effort will support DT and procurement of modification kits. Retrofit kit procurement contract was awarded in Mar 2016.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470009 / ASIP Increment I
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: RQ-4	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0305220F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0305220F	- / 0.123	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.123
Procurement												
Modification Item 1 of 2: Group A Install Kits (2)												
A Kits												
Recurring												
Group A Install Kits:INSTALL KITS Group A (Active)	15 / 1.895	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / 1.895
Subtotal: Recurring	*- / 1.895*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 1.895*
Subtotal: Group A Install Kits (2)	*- / 1.895*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 1.895*
Modification Item 2 of 2: Group B Equipment												
B Kits												
Recurring												
Group B Equipment:EQUIPMENT Group B (Active)	15 / 17.054	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / 17.054
Subtotal: Recurring	*- / 17.054*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 17.054*
Subtotal: Group B Equipment	*- / 17.054*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 17.054*
Subtotal: Procurement, All Modification Items	*- / 18.949*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 18.949*
Support *(All Modification Items)*												
Mod of Spare	12 / 15.159	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 15.159
Subtotal: Support	*12 / 15.159*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*12 / 15.159*
Installation												
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*
Total												
Total Cost (Procurement + Support + Installation)	**34.108**	**0.000**	**0.000**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**34.108**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470009 / ASIP Increment I

ID Code (A=Service Ready, B=Not Service Ready) : B | **MDAP/MAIS Code:**

Modification Item 1 of 2: Group A Install Kits (2)

Manufacturer Information

Manufacturer Name: Northrop Grumman | Manufacturer Location: Palmdale, California

Administrative Leadtime *(in Months)*: 5 | Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation (Organic): Org/Intermediate | **Installation Quantity:** 0

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470009 / ASIP Increment I

ID Code (A=Service Ready, B=Not Service Ready) : B | **MDAP/MAIS Code:**

Modification Item 2 of 2: Group B Equipment

Manufacturer Information

Manufacturer Name: Northrop Grumman | Manufacturer Location: Palmdale, California

Administrative Leadtime *(in Months)*: 5 | Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation (Organic): Org/Intermediate | **Installation Quantity:** 0

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470010 / SAR
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	3.640	0.000	0.000	0.000	0.000	0.000	0.000	-	-	-	-	3.640
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	3.640	0.000	0.000	0.000	0.000	0.000	0.000	-	-	-	-	3.640
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**3.640**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**-**	**-**	**-**	**-**	**3.640**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Synthetic Aperture Radar (SAR) incorporates SAR selectable Point Image Mode, for Detected and Complex Imagery into the Enhanced Integrated Sensor Suite (EISS). Software was developed and incorporated into fielded GH IFC 4.0.1.1. This modification will be implemented on all Block 20 and Block 30 aircraft to include necessary revisions to the technical documentation. The major effort for this modification is updating the Phase Distortion Tables (PDT) of the Enhanced Receiver Exciter Controller (EREC). A total of forty-four (44) ERECs will be rotated back to vendor for PDT update. Installation costs include calibration and other associated costs to update the PDTs.

Milestone/Development Status

The PDT table updates and fielding of ERECs will occur as a rotatable pool with a start date in Q4 FY16.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470010 / SAR
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: RQ-4	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0305220F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Group B Calibration/ Installation												
B Kits												
Recurring												
Group B Calibration/Installation:EQUIPMENT Group B (Active)	44 / 0.910	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	44 / 0.910
Subtotal: Recurring	- / 0.910	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.910
Subtotal: Group B Calibration/Installation	- / 0.910	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.910
Subtotal: Procurement, All Modification Items	- / 0.910	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.910
Installation												
Modification Item 1 of 1: Group B Calibration/Installation	44 / 2.730	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	44 / 2.730
Subtotal: Installation	44 / 2.730	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	44 / 2.730
Total												
Total Cost (Procurement + Support + Installation)	**3.640**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**-**	**-**	**-**	**-**	**3.640**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470010 / SAR
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 1 of 1: Group B Calibration/Installation

Manufacturer Information

Manufacturer Name: Northrop Grumman	Manufacturer Location: Palmdale, California
Administrative Leadtime *(in Months)*: 5	Production Leadtime *(in Months)*: 1

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Contractor Facility

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	44 / 2.730	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	44 / 2.730
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	44 / 2.730	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	44 / 2.730

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	44
Out	44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	44

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470011 / ASIP Install/Calibration
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	4.834	0.000	-	-	-	-	-	-	-	-	-	4.834
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	4.834	0.000	-	-	-	-	-	-	-	-	-	4.834
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**4.834**	**0.000**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4.834**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This program will convert a total of eight (8) Block 30I air vehicles into Block 30M (Airborne Signals Intelligence Payload (ASIP) capable) air vehicles to meet Air Combat Command (ACC) requirements. The original retrofit plan was to convert eleven (11) Block 30I air vehicles into Block 30M capable air vehicles; however, this effort was halted by PB13. As a result, only three (3) of the eleven (11) Block 30Is were retrofitted.

The ASIP retrofit program was never restarted and certain critical Line Replaceable Units (LRUs) were directed to be redistributed within the USAF and cannot be reconstituted. This project will require the installation of Group A hardware at the Contractor facility followed by a significant calibration effort of at least three, 8+ hour flights per air vehicle. The current schedule includes one (1) ASIP provided as Government Furnished Equipment (GFE) by ACC and two (2) Lot 11 ASIP kits (Group A included with kits). These three (3) ASIP units are currently scheduled to install on the last three (3) air vehicles, making them Block 30Ms with the ASIP installed. If any additional ASIP sensors become available, they will also be installed as part of this effort.

Once complete, this effort will result in a minimum of three (3) Block 30M air vehicles, with the remaining quantity being Block 30M capable air vehicles.

Milestone/Development Status

Contract awarded Mar FY16.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470011 / ASIP Install/Calibration
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: RQ-4	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0305220F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Grp A Install Kits (6)												
A Kits												
Recurring												
Grp A Install Kits:INSTALL KITS Group A (Active)	6 / 0.920	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.920
Subtotal: Recurring	*- / 0.920*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.920*
Subtotal: Grp A Install Kits (6)	*- / 0.920*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.920*
Subtotal: Procurement, All Modification Items	*- / 0.920*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.920*
Support *(All Modification Items)*												
Change Orders	- / 2.955	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.955
Subtotal: Support	*- / 2.955*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 2.955*
Installation												
Modification Item 1 of 1: Grp A Install Kits (6)	5 / 0.959	1 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.959
Subtotal: Installation	*5 / 0.959*	*1 / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*6 / 0.959*
Total												
Total Cost (Procurement + Support + Installation)	**4.834**	**0.000**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4.834**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470011 / ASIP Install/Calibration

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 1 of 1: Grp A Install Kits (6)

Manufacturer Information

Manufacturer Name: Northrop Grumman

Manufacturer Location: Palmdale, CA

Administrative Leadtime *(in Months)*: 12

Production Leadtime *(in Months)*: 3

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Contractor Facility

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	5 / 0.959	1 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.959
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	5 / 0.959	1 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.959

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	5	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	6
Out	5	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	6

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470012 / MODE 5/ADS-B
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	0.000	1.338	0.574	0.000	0.574	1.544	-	-	-	-	3.456
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	1.338	0.574	0.000	0.574	1.544	-	-	-	-	3.456
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**1.338**	**0.574**	**0.000**	**0.574**	**1.544**	**-**	**-**	**-**	**-**	**3.456**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Mode 5 is an enhancement to the legacy Mode 4 Identification, Friend or Foe (IFF) which has been in use since the mid-1950s for military identification. Mode 5 provides four graduated levels of data transmission with enhanced security protection and technology advances and includes question and answer identification/classified interrogation, position reporting capability, selective interrogation, and data exchange capability. The National Security Agency and Joint Chiefs of Staff have placed a mandate to replace Mode 4 with Mode 5 as soon as possible.

Automatic Dependent Surveillance-Broadcast (ADS-B) is a function for air vehicles that periodically transmits its state vector (positions/velocities) and other information to air traffic controllers. This allows air traffic controllers to know where the platform is as it enters a specific air space. Mode S, which gives more detailed information on the identity of aircraft to the air traffic controller, is also being implemented with this upgrade. ADS-B supports improved use of airspace and enhanced safety, and is required for use in the European theater by the International Civil Aviation Organization (European FAA). The Federal Aviation Agency (FAA) and DoD have mandated implementation by 1 January 2020. Global Hawk will turn off ADS-B when entering a military theater.

This program will retrofit thirty-five (35) aircraft: four (4) Block 20, twenty (20) Block 30, and eleven (11) Block 40 aircraft.

Projected milestones:
SRR - Completed Jun 2016
CDR - Completed Nov 2016
DT Begins - May 2018
FOT&E Begins - Mar 2019
Retrofit/Fielding Complete - FY20

Milestone/Development Status

Contract was awarded Mar 2016. Development is underway with a projected 30 month period of performance. The development will progress to a stage where the Contractor will be able to release documentation to commence kitting for retrofit. Therefore, certain retrofit activities will begin prior to full completion of development effort.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470012 / MODE 5/ADS-B
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: RQ-4	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0305220F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0305220F	- / -	- / 0.255	- / 2.839	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.094
Procurement												
Modification Item 1 of 1: Grp B Equipment (2)												
B Kits												
Recurring												
Grp B Equipment:EQUIPMENT Group B (Active)	- / -	- / -	13 / 1.241	6 / 0.499	- / -	6 / 0.499	16 / 1.200	- / -	- / -	- / -	- / -	35 / 2.940
Subtotal: Recurring	*- / -*	*- / -*	*- / 1.241*	*- / 0.499*	*- / -*	*- / 0.499*	*- / 1.200*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 2.940*
Subtotal: Grp B Equipment (2)	*- / -*	*- / -*	*- / 1.241*	*- / 0.499*	*- / -*	*- / 0.499*	*- / 1.200*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 2.940*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / 1.241*	*- / 0.499*	*- / -*	*- / 0.499*	*- / 1.200*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 2.940*
Support *(All Modification Items)*												
Change Orders	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.104	- / -	- / -	- / -	- / -	- / 0.104
Subtotal: Support	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.104*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.104*
Installation												
Modification Item 1 of 1: Grp B Equipment (2)	- / -	- / -	13 / 0.097	6 / 0.075	- / -	6 / 0.075	16 / 0.240	- / -	- / -	- / -	- / -	35 / 0.412
Subtotal: Installation	*- / -*	*- / -*	*13 / 0.097*	*6 / 0.075*	*- / -*	*6 / 0.075*	*16 / 0.240*	*- / -*	*- / -*	*- / -*	*- / -*	*35 / 0.412*
Total												
Total Cost (Procurement + Support + Installation)	**-**	**0.000**	**1.338**	**0.574**	**0.000**	**0.574**	**1.544**	**-**	**-**	**-**	**-**	**3.456**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470012 / MODE 5/ADS-B
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 1: Grp B Equipment (2)

Manufacturer Information

Manufacturer Name: Northrop Grumman	Manufacturer Location: Palmdale, California
Administrative Leadtime *(in Months)*: 10	Production Leadtime *(in Months)*: 1

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Aug 2018	Aug 2019	Aug 2020			
Delivery Dates		Sep 2018	Sep 2019	Sep 2020			

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	13 / 0.097	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	13 / 0.097
FY 2019	- / -	- / -	- / -	6 / 0.075	- / -	6 / 0.075	- / -	- / -	- / -	- / -	- / -	6 / 0.075
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	16 / 0.240	- / -	- / -	- / -	- / -	16 / 0.240
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	13 / 0.097	6 / 0.075	- / -	6 / 0.075	16 / 0.240	- / -	- / -	- / -	- / -	35 / 0.412

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	13	-	-	-	6	-	-	-	16	-	-	-	-	-	-	-	-	-	-	-	-	0	35
Out	0	-	-	-	-	-	-	-	13	-	-	-	6	-	-	-	16	-	-	-	-	-	-	-	-	-	-	-	-	0	35

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470013 / Sensor Enhancements
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	0.000	12.680	0.486	0.000	0.486	0.000	0.000	-	-	-	13.166
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	12.680	0.486	0.000	0.486	0.000	0.000	-	-	-	13.166
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**12.680**	**0.486**	**0.000**	**0.486**	**0.000**	**0.000**	**-**	**-**	**-**	**13.166**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	0.000	0.000	-	0.000	-	-	-	-	-	0.000
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This modification program includes the purchase and installation of twelve (12) Intelligence, Surveillance and Reconnaissance (ISR) Payload Adapters (IPAs). IPAs provide a common air vehicle physical interface with an OMS software layer for payloads which is expected to provide reduced cost and schedule air vehicle integration. IPAs to be installed on Airborne Signals Intelligence Payload (ASIP) capable V2 configured aircraft.

Note: FY18 quantity currently reflects the procurement and installation of six (6) IPAs, as reflected in the FY18PB documentation. Due to program priorities and contractual lead times, the quantity delta of six (6) IPAs originally planned to be procured and installed with FY17 funds will now also be funded with FY18 funds or addressed in a future budget cycle, if required.

Requirement source: CPD.

Milestone/Development Status

No major development effort required to procure and install IPAs onto the aircraft.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470013 / Sensor Enhancements
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: RQ-4	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0305220F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 2: Grp A Install Kits												
A Kits												
Recurring												
Grp A Install Kits:INSTALL KITS Group A (Active)	- / -	- / -	6 / 0.900	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	6 / 0.900
Subtotal: Recurring	*- / -*	*- / -*	*- / 0.900*	*- / 0.000*	*- / -*	*- / 0.000*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.900*
Subtotal: Grp A Install Kits	*- / -*	*- / -*	*- / 0.900*	*- / 0.000*	*- / -*	*- / 0.000*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.900*
Modification Item 2 of 2: Grp B Equipment (3)												
B Kits												
Recurring												
Grp B Equipment:EQUIPMENT Group B (Active)	- / -	- / -	6 / 11.100	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	6 / 11.100
Subtotal: Recurring	*- / -*	*- / -*	*- / 11.100*	*- / 0.000*	*- / -*	*- / 0.000*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 11.100*
Subtotal: Grp B Equipment (3)	*- / -*	*- / -*	*- / 11.100*	*- / 0.000*	*- / -*	*- / 0.000*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 11.100*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / 12.000*	*- / 0.000*	*- / -*	*- / 0.000*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 12.000*
Support *(All Modification Items)*												
Change Orders	- / -	- / -	- / -	- / 0.486	- / -	- / 0.486	- / -	- / -	- / -	- / -	- / -	- / 0.486
Subtotal: Support	*- / -*	*- / -*	*- / -*	*- / 0.486*	*- / -*	*- / 0.486*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.486*
Installation												
Modification Item 2 of 2: Grp B Equipment (3)	- / -	- / -	6 / 0.680	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.680
Subtotal: Installation	*- / -*	*- / -*	*6 / 0.680*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*6 / 0.680*
Total												
Total Cost (Procurement + Support + Installation)	**-**	**0.000**	**12.680**	**0.486**	**0.000**	**0.486**	**0.000**	**0.000**	**-**	**-**	**-**	**13.166**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470013 / Sensor Enhancements
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 1 of 2: Grp A Install Kits

Manufacturer Information

Manufacturer Name: Northrop Grumman	Manufacturer Location: Palmdale, California
Administrative Leadtime *(in Months)*: 10	Production Leadtime *(in Months)*: 1

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Aug 2018					
Delivery Dates		Sep 2018					

Installation Information

Method of Implementation (Organic): Org/Intermediate	**Installation Quantity:** 0

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470013 / Sensor Enhancements
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 2 of 2: Grp B Equipment (3)

Manufacturer Information

Manufacturer Name: Northrop Grumman	Manufacturer Location: Palmdale, California
Administrative Leadtime *(in Months)*: 10	Production Leadtime *(in Months)*: 1

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Aug 2018					
Delivery Dates		Sep 2018					

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	6 / 0.680	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.680
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	6 / 0.680	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.680

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	0	0	0	6	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	6
Out	0	-	-	-	-	0	0	0	6	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	6

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470015 / Ice Protection System
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	-	-	-	-	-	-	20.888	22.860	3.024	4.170	50.942
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	-	-	-	-	-	20.888	22.860	3.024	4.170	50.942
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**20.888**	**22.860**	**3.024**	**4.170**	**50.942**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	1.376	2.282	2.060	1.210	0.310	7.238
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The GH program is pursuing an ice protection system, to include software updates to the IMMC and a potential engine inlet solution which will allow the GH to fly through light icing with no engine or altitude limitations as well as inadvertent encounters with moderate icing. Once software testing and improvements are complete, a decision will be made with regards to the necessity of an engine inlet solution for minor development and testing. Fleet wide software and hardware retrofits will follow decision.

This program will retrofit a total of thirty-four (34) aircraft including three (3) Block 20, twenty (20) Block 30, and eleven (11) Block 40 aircraft.

Estimated DT&E completion: Dec 2020
Estimated IOT&E completion: Feb 2021
Estimated OT&E completion: Apr 2021

The GH program is currently undergoing software testing to investigate the need for a technical solution to provide an ice protection system. Under the assumption a software fix can allow for safe transit, many program dollars can be saved and reallocated across the platform.

Milestone/Development Status

The GH program is currently investigating the potential technical solutions to provide an ice protection system. The selection of the technical solution and requirements development for an engine inlet ice protection system will be in FY18. Planned milestones include the Preliminary Design Review (PDR) in Jul 2018, and the Critical Design Review (CDR) in Nov 2019.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470015 / Ice Protection System
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: RQ-4	**Modification Type:** Capability Improvement	**Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 2: Group B Equipment (2)												
B Kits												
Recurring												
Group B Equipment:EQUIPMENT Group B (Active)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 14.606	14 / 13.480	2 / 1.492	2 / 2.992	34 / 32.570
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 14.606*	*- / 13.480*	*- / 1.492*	*- / 2.992*	*- / 32.570*
Subtotal: Group B Equipment (2)	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 14.606*	*- / 13.480*	*- / 1.492*	*- / 2.992*	*- / 32.570*
Modification Item 2 of 2: Grp A Install Kits (2)												
A Kits												
Recurring												
Grp A Install Kits:INSTALL KITS Group A (Active)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 2.191	14 / 2.022	2 / 0.432	2 / 0.449	34 / 5.094
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 2.191*	*- / 2.022*	*- / 0.432*	*- / 0.449*	*- / 5.094*
Subtotal: Grp A Install Kits (2)	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 2.191*	*- / 2.022*	*- / 0.432*	*- / 0.449*	*- / 5.094*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 16.797*	*- / 15.502*	*- / 1.924*	*- / 3.441*	*- / 37.664*
Support *(All Modification Items)*												
OTHER GOVT	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.000	- / 3.000	- / -	- / -	- / 5.000
Change Orders	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.091	- / 3.108	- / -	- / -	- / 5.199
Subtotal: Support	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 4.091*	*- / 6.108*	*- / -*	*- / -*	*- / 10.199*
Installation												
Modification Item 1 of 2: Group B Equipment (2)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 1.250	14 / 1.100	4 / 0.729	34 / 3.079
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*16 / 1.250*	*14 / 1.100*	*4 / 0.729*	*34 / 3.079*
Total												
Total Cost (Procurement + Support + Installation)	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**20.888**	**22.860**	**3.024**	**4.170**	**50.942**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470015 / Ice Protection System
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 2: Group B Equipment (2)

Manufacturer Information

Manufacturer Name: Northrop Grumman	Manufacturer Location: Palmdale, California
Administrative Leadtime *(in Months)*: 3	Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates					Jan 2021	Jan 2022	Jan 2023
Delivery Dates					Jan 2022	Jan 2023	Jan 2024

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 1.250	- / -	- / -	16 / 1.250
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	14 / 1.100	- / -	14 / 1.100
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.299	2 / 0.299
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.430	2 / 0.430
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 1.250	14 / 1.100	4 / 0.729	34 / 3.079

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	0	5	5	6	0	4	5	5	4	34
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	0	5	5	6	0	4	5	5	4	34

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470015 / Ice Protection System

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 2 of 2: Grp A Install Kits (2)

Manufacturer Information

Manufacturer Name: N/A

Manufacturer Location: N/A

Administrative Leadtime *(in Months)*:

Production Leadtime *(in Months)*:

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation (Organic): Org/Intermediate

Installation Quantity: 0

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470016 / ADC/AFS Refresh
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	0.000	2.070	0.000	0.000	0.000	0.000	7.570	2.910	-	-	12.550
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	2.070	0.000	0.000	0.000	0.000	7.570	2.910	-	-	12.550
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**2.070**	**0.000**	**0.000**	**0.000**	**0.000**	**7.570**	**2.910**	**-**	**-**	**12.550**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	1.770	-	-	1.770
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The onboard data recorder is a Commercial off the Shelf (COTS) line replaceable unit that provides the necessary interfaces, storage, and processing resources to record all forms (except SIGINT) of Global Hawk sensor data on board the unmanned aerial vehicle (UAV) with minimal impact to the aircraft communication, flight control, and avionics systems. The proposed recorder is an upgrade to the existing recorder (Air Data Computer) which is block specific. It has the potential to record platform data as well. This program will retrofit sixteen (16) units. Initial spares will also be procured as documented in the Initial Spares Justification documentation.

The Airborne File Server (AFS) retrofit will be included in an Integrated Functional Capability (IFC) program within Global Hawk. Retrofit quantities for AFS are now required beginning in FY21.

Requirement source: CPD

Projected PDR: May 2019
Projected CDR: Sept 2019
Projected DTE: Aug 2020
Projected OTE: Feb 2021

Milestone/Development Status

The airborne data storage device (AFS) is currently in the requirements development phase. The current plan is to integrate and test an airborne file server as part of the MS-177 sensor enhancement program. The objective is to field an airborne storage solution capable of meeting the storage needs of sensors on all blocks of GH air vehicles.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470016 / ADC/AFS Refresh
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: RQ-4	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0305220F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0305220F	- / -	- / -	- / -	- / 7.400	- / -	- / 7.400	- / 16.490	- / -	- / -	- / -	- / -	- / 23.890
Procurement												
Modification Item 1 of 2: Grp A Install Kits (3)												
A Kits												
Recurring												
Grp A Install Kits:INSTALL KITS Group A (Active)	- / -	- / -	6 / 0.189	- / -	- / -	- / -	- / -	10 / 0.500	- / -	- / -	- / -	16 / 0.689
Subtotal: Recurring	*- / -*	*- / -*	*- / 0.189*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.500*	*- / -*	*- / -*	*- / -*	*- / 0.689*
Subtotal: Grp A Install Kits (3)	*- / -*	*- / -*	*- / 0.189*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.500*	*- / -*	*- / -*	*- / -*	*- / 0.689*
Modification Item 2 of 2: Grp B Equipment (4)												
B Kits												
Recurring												
Grp B Equipment:EQUIPMENT Group B (Active)	- / -	- / -	6 / 1.702	- / -	- / -	- / -	- / -	10 / 3.500	- / -	- / -	- / -	16 / 5.202
Subtotal: Recurring	*- / -*	*- / -*	*- / 1.702*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 3.500*	*- / -*	*- / -*	*- / -*	*- / 5.202*
Subtotal: Grp B Equipment (4)	*- / -*	*- / -*	*- / 1.702*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 3.500*	*- / -*	*- / -*	*- / -*	*- / 5.202*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / 1.891*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 4.000*	*- / -*	*- / -*	*- / -*	*- / 5.891*
Support *(All Modification Items)*												
Change Orders	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.395	- / 2.910	- / -	- / -	- / 6.305
Subtotal: Support	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 3.395*	*- / 2.910*	*- / -*	*- / -*	*- / 6.305*
Installation												
Modification Item 2 of 2: Grp B Equipment (4)	- / -	- / -	6 / 0.179	- / -	- / -	- / -	- / -	10 / 0.175	- / -	- / -	- / -	16 / 0.354
Subtotal: Installation	*- / -*	*- / -*	*6 / 0.179*	*- / -*	*- / -*	*- / -*	*- / -*	*10 / 0.175*	*- / -*	*- / -*	*- / -*	*16 / 0.354*
Total												
Total Cost (Procurement + Support + Installation)	**-**	**0.000**	**2.070**	**0.000**	**0.000**	**0.000**	**0.000**	**7.570**	**2.910**	**-**	**-**	**12.550**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470016 / ADC/AFS Refresh

ID Code (A=Service Ready, B=Not Service Ready) : B | **MDAP/MAIS Code:**

Modification Item 1 of 2: Grp A Install Kits (3)

Manufacturer Information

Manufacturer Name: Northrop Grumman | Manufacturer Location: Palmdale, California

Administrative Leadtime *(in Months)*: 8 | Production Leadtime *(in Months)*: 2

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Jun 2018			Jun 2021		
Delivery Dates		Aug 2018			Aug 2021		

Installation Information

Method of Implementation (Organic): Org/Intermediate | **Installation Quantity:** 0

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470016 / ADC/AFS Refresh
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 2 of 2: Grp B Equipment (4)

Manufacturer Information

Manufacturer Name: Northrop Grumman	Manufacturer Location: Palmdale, California
Administrative Leadtime *(in Months)*: 8	Production Leadtime *(in Months)*: 2

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Jun 2018			Jun 2021		
Delivery Dates		Aug 2018			Aug 2021		

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	6 / 0.179	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.179
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 0.175	- / -	- / -	- / -	10 / 0.175
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	6 / 0.179	- / -	- / -	- / -	- / -	10 / 0.175	- / -	- / -	- / -	16 / 0.354

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	-	-	-	-	0	16
Out	0	-	-	-	-	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	-	-	-	-	0	16

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470018 / CSMP
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	-	-	-	-	-	-	72.574	21.588	13.825	79.170	187.157
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	-	-	-	-	-	72.574	21.588	13.825	79.170	187.157
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**72.574**	**21.588**	**13.825**	**79.170**	**187.157**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	7.246	14.600	14.338	9.130	45.314
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Current Global Hawk communications operate using serial bit stream communications. Future operations and interoperability will require a new IP-based communications system in order to boost interoperability, eliminate legacy Diminishing Manufacturing Sources (DMS) communications systems, and provide new communications capabilities to the Global Hawk system. The Communications System Modernization Program (CSMP) will result in the upgrade of legacy GH communications systems to satisfy USAF long-term operational effectiveness, suitability, and flexibility objectives. Program Protection will also be included within this Mod line.

This program retrofits all GH air vehicles, cockpits, and associated communication system equipment.

Milestone/Development Status

The developmental portion of the CSMP effort will begin in FY18 with a program study which intends to address legacy DMS issues, increased interoperability with external users, and examine the possibilities of adding new capabilities to the Global Hawk system as well as analyze challenges to implementing an Open System Architecture for GH communication systems.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470018 / CSMP
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: RQ-4	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0305220F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0305220F	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 60.234	- / 58.933	- / 56.267	- / -	- / 175.434
Procurement												
Modification Item 1 of 2: Group A Install Kits (3)												
A Kits												
Recurring												
Group A Install Kits:INSTALL KITS Group A (Active)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	11 / 11.330	3 / 3.090	2 / 1.060	12 / 9.491	28 / 24.971
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 11.330*	*- / 3.090*	*- / 1.060*	*- / 9.491*	*- / 24.971*
Subtotal: Group A Install Kits (3)	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 11.330*	*- / 3.090*	*- / 1.060*	*- / 9.491*	*- / 24.971*
Modification Item 2 of 2: Group B Equipment (3)												
B Kits												
Recurring												
Group B Equipment:EQUIPMENT Group B (Active)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	11 / 57.629	3 / 15.390	2 / 11.565	12 / 64.844	28 / 149.428
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 57.629*	*- / 15.390*	*- / 11.565*	*- / 64.844*	*- / 149.428*
Subtotal: Group B Equipment (3)	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 57.629*	*- / 15.390*	*- / 11.565*	*- / 64.844*	*- / 149.428*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 68.959*	*- / 18.480*	*- / 12.625*	*- / 74.335*	*- / 174.399*
Installation												
Modification Item 1 of 2: Group A Install Kits (3)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 3.615	6 / 3.108	2 / 1.200	13 / 4.835	28 / 12.758
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*7 / 3.615*	*6 / 3.108*	*2 / 1.200*	*13 / 4.835*	*28 / 12.758*
Total												
Total Cost (Procurement + Support + Installation)	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**72.574**	**21.588**	**13.825**	**79.170**	**187.157**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470018 / CSMP
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 2: Group A Install Kits (3)

Manufacturer Information

Manufacturer Name: Northrop Grumman	Manufacturer Location: Palmdale, California
Administrative Leadtime *(in Months)*: 3	Production Leadtime *(in Months)*: 5

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates					Jan 2021	Jan 2022	Jan 2023
Delivery Dates					Jun 2021	Jun 2022	Jun 2023

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 3.615	4 / 2.200	- / -	- / -	11 / 5.815
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.908	1 / 0.600	- / -	3 / 1.508
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.600	1 / 0.650	2 / 1.250
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 4.185	12 / 4.185
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 3.615	6 / 3.108	2 / 1.200	13 / 4.835	28 / 12.758

Installation Schedule

		FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023					
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	3	4	0	0	4	2	0	0	1	1	13	28
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	3	4	0	0	4	2	0	0	1	1	13	28

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470018 / CSMP

ID Code (A=Service Ready, B=Not Service Ready) : B | **MDAP/MAIS Code:**

Modification Item 2 of 2: Group B Equipment (3)

Manufacturer Information

Manufacturer Name: Northrop Grumman | Manufacturer Location: Palmdale, California

Administrative Leadtime *(in Months)*: 3 | Production Leadtime *(in Months)*: 5

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates					Jan 2021	Jan 2022	Jan 2023
Delivery Dates					Jun 2021	Jun 2022	Jun 2023

Installation Information

Method of Implementation (Organic): Org/Intermediate | **Installation Quantity:** 0

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470019 / Communication Interoperability/ Enhancements
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	3.000	0.000	0.000	0.000	0.000	0.000	0.000	-	-	-	3.000
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	3.000	0.000	0.000	0.000	0.000	0.000	0.000	-	-	-	3.000
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**3.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**-**	**-**	**-**	**3.000**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

In order to support multiple worldwide missions for remote split operations (RSO), a long-term SATCOM reach back capability is required. RSO dictate the need for a secure SATCOM C3 long-haul transmission capability enabling the physical separation of the SATCOM wideband antenna from the Mission Control Element (MCE). This solution must support use of all Ku and ETP antennae authorized for use with Global Hawk. The expected result of this capability allows the transmission of C3 over existing long haul circuitry using ATM and Ethernet, enabling the needed geographical separation required to conduct worldwide RSO.

In order to accommodate the communication interoperability/enhancements long term technical solution for reach-back monitoring and address the diminishing manufacturing source (DMS) for the AP4000, there's a need for a reach-back capability upgrade pair that replaces both the AP4000 and Broadmore 500.

This project will replace the AP4000 and Broadmore 500s in the MCEs and Launch Recovery Elements (LRE) with a pair of reach-back capability upgrades. This will address the short term diminishing manufacturing source for the AP4000s and also enable a long term technical solution for reach-back monitoring.

The Global Hawk Program office has an existing relationship with the Space and Naval Warfare Systems Command (SPAWAR), which will allow for the fastest and least expensive method to purchase and install the equipment. Funding will also be used to update documentation through the Contractor.

SPAWAR will purchase all equipment, parts, and materials required for thirty-four (34) upgrades.

Milestone/Development Status

Development installation, test, and checkout to be accomplished in 2017. The production assets can be purchased prior to full completion of development work.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470019 / Communication Interoperability/ Enhancements
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: RQ-4	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0305220F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 2: Group B Equipment (4)												
B Kits												
Recurring												
Group B Equipment:EQUIPMENT Group B (Active)	- / -	34 / 1.750	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	34 / 1.750
Subtotal: Recurring	- / -	- / 1.750	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.750
Subtotal: Group B Equipment (4)	- / -	- / 1.750	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.750
Modification Item 2 of 2: Grp A Install Kits (5)												
A Kits												
Recurring												
Grp A Install Kits:INSTALL KITS Group A (Active)	- / -	34 / 0.450	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	34 / 0.450
Subtotal: Recurring	- / -	- / 0.450	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.450
Subtotal: Grp A Install Kits (5)	- / -	- / 0.450	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.450
Subtotal: Procurement, All Modification Items	- / -	- / 2.200	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.200
Support *(All Modification Items)*												
Change Orders	- / -	- / 0.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.500
Subtotal: Support	- / -	- / 0.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.500
Installation												
Modification Item 1 of 2: Group B Equipment (4)	- / -	34 / 0.300	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	34 / 0.300
Subtotal: Installation	- / -	34 / 0.300	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	34 / 0.300
Total												
Total Cost (Procurement + Support + Installation)	-	3.000	0.000	0.000	0.000	0.000	0.000	0.000	-	-	-	3.000

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470019 / Communication Interoperability/ Enhancements

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 1 of 2: Group B Equipment (4)

Manufacturer Information

Manufacturer Name: Northrop Grumman

Manufacturer Location: Palmdale, California

Administrative Leadtime *(in Months)*: 10

Production Leadtime *(in Months)*: 1

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Aug 2017						
Delivery Dates	Sep 2017						

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	34 / 0.300	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	34 / 0.300
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	34 / 0.300	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	34 / 0.300

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	0	0	0	34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	34
Out	0	0	0	0	34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	34

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470019 / Communication Interoperability/ Enhancements

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 2 of 2: Grp A Install Kits (5)

Manufacturer Information

Manufacturer Name: Northrop Grumman

Manufacturer Location: Palmdale, California

Administrative Leadtime *(in Months)*: 10

Production Leadtime *(in Months)*: 1

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Aug 2017						
Delivery Dates	Sep 2017						

Installation Information

Method of Implementation (Organic): Org/Intermediate

Installation Quantity: 0

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470020 / EISS Enhancements
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	-	3.820	19.850	0.000	19.850	0.993	0.750	0.000	-	-	25.413
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	3.820	19.850	0.000	19.850	0.993	0.750	0.000	-	-	25.413
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**3.820**	**19.850**	**0.000**	**19.850**	**0.993**	**0.750**	**0.000**	**-**	**-**	**25.413**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	0.000	0.840	-	0.840	-	-	-	-	-	0.840
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The RQ-4 program is developing and testing several capability enhancements within the Enhanced Integrated Sensor Suite (EISS) to provide improved Intelligence gathering capabilities and performance. These enhancements will increase mission performance of the Enhanced EO/IR Receiver Unit (EERU) by fielding the retrofit of a new Electro Optical (EO) camera with greater range and photo gathering ability, higher data transmission rate and increased reliability.

This modification will include an upgrade from 8-bit to 12-bit digital images which increases NIIRS range and improves image quality in hazy atmospheric conditions. Additional performance and capability upgrades include improved resilience to cold storage down to -40 C instead of -10 C, elimination of intermittent noise and interference in images, and a more uniform image plane that will reduce the quilting effect in mosaicked composite images.

This retrofit includes upgrade kits and installs on twenty (20) Block 30 aircraft and seven (7) modifications of spares, Government Furnished Property (GFP) repair, and focus and calibration efforts as required. Also, six (6) Spare 501T cameras will be procured under Budget Program 16, Weapon System RQ-4 UAV procurement exhibits. Installation to be conducted organically. The FY19 quantity and cost shown reflect negotiated contract options. FY18 and prior year data will be revised as needed in future budget cycle.

Note: Additional scope identified in the development effort has impacted the scope and cost of the retrofit and fielding of this modification program. The unit cost increase from FY18 to FY19 as reflected in the funding section can primarily be attributed to this increased scope that addresses updated ACC priorities (new camera, window, mount, and software) as well as the inclusion of two (2) Line Replaceable Units (LRU) and contractor costs required to complete the effort. Previously, this was a DMS upgrade only.

Acquisition information:
Systems Requirement Review (SRR) - Dec 2017
Preliminary Design Review (PDR) - Apr 2018
Critical Design Review (CDR) - Jul 2018
Developmental Test & Evaluation (DTE) completion - Jan 2019
Technical Data Package (TDP) - Apr 2019
Requirement source: Diminishing Manufacturing Source (DMS)

Milestone/Development Status

RTD&E anticipated to last approx. 18-24 months. The objective is to begin retrofit activities immediately after completion of DT/OT in order to minimize any delay to the field.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470020 / EISS Enhancements
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: RQ-4	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0305220F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0305220F	- / -	- / -	5 / 5.811	- / 10.795	- / -	- / 10.795	- / -	- / -	- / -	- / -	- / -	5 / 16.606
Procurement												
Modification Item 1 of 1: Grp B Equipment (6)												
B Kits												
Recurring												
Grp B Equipment:EQUIPMENT Group B (Active)	- / -	- / -	10 / 1.500	20 / 14.528	- / -	20 / 14.528	- / -	- / -	- / -	- / -	- / -	30 / 16.028
Subtotal: Recurring	*- / -*	*- / -*	*- / 1.500*	*- / 14.528*	*- / -*	*- / 14.528*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 16.028*
Subtotal: Grp B Equipment (6)	*- / -*	*- / -*	*- / 1.500*	*- / 14.528*	*- / -*	*- / 14.528*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 16.028*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / 1.500*	*- / 14.528*	*- / -*	*- / 14.528*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 16.028*
Support *(All Modification Items)*												
Change Orders	- / -	- / -	- / -	- / 0.085	- / -	- / 0.085	- / 0.993	- / 0.750	- / -	- / -	- / -	- / 1.828
Data	- / -	- / -	- / -	- / 0.152	- / -	- / 0.152	- / -	- / -	- / -	- / -	- / -	- / 0.152
Mod of Spares	- / -	- / -	11 / 1.500	7 / 5.085	- / -	7 / 5.085	- / -	- / -	- / -	- / -	- / -	18 / 6.585
Subtotal: Support	*- / -*	*- / -*	*11 / 1.500*	*7 / 5.322*	*- / -*	*7 / 5.322*	*- / 0.993*	*- / 0.750*	*- / -*	*- / -*	*- / -*	*18 / 8.565*
Installation												
Modification Item 1 of 1: Grp B Equipment (6)	- / -	- / -	10 / 0.820	20 / 0.000	- / -	20 / 0.000	- / -	- / -	- / -	- / -	- / -	30 / 0.820
Subtotal: Installation	*- / -*	*- / -*	*10 / 0.820*	*20 / 0.000*	*- / -*	*20 / 0.000*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*30 / 0.820*
Total												
Total Cost (Procurement + Support + Installation)	**-**	**-**	**3.820**	**19.850**	**0.000**	**19.850**	**0.993**	**0.750**	**0.000**	**-**	**-**	**25.413**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470020 / EISS Enhancements
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 1: Grp B Equipment (6)

Manufacturer Information

Manufacturer Name: Raytheon Co.	Manufacturer Location: Waltham, MA
Administrative Leadtime *(in Months)*: 3	Production Leadtime *(in Months)*: 3

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Jan 2018	Jan 2019				
Delivery Dates		Apr 2018	Apr 2019				

Installation Information

Method of Implementation: Contractor Facility

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	10 / 0.820	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 0.820
FY 2019	- / -	- / -	- / -	20 / 0.000	- / -	20 / 0.000	- / -	- / -	- / -	- / -	- / -	20 / 0.000
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	10 / 0.820	20 / 0.000	- / -	20 / 0.000	- / -	- / -	- / -	- / -	- / -	30 / 0.820

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	5	5	-	-	10	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	30
Out	0	-	-	-	-	-	-	5	5	-	-	10	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	30

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470021 / ASIP Increment II
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	0.000	17.540	0.000	0.000	0.000	0.000	17.500	56.900	53.640	-	145.580
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	17.540	0.000	0.000	0.000	0.000	17.500	56.900	53.640	-	145.580
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**17.540**	**0.000**	**0.000**	**0.000**	**0.000**	**17.500**	**56.900**	**53.640**	**-**	**145.580**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Airborne Signals Intelligence Payload (ASIP) Increment II expands Communications Intelligence (COMINT) and Electronic Intelligence (ELINT) frequency range, reduces special signals bandwidth, and decreases mission loading time via a new encryptor system. The ASIP Program Office (AFLCMC/WINS) is responsible for the development while the RQ-4B Program Office (AFLCMC/WIG) is responsible for the integration, flight testing, and fielding. This is a follow-on to the ASIP baseline program in compliance with Signal Intelligence (SIGINT) Capability Working Group priorities. ASIP Increment 2 is comprised of two separate builds - Builds A & B. Build A is scheduled to begin in FY18 with Build B projected for an FY22 start date. The time gap between the two builds is primarily due to program priorities. Build A is higher priority and will have lower development risk. The remaining higher risk requirements will be captured with Build B.

This program involves enhancements to Global Hawk ASIP sensor baseline; requires hardware and software changes. This retrofit program will be included in a future Integrated Functional Capability (IFC) program within Global Hawk. Retrofit quantities are now planned for FY21.

This retrofit includes upgrade kits and installs on the following:

Build A - Block 30M: twenty-one (21) aircraft and seven (7) spares.
Build B - Block 30M: fourteen (14) aircraft. Additional quantities will be captured in future

Requirement source: AF 1067

Milestone/Development Status

AFLCMC/WINS program office will perform development. Engineering flights are scheduled to begin in Feb 18, with DT finishing up in Sep 18 and a 53rd Test and Evaluation Group led FDE shortly after DT ends.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470021 / ASIP Increment II
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: RQ-4	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0305220F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0305220F	- / -	- / -	- / 2.950	- / -	- / -	- / -	- / -	- / 5.061	- / 1.283	- / -	- / -	- / 9.294
Procurement												
Modification Item 1 of 2: EQUIPMENT												
B Kits												
Recurring												
EQUIPMENT:EQUIPMENT Group B (Active)	- / -	- / -	14 / 6.490	- / -	- / -	- / -	- / -	14 / 6.490	14 / 45.145	7 / 43.157	- / -	49 / 101.282
Subtotal: Recurring	*- / -*	*- / -*	*- / 6.490*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 6.490*	*- / 45.145*	*- / 43.157*	*- / -*	*- / 101.282*
Subtotal: EQUIPMENT	*- / -*	*- / -*	*- / 6.490*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 6.490*	*- / 45.145*	*- / 43.157*	*- / -*	*- / 101.282*
Modification Item 2 of 2: INSTALL KITS												
A Kits												
Recurring												
INSTALL KITS:INSTALL KITS Group A (Active)	- / -	- / -	14 / 0.811	- / -	- / -	- / -	- / -	14 / 0.811	14 / 3.136	7 / 2.812	- / -	49 / 7.570
Subtotal: Recurring	*- / -*	*- / -*	*- / 0.811*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.811*	*- / 3.136*	*- / 2.812*	*- / -*	*- / 7.570*
Subtotal: INSTALL KITS	*- / -*	*- / -*	*- / 0.811*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.811*	*- / 3.136*	*- / 2.812*	*- / -*	*- / 7.570*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / 7.301*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 7.301*	*- / 48.281*	*- / 45.969*	*- / -*	*- / 108.852*
Support *(All Modification Items)*												
Change Orders	- / -	- / -	- / 3.673	- / -	- / -	- / -	- / -	- / 3.673	- / 5.141	- / 4.948	- / -	- / 17.435
Mod of Spares	- / -	- / -	7 / 4.056	- / -	- / -	- / -	- / -	7 / 4.056	- / -	- / -	- / -	14 / 8.112
OTHER GOVT	- / -	- / -	- / 1.810	- / -	- / -	- / -	- / -	- / 1.770	- / 0.484	- / -	- / -	- / 4.064
Subtotal: Support	*- / -*	*- / -*	*7 / 9.539*	*- / -*	*- / -*	*- / -*	*- / -*	*7 / 9.499*	*- / 5.625*	*- / 4.948*	*- / -*	*14 / 29.611*
Installation												
Modification Item 2 of 2: INSTALL KITS	- / -	- / -	14 / 0.700	- / -	- / -	- / -	- / -	14 / 0.700	14 / 2.994	7 / 2.723	- / -	49 / 7.117
Subtotal: Installation	*- / -*	*- / -*	*14 / 0.700*	*- / -*	*- / -*	*- / -*	*- / -*	*14 / 0.700*	*14 / 2.994*	*7 / 2.723*	*- / -*	*49 / 7.117*
Total												
Total Cost (Procurement + Support + Installation)	**-**	**0.000**	**17.540**	**0.000**	**0.000**	**0.000**	**0.000**	**17.500**	**56.900**	**53.640**	**-**	**145.580**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470021 / ASIP Increment II

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 2: EQUIPMENT

Manufacturer Information

Manufacturer Name: Northrop Grumman

Manufacturer Location: Palmdale, CA

Administrative Leadtime *(in Months)*: 9

Production Leadtime *(in Months)*: 1

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Jul 2018	Jul 2019			Jul 2022	Jul 2023
Delivery Dates		Aug 2018	Aug 2019			Aug 2022	Aug 2023

Installation Information

Method of Implementation (Organic): Org/Intermediate

Installation Quantity: 0

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 470021 / ASIP Increment II
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 2 of 2: INSTALL KITS

Manufacturer Information

Manufacturer Name: Northrop Grumman	Manufacturer Location: Palmdale, CA
Administrative Leadtime *(in Months)*: 9	Production Leadtime *(in Months)*: 1

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Jul 2018	Jul 2019			Jul 2022	Jul 2023
Delivery Dates		Aug 2018	Aug 2019			Aug 2022	Aug 2023

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	14 / 0.700	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	14 / 0.700
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	14 / 0.700	- / -	- / -	- / -	14 / 0.700
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	14 / 2.994	- / -	- / -	14 / 2.994
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 2.723	- / -	7 / 2.723
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	14 / 0.700	- / -	- / -	- / -	- / -	14 / 0.700	14 / 2.994	7 / 2.723	- / -	49 / 7.117

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	14	-	-	-	-	-	-	-	-	-	-	-	14	-	-	-	14	-	-	3	4	0	49
Out	0	-	-	-	-	-	-	-	14	-	-	-	-	-	-	-	-	-	-	-	14	-	-	-	14	-	-	3	4	0	49

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 1 / Low Cost Modifications
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	0.000	2.000	2.000	0.000	2.000	2.000	2.000	2.000	2.000	1.000	13.000
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	0.000	2.000	2.000	0.000	2.000	2.000	2.000	2.000	2.000	1.000	13.000
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**0.000**	**2.000**	**2.000**	**0.000**	**2.000**	**2.000**	**2.000**	**2.000**	**2.000**	**1.000**	**13.000**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The RQ-4 fleet will be continually modified to maintain pace with the evolving threat and the increasing capabilities included in modernization efforts. Six (6) Low Cost modification programs are anticipated and necessary for continued operational support.

Milestone/Development Status

Low cost modifications will be required to correct product deficiencies and improve capabilities on the RQ-4 fleet.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 1 / Low Cost Modifications
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: RQ-4	**Modification Type:** Capability Improvement	**Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 2: Grp A Install Kits (4)												
A Kits												
Recurring												
Grp A Install Kits:INSTALL KITS Group A (Active)	- / -	- / -	1 / 0.200	1 / 0.200	- / -	1 / 0.200	1 / 0.200	1 / 0.200	1 / 0.200	1 / 0.200	- / -	6 / 1.200
Subtotal: Recurring	*- / -*	*- / -*	*- / 0.200*	*- / 0.200*	*- / -*	*- / 0.200*	*- / 0.200*	*- / 0.200*	*- / 0.200*	*- / 0.200*	*- / -*	*- / 1.200*
Subtotal: Grp A Install Kits (4)	*- / -*	*- / -*	*- / 0.200*	*- / 0.200*	*- / -*	*- / 0.200*	*- / 0.200*	*- / 0.200*	*- / 0.200*	*- / 0.200*	*- / -*	*- / 1.200*
Modification Item 2 of 2: Grp B Equipment (5)												
B Kits												
Recurring												
Grp B Equipment:EQUIPMENT Group B (Active)	- / -	- / -	1 / 1.600	1 / 1.600	- / -	1 / 1.600	1 / 1.600	1 / 1.600	1 / 1.600	1 / 1.600	- / -	6 / 9.600
Subtotal: Recurring	*- / -*	*- / -*	*- / 1.600*	*- / 1.600*	*- / -*	*- / 1.600*	*- / 1.600*	*- / 1.600*	*- / 1.600*	*- / 1.600*	*- / -*	*- / 9.600*
Subtotal: Grp B Equipment (5)	*- / -*	*- / -*	*- / 1.600*	*- / 1.600*	*- / -*	*- / 1.600*	*- / 1.600*	*- / 1.600*	*- / 1.600*	*- / 1.600*	*- / -*	*- / 9.600*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / 1.800*	*- / 1.800*	*- / -*	*- / 1.800*	*- / 1.800*	*- / 1.800*	*- / 1.800*	*- / 1.800*	*- / -*	*- / 10.800*
Support *(All Modification Items)*												
Change Orders	- / 0.000	- / 0.000	- / 0.200	- / 0.000	- / -	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.800	- / 1.000
Subtotal: Support	*- / 0.000*	*- / 0.000*	*- / 0.200*	*- / 0.000*	*- / -*	*- / 0.000*	*- / 0.000*	*- / 0.000*	*- / 0.000*	*- / 0.000*	*- / 0.800*	*- / 1.000*
Installation												
Modification Item 1 of 2: Grp A Install Kits (4)	- / -	- / -	- / -	1 / 0.200	- / -	1 / 0.200	1 / 0.200	1 / 0.200	1 / 0.200	1 / 0.200	1 / 0.200	6 / 1.200
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*1 / 0.200*	*- / -*	*1 / 0.200*	*1 / 0.200*	*1 / 0.200*	*1 / 0.200*	*1 / 0.200*	*1 / 0.200*	*6 / 1.200*
Total												
Total Cost (Procurement + Support + Installation)	**0.000**	**0.000**	**2.000**	**2.000**	**0.000**	**2.000**	**2.000**	**2.000**	**2.000**	**2.000**	**1.000**	**13.000**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 1 / Low Cost Modifications
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 2: Grp A Install Kits (4)

Manufacturer Information

Manufacturer Name: Northrop Grumman	Manufacturer Location: Palmdale, California
Administrative Leadtime *(in Months)*: 1	Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Nov 2017	Nov 2018	Nov 2019	Nov 2020	Nov 2021	Nov 2022
Delivery Dates		Nov 2018	Nov 2019	Nov 2020	Nov 2021	Nov 2022	Nov 2023

Installation Information

Method of Implementation: Contractor Facility

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	1 / 0.200	- / -	1 / 0.200	- / -	- / -	- / -	- / -	- / -	1 / 0.200
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.200	- / -	- / -	- / -	- / -	1 / 0.200
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.200	- / -	- / -	- / -	1 / 0.200
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.200	- / -	- / -	1 / 0.200
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.200	- / -	1 / 0.200
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.200	1 / 0.200
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	1 / 0.200	- / -	1 / 0.200	1 / 0.200	1 / 0.200	1 / 0.200	1 / 0.200	1 / 0.200	6 / 1.200

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	1	6
Out	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	1	6

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HAWK00 / RQ-4 Mods	**Modification Number / Title:** 1 / Low Cost Modifications

ID Code (A=Service Ready, B=Not Service Ready) : B | **MDAP/MAIS Code:**

Modification Item 2 of 2: Grp B Equipment (5)

Manufacturer Information

Manufacturer Name: Northrop Grumman | Manufacturer Location: Palmdale, California

Administrative Leadtime *(in Months)*: 1 | Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Nov 2017	Nov 2018	Nov 2019	Nov 2020	Nov 2021	Nov 2022
Delivery Dates		Nov 2018	Nov 2019	Nov 2020	Nov 2021	Nov 2022	Nov 2023

Installation Information

Method of Implementation (Organic): Org/Intermediate | **Installation Quantity:** 0

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications

ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0207224F, 0207230F	**Other Related Program Elements:** 0207224F, 0207230F

Line Item MDAP/MAIS Code: 257

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	86.175	51.317	220.754	37.754	87.900	125.654	5.882	4.015	4.099	4.375	333.664	835.935
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	86.175	51.317	220.754	37.754	87.900	125.654	5.882	4.015	4.099	4.375	333.664	835.935
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**86.175**	**51.317**	**220.754**	**37.754**	**87.900**	**125.654**	**5.882**	**4.015**	**4.099**	**4.375**	**333.664**	**835.935**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

HC/MC-130 Recapitalization will replace and augment the aging USAF fleets of combat rescue HC-130P/N, special operations MC-130E/P/H and AC-130H/U/W aircraft which are experiencing airworthiness, maintainability and operational limitations. This program provides a common baseline configuration aircraft.

The primary mission of the HC/MC-130J aircraft is to provide aerial refueling support to the respective component commanders. In addition to the specialized air refueling support to mission-unique receiver aircraft, the aircraft can provide a specialized mobility capability to position, supply, re-supply and recover specialized ground tactical units. This funding request will support potential DMS and obsolescence solutions,to include if optimal, life of type buys or bridge buys limited to the program of record quantity. The designed service life is 35 years and the average service life remaining is 32.2 years.

The modifications budgeted in FY19 will improve the reliability, maintainability, safety, mission performance, reduce logistics costs, and implement fleet upgrades and enhancements to meet emerging requirements for the HC/MC-130J aircraft and associated training systems.

Funding for this exhibit is contained in PE 0207224F (HC-130J) and PE 0207230F (MC-130J).

Funding may be used to address Diminishing Manufacturing Sources (DMS)issues.

FY17 funding totals include $13.550M for Overseas Contingency Operations.
FY18 funding totals include $153.08M for Overseas Contingency Operations.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	51.317	218.811	37.754	87.900	125.654	5.882	4.015	4.099	4.375
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	1.943	-	-	-	-	-	-	-

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	
ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0207224F, 0207230F	**Other Related Program Elements:** 0207224F, 0207230F
Line Item MDAP/MAIS Code: 257		

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	51.317	220.754	37.754	87.900	125.654	5.882	4.015	4.099	4.375

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications

ID Code (A=Service Ready, B=Not Service Ready): B | **Program Elements for Code B Items:** 0207224F, 0207230F | **Other Related Program Elements:** 0207224F, 0207230F

Line Item MDAP/MAIS Code: 257

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-3a	5222 / HC/MC-130J Block 8.1 (Capability Improvement)		B		- / -	- / -	- / -	- / 31.919	- / 0.000	- / 31.919
P-3a	8632 / MC-130J Increment 2 (Capability Improvement)		A		- / 19.176	- / 18.217	- / 3.331	- / 0.000	- / 0.000	- / 0.000
P-3a	8634 / HC-130J Common Configuration (Capability Improvement)		A		- / 31.451	- / 0.156	- / 17.566	- / 2.180	- / 0.000	- / 2.180
P-3a	8635 / HC-130J Personnel Locator System (Capability Improvement)		B		- / 10.871	- / 5.173	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-3a	8636 / HC-130J Situational Awareness (Capability Improvement)		B		- / 16.530	- / 16.811	- / 27.612	- / 0.000	- / 35.900	- / 35.900
P-3a	8639 / Wireless Intercom (Capability Improvement)		B		- / 0.000	- / 1.660	- / 0.000	- / 0.000	- / 11.100	- / 11.100
P-3a	8640 / HC-130J Countermeasures Dispenser System Rapid Dispense (Capability Improvement)		B		- / -	- / 9.300	- / 16.180	- / 0.000	- / 0.000	- / 0.000
P-3a	8642 / (AbMN) Air borne Mission Networking (Capability Improvement)		A		- / -	- / 0.000	- / 14.692	- / 0.000	- / 0.000	- / 0.000
P-3a	8648 / ADS-B out Acceleration (Capability Improvement)		A		- / -	- / 0.000	- / 2.530	- / 2.530	- / 0.000	- / 2.530
P-3a	8650 / Advanced Threat Warning System (ATW) (Capability Improvement)		B		- / 0.000	- / 0.000	- / 29.500	- / 0.000	- / 7.000	- / 7.000
P-3a	8652 / (RFCM) Radio Frequency Countermeasures (Capability Improvement)		B		- / 0.000	- / 0.000	- / 107.400	- / 0.000	- / 0.000	- / 0.000
P-3a	8658 / Paratroop Door (Capability Improvement)		B		- / -	- / 0.000	- / 0.000	- / 0.000	- / 24.500	- / 24.500
P-3a	8659 / Broadband Antenna (Capability Improvement)		B		- / -	- / 0.000	- / 0.000	- / 0.000	- / 9.400	- / 9.400
P-3a	1 / Low Cost Modifications (Safety)		A		- / 8.147	- / 0.000	- / 1.943	- / 1.125	- / 0.000	- / 1.125
P-40	**Total Gross/Weapon System Cost**				**- / 86.175**	**- / 51.317**	**- / 220.754**	**- / 37.754**	**- / 87.900**	**- / 125.654**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-3a	5222 / HC/MC-130J Block 8.1 (Capability Improvement)		B		- / 3.253	- / 3.526	- / 3.340	- / 4.000	- / 333.664	- / 379.702
P-3a	8632 / MC-130J Increment 2 (Capability Improvement)		A		- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / 40.724
P-3a	8634 / HC-130J Common Configuration (Capability Improvement)		A		- / 0.468	- / 0.466	- / 0.500	- / 0.000	- / -	- / 52.787
P-3a	8635 / HC-130J Personnel Locator System (Capability Improvement)		B		- / 0.000	- / -	- / -	- / -	- / -	- / 16.044
P-3a	8636 / HC-130J Situational Awareness (Capability Improvement)		B		- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 96.853
P-3a	8639 / Wireless Intercom (Capability Improvement)		B		- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 12.760
P-3a	8640 / HC-130J Countermeasures Dispenser System Rapid Dispense (Capability Improvement)		B		- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 25.480
P-3a	8642 / (AbMN) Air borne Mission Networking (Capability Improvement)		A		- / -	- / -	- / -	- / -	- / -	- / 14.692
P-3a	8648 / ADS-B out Acceleration (Capability Improvement)		A		- / 1.954	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 7.014
P-3a	8650 / Advanced Threat Warning System (ATW) (Capability Improvement)		B		- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / 36.500
P-3a	8652 / (RFCM) Radio Frequency Countermeasures (Capability Improvement)		B		- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / 107.400

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0207224F, 0207230F	Other Related Program Elements: 0207224F, 0207230F

Line Item MDAP/MAIS Code: 257

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-3a	8658 / Paratroop Door (Capability Improvement)		B		- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / 24.500
P-3a	8659 / Broadband Antenna (Capability Improvement)		B		- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / 9.400
P-3a	1 / Low Cost Modifications (Safety)		A		- / 0.207	- / 0.023	- / 0.259	- / 0.375	- / 0.000	- / 12.079
P-40	**Total Gross/Weapon System Cost**				**- / 5.882**	**- / 4.015**	**- / 4.099**	**- / 4.375**	**- / 333.664**	**- / 835.935**

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 5222 / HC/MC-130J Block 8.1
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	-	-	31.919	0.000	31.919	3.253	3.526	3.340	4.000	333.664	379.702
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	-	31.919	0.000	31.919	3.253	3.526	3.340	4.000	333.664	379.702
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**-**	**31.919**	**0.000**	**31.919**	**3.253**	**3.526**	**3.340**	**4.000**	**333.664**	**379.702**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This program, P-3A Mod 5222, HC/MC-130J Block 8.1, is a new start.
The C-130J Block 8.1 modification program began in FY16. The HC/MC-130 Block 8.1 modification program begins in FY19. Block 8.1 modification program funds the procurement and installation of Communication, Navigation, and Surveillance/Air Traffic Management (CNS/ATM) requirements and other aircraft hardware and software improvements on USAF HC-130J, MC-130J, and AC-130J aircraft and associated training systems. It also incorporates capabilities including but not limited to, Link 16, a new Flight Management System (FMS), Civil GPS Navigation, Identification Friend or Foe (IFF) transponder Mode-5, Civil Data-Link, and Automatic Dependent Sureveillance-Broadcast (ADS-B). The C-130J program is developing C-130J Block 8.1 along with six other countries. The HC/MC-130J Block 8.1 retrofit modification program funds the Group A kits, installation of retrofit kits, delta kit components, and associated trainer efforts. Common Group B kits are funded in the C-130J Block 8.1 program.

Milestone/Development Status

HC/MC-130J Block 8.1 Trial Kit Install RDT&E effort started in FY 16.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	31.919	-	31.919	3.253	3.526	3.340	4.000
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**-**	**-**	**31.919**	**0.000**	**31.919**	**3.253**	**3.526**	**3.340**	**4.000**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 5222 / HC/MC-130J Block 8.1
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: HC-130J, MC-130J, AC-130J	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0207224F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Block 8-1 A Kit												
A Kits												
Recurring												
Block 8-1 A Kit:INSTALL KITS Group A (Active)	- / -	- / -	- / -	7 / 8.091	- / -	7 / 8.091	2 / 2.226	1 / 1.133	15 / 1.840	15 / 2.000	47 / 51.242	87 / 66.532
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / 8.091*	*- / -*	*- / 8.091*	*- / 2.226*	*- / 1.133*	*- / 1.840*	*- / 2.000*	*- / 51.242*	*- / 66.532*
Subtotal: Block 8-1 A Kit	*- / -*	*- / -*	*- / -*	*- / 8.091*	*- / -*	*- / 8.091*	*- / 2.226*	*- / 1.133*	*- / 1.840*	*- / 2.000*	*- / 51.242*	*- / 66.532*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / -*	*- / 8.091*	*- / -*	*- / 8.091*	*- / 2.226*	*- / 1.133*	*- / 1.840*	*- / 2.000*	*- / 51.242*	*- / 66.532*
Support *(All Modification Items)*												
GROUP A: TOTAL NONRECURRING	- / -	- / -	- / -	- / 5.400	- / -	- / 5.400	- / -	- / -	- / 0.000	- / -	- / -	- / 5.400
OTHER GOVT	- / -	- / -	- / -	- / 5.480	- / -	- / 5.480	- / 1.027	- / 0.386	- / -	- / 0.060	- / 16.553	- / 23.506
SUPPORT-EQUIP	- / -	- / -	- / -	- / 1.714	- / -	- / 1.714	- / -	- / -	- / -	- / -	- / -	- / 1.714
SIM/TRAINER	- / -	- / -	- / -	2 / 11.234	- / -	2 / 11.234	- / -	1 / 2.007	- / -	- / -	12 / 104.482	15 / 117.723
Subtotal: Support	*- / -*	*- / -*	*- / -*	*2 / 23.828*	*- / -*	*2 / 23.828*	*- / 1.027*	*1 / 2.393*	*- / 0.000*	*- / 0.060*	*12 / 121.035*	*15 / 148.343*
Installation												
Modification Item 1 of 1: Block 8-1 A Kit	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 1.500	1 / 1.940	77 / 161.387	87 / 164.827
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*9 / 1.500*	*1 / 1.940*	*77 / 161.387*	*87 / 164.827*
Total												
Total Cost (Procurement + Support + Installation)	**-**	**-**	**-**	**31.919**	**0.000**	**31.919**	**3.253**	**3.526**	**3.340**	**4.000**	**333.664**	**379.702**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 5222 / HC/MC-130J Block 8.1

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 1: Block 8-1 A Kit

Manufacturer Information

Manufacturer Name: Lockheed Martin

Manufacturer Location: Marietta/Greenville

Administrative Leadtime *(in Months)*: 5

Production Leadtime *(in Months)*: 24

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates			Mar 2019	Mar 2020	Mar 2021	Mar 2022	Mar 2023
Delivery Dates			Mar 2021	Mar 2022	Mar 2023	Mar 2024	Mar 2025

Installation Information

Method of Implementation: Contractor Facility

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 0.000	- / -	- / -	7 / 0.000
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 1.500	- / -	- / -	2 / 1.500
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 1.940	- / -	1 / 1.940
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / 29.955	15 / 29.955
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / 30.840	15 / 30.840
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	47 / 100.592	47 / 100.592
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 1.500	1 / 1.940	77 / 161.387	87 / 164.827

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	4	4	0	1	0	4	3	4	4	4	58	87
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	4	4	0	1	0	0	3	4	4	4	61	87

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 8632 / MC-130J Increment 2
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	19.176	18.217	3.331	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	40.724
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	19.176	18.217	3.331	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	40.724
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**19.176**	**18.217**	**3.331**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**-**	**40.724**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The MC-130J Increment 2 modification brings ten MC-130J Increment 1 aircraft up to the baseline Increment 2 configuration. Current funding includes but is not limited to completing the total requirement of ten aircraft modifications. Increment 2 includes but is not limited to adding LAIRCM Group A provisions, crashworthy loadmaster seats,increased electrical power, and installation of specific enhanced situational awareness modifications to MC-130J modifications. It also modifies MC-130J training systems from Increment 1 to Increment 2. This ensures total fleet commonality and avoids many DMS issues. Related is the HC-130J Common Configuration Mod (Mod 8634) which brings 2 HC-130Js from Increment 0 to Increment 2. This funding request includes but is not limited to supporting potential DMS,OFP builds, training requirements, and obsolescence solutions,to include if optimal, life of type buys or bridge buys limited to the program of record quantity. It also provides for the installation of specific SOF/PR modifications to MC-130J aircraft. Note: Milestone dates are for kit delivery and installation schedule dates are for installation on aircraft.

Milestone/Development Status

Increment 2 development is complete. The first Increment 2 aircraft produced was delivered off of the production line in the first quarter of FY13.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	18.217	3.331	-	-	-	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**18.217**	**3.331**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 8632 / MC-130J Increment 2
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: MC-130J	**Modification Type:** Capability Improvement	**Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Inc 1-2												
B Kits												
Recurring												
Inc 1-2:EQUIPMENT Group B (Active)	10 / 17.246	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 17.246
Subtotal: Recurring	*- / 17.246*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 17.246*
Subtotal: Inc 1-2	*- / 17.246*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 17.246*
Subtotal: Procurement, All Modification Items	*- / 17.246*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 17.246*
Support *(All Modification Items)*												
SIM/TRAINER	1 / 0.528	2 / 1.853	1 / 1.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 3.381
Subtotal: Support	*1 / 0.528*	*2 / 1.853*	*1 / 1.000*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*4 / 3.381*
Installation												
Modification Item 1 of 1: Inc 1-2	3 / 1.402	2 / 16.364	5 / 2.331	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 20.097
Subtotal: Installation	*3 / 1.402*	*2 / 16.364*	*5 / 2.331*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*10 / 20.097*
Total												
Total Cost (Procurement + Support + Installation)	**19.176**	**18.217**	**3.331**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**-**	**40.724**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 8632 / MC-130J Increment 2

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 1 of 1: Inc 1-2

Manufacturer Information

Manufacturer Name: Lockheed Martin

Manufacturer Location: Marietta GA

Administrative Leadtime *(in Months)*: 3

Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Contractor Facility

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	3 / 1.402	2 / 16.364	5 / 2.331	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 20.097
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	3 / 1.402	2 / 16.364	5 / 2.331	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 20.097

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	3	-	-	1	1	-	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	10
Out	2	-	-	1	1	-	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	10

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 8634 / HC-130J Common Configuration
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	31.451	0.156	17.566	2.180	0.000	2.180	0.468	0.466	0.500	0.000	-	52.787
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	31.451	0.156	17.566	2.180	0.000	2.180	0.468	0.466	0.500	0.000	-	52.787
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**31.451**	**0.156**	**17.566**	**2.180**	**0.000**	**2.180**	**0.468**	**0.466**	**0.500**	**0.000**	**-**	**52.787**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The HC-130J Common Configuration/Block Upgrade modification (mod) brings the first two HC-130J Increment 0 aircraft up to the baseline Increment 2 configuration. Increment 2 includes but is not limited to adding LAIRCM Group A provisions, crashworthy loadmaster seats, increased electrical power, and correction of deficiency report items identified during production. The program also brings HC-130J training systems to the Increment 2 configuration. This ensures total fleet commonality and avoids many Diminishing Manufacturing Sources issues.It also provides for the installation of specific special operation modifications to HC-130J aircraft. This funding request includes but is not limited to supporting OFP builds, potential DMS and obsolescence solutions,to include if optimal, life of type buys or bridge buys limited to the program of record quantity. It also provides for the installation of SOF/PR modifications.
This HC-130J mod is related to the MC-130J Increment 2 Mod (Mod #8632) which brings 10 MC-130Js from the Increment 1 to the Increment 2 configuration.

Milestone/Development Status

HC-130J Increment 2 development completed in 2012.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.156	17.566	2.180	-	2.180	0.468	0.466	0.500	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**0.156**	**17.566**	**2.180**	**0.000**	**2.180**	**0.468**	**0.466**	**0.500**	**0.000**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 8634 / HC-130J Common Configuration
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: HC-130J	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0207224F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Inc 0-2 Common Configuration												
A Kits												
Recurring												
Inc 0-2 Common Configuration:INSTALL KITS Group A (Active)	2 / 6.078	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 6.078
Subtotal: Recurring	*- / 6.078*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 6.078*
Subtotal: Inc 0-2 Common Configuration	*- / 6.078*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 6.078*
Subtotal: Procurement, All Modification Items	*- / 6.078*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 6.078*
Support *(All Modification Items)*												
GROUP A: TOTAL NONRECURRING	- / 9.008	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 9.008
SIM/TRAINER	1 / 0.427	- / -	4 / 17.566	4 / 2.180	- / -	4 / 2.180	1 / 0.468	1 / 0.466	1 / 0.500	- / -	- / -	12 / 21.607
SUPPORT-EQUIP	- / 1.357	- / 0.156	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.513
GFP	- / 2.708	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.708
Subtotal: Support	*1 / 13.500*	*- / 0.156*	*4 / 17.566*	*4 / 2.180*	*- / -*	*4 / 2.180*	*1 / 0.468*	*1 / 0.466*	*1 / 0.500*	*- / -*	*- / -*	*12 / 34.836*
Installation												
Modification Item 1 of 1: Inc 0-2 Common Configuration	2 / 11.873	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 11.873
Subtotal: Installation	*2 / 11.873*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*2 / 11.873*
Total												
Total Cost (Procurement + Support + Installation)	**31.451**	**0.156**	**17.566**	**2.180**	**0.000**	**2.180**	**0.468**	**0.466**	**0.500**	**0.000**	**-**	**52.787**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 8634 / HC-130J Common Configuration

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 1 of 1: Inc 0-2 Common Configuration

Manufacturer Information

Manufacturer Name: Lockheed Martin Aero

Manufacturer Location: Marietta Ga

Administrative Leadtime *(in Months)*: 0

Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Contractor Facility

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	2 / 11.873	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 11.873
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	2 / 11.873	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 11.873

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	2
Out	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	2

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 8635 / HC-130J Personnel Locator System

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	10.871	5.173	0.000	0.000	0.000	0.000	0.000	-	-	-	-	16.044
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	10.871	5.173	0.000	0.000	0.000	0.000	0.000	-	-	-	-	16.044
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**10.871**	**5.173**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**-**	**-**	**-**	**-**	**16.044**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The HC-130J Personnel Locator System installs the Lightweight Airborne Radio System (LARS) on HC-130Js to allow personnel recovery crews to detect and locate the 406 MHz emergency locator beacons for vessels in distress, downed aircraft, ejection seats, and/or isolated military personnel. This modification drastically reduces time required to locate and recover isolated personnel in hostile environments. This funding request includes but is not limited to supporting potential DMS and obsolescence solutions, OFP builds, training requirements,to include if optimal, life of type buys or bridge buys limited to the program of record quantity

Funding will be used to install LARS on HC-130Js includes but is not limited to training, support equipment, and associated requirements. FY17 funding includes $3M Base funding and $4.250 OCO funding.

Milestone/Development Status

N/A

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	5.173	0.000	0.000	-	0.000	0.000	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**5.173**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**-**	**-**	**-**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 8635 / HC-130J Personnel Locator System
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: HC-130J	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0207224F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Personnel Locator System												
A Kits												
Recurring												
Personnel Locator System:INSTALL KITS Group A (Active)	36 / 1.099	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	36 / 1.099
Subtotal: Recurring	*- / 1.099*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 1.099*
B Kits												
Recurring												
Personnel Locator System:EQUIPMENT Group B (Active)	27 / 5.063	- / 1.875	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	27 / 6.938
Subtotal: Recurring	*- / 5.063*	*- / 1.875*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 6.938*
Subtotal: Personnel Locator System	*- / 6.162*	*- / 1.875*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 8.037*
Subtotal: Procurement, All Modification Items	*- / 6.162*	*- / 1.875*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 8.037*
Support *(All Modification Items)*												
GROUP A: TOTAL NONRECURRING	- / 0.599	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.599
SIM/TRAINER	- / -	1 / 1.446	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 1.446
SUPPORT-EQUIP	- / 0.974	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.974
Subtotal: Support	*- / 1.573*	*1 / 1.446*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*1 / 3.019*
Installation												
Modification Item 1 of 1: Personnel Locator System	15 / 3.136	7 / 1.852	4 / 0.000	6 / 0.000	- / -	6 / 0.000	4 / 0.000	- / -	- / -	- / -	- / -	36 / 4.988
Subtotal: Installation	*15 / 3.136*	*7 / 1.852*	*4 / 0.000*	*6 / 0.000*	*- / -*	*6 / 0.000*	*4 / 0.000*	*- / -*	*- / -*	*- / -*	*- / -*	*36 / 4.988*
Total												
Total Cost (Procurement + Support + Installation)	**10.871**	**5.173**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**-**	**-**	**-**	**-**	**16.044**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 8635 / HC-130J Personnel Locator System

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 1: Personnel Locator System

Manufacturer Information

Manufacturer Name: Unknown

Manufacturer Location: Unknown

Administrative Leadtime *(in Months)*: 5

Production Leadtime *(in Months)*: 4

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	May 2017						
Delivery Dates	Sep 2017						

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	15 / 3.136	- / -	4 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	19 / 3.136
FY 2017	- / -	7 / 1.852	- / -	6 / 0.000	- / -	6 / 0.000	4 / 0.000	- / -	- / -	- / -	- / -	17 / 1.852
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	15 / 3.136	7 / 1.852	4 / 0.000	6 / 0.000	- / -	6 / 0.000	4 / 0.000	- / -	- / -	- / -	- / -	36 / 4.988

Installation Schedule

		FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023					
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	15	-	-	4	7	-	-	4	-	-	-	4	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	0	36
Out	15	-	-	-	4	-	7	4	-	-	-	4	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	0	36

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 8636 / HC-130J Situational Awareness
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	16.530	16.811	27.612	0.000	35.900	35.900	0.000	0.000	0.000	0.000	0.000	96.853
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	16.530	16.811	27.612	0.000	35.900	35.900	0.000	0.000	0.000	0.000	0.000	96.853
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**16.530**	**16.811**	**27.612**	**0.000**	**35.900**	**35.900**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**96.853**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Equips active duty HC-130J's Personnel Recovery fleet with five situational awareness capabilities (Situational Awareness Datalink (SADL), Blue Force Tracker (BFT), PRC-117 High Performance Waveform (HPW), Air Force Tactical Receiver System-Ruggedized (AFTRS-R) and Joint Precision Aerial Delivery System (JPADS)that are inherent on legacy aircraft. These capabilities are integrated using a federated situational awareness software integration suite.

This funding request includes but is not limited to supporting potential DMS and obsolescence solutions, OFP builds, to include if optimal, life of type buys or bridge buys limited to the program of record quantity, and training requirements. The SACU modification will field capabilities in increments. SACU Phase 1A which was encompassed in the Video Data Link P-3A modification #8637 using FY15 OCO funding equipped 19 aircraft with the T1 to permanent modification. SACU Phase 1B which will use FY17 Baseline dollars equips 18 aircraft with field support, Video Data Link and Special Communication Radio. SACU Phase 2 which utilizes FY18 base dollars to equip 13 aircraft with Blue Force Tracker 2, Solid State Server, Combat systems officer Display, Video Encoder, Ethernet Connections at Auxiliary Flight Deck Station & PJ Door, and Ethernet connection & display near FS 245 New Commercial Off the shelf situational awareness software suite with Joint Mission Planning System.

Starting in FY17 this modification request encompasses Video Data Link and Special Radio Communication requirements that were previously captured under a separate modification #8637. In FY17 this modification encompasses funding from Variable Speed Drogue that was previously captured under a separate modification #8638.

Milestone/Development Status

N/A

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	16.811	27.612	-	35.900	35.900	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**16.811**	**27.612**	**0.000**	**35.900**	**35.900**	**0.000**	**0.000**	**0.000**	**0.000**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 8636 / HC-130J Situational Awareness
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: HC-130J	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0207224F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Situational Awareness												
A Kits												
Recurring												
Situational Awareness:INSTALL KITS Group A (Active)	19 / 0.001	13 / 1.691	- / -	- / -	18 / 0.005	18 / 0.005	- / -	- / -	- / -	- / -	- / -	50 / 1.697
Subtotal: Recurring	*- / 0.001*	*- / 1.691*	*- / -*	*- / -*	*- / 0.005*	*- / 0.005*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 1.697*
B Kits												
Recurring												
Situational Awareness:EQUIPMENT Group B (Active)	- / -	13 / 10.455	- / -	- / -	18 / 17.200	18 / 17.200	- / -	- / -	- / -	- / -	- / -	31 / 27.655
Subtotal: Recurring	*- / -*	*- / 10.455*	*- / -*	*- / -*	*- / 17.200*	*- / 17.200*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 27.655*
Subtotal: Situational Awareness	*- / 0.001*	*- / 12.146*	*- / -*	*- / -*	*- / 17.205*	*- / 17.205*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 29.352*
Subtotal: Procurement, All Modification Items	*- / 0.001*	*- / 12.146*	*- / -*	*- / -*	*- / 17.205*	*- / 17.205*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 29.352*
Support *(All Modification Items)*												
GROUP A: TOTAL NONRECURRING	- / 8.816	- / 2.974	- / 10.209	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 21.999
ICS-Labor	- / -	- / -	2 / 9.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 9.000
SIM/TRAINER	- / -	- / -	1 / 8.403	- / -	4 / 13.000	4 / 13.000	- / -	- / -	- / -	- / -	- / -	5 / 21.403
SUPPORT-EQUIP	- / 7.593	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 7.593
Subtotal: Support	*- / 16.409*	*- / 2.974*	*3 / 27.612*	*- / -*	*4 / 13.000*	*4 / 13.000*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*7 / 59.995*
Installation												
Modification Item 1 of 1: Situational Awareness	19 / 0.120	0 / 1.691	13 / 0.000	- / -	18 / 5.695	18 / 5.695	- / -	- / -	- / -	- / -	- / -	50 / 7.506
Subtotal: Installation	*19 / 0.120*	*- / 1.691*	*13 / -*	*- / -*	*18 / 5.695*	*18 / 5.695*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*50 / 7.506*
Total												
Total Cost (Procurement + Support + Installation)	**16.530**	**16.811**	**27.612**	**0.000**	**35.900**	**35.900**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**96.853**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 8636 / HC-130J Situational Awareness

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 1: Situational Awareness

Manufacturer Information

Manufacturer Name: Lockheed Martin Aero

Manufacturer Location: Marietta, GA

Administrative Leadtime *(in Months)*: 3

Production Leadtime *(in Months)*: 4

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Mar 2018		Jan 2019				
Delivery Dates	Jul 2018		May 2019				

Installation Information

Method of Implementation: Contractor Facility

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	19 / 0.120	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	19 / 0.120
FY 2017	- / -	0 / 1.691	13 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	13 / 1.691
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	18 / 5.695	18 / 5.695	- / -	- / -	- / -	- / -	- / -	18 / 5.695
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	19 / 0.120	0 / 1.691	13 / 0.000	- / -	18 / 5.695	18 / 5.695	- / -	- / -	- / -	- / -	- / -	50 / 7.506

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	19	-	-	-	-	-	-	6	7	4	4	4	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	50
Out	19	-	-	-	-	-	-	6	7	4	4	4	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	50

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 8639 / Wireless Intercom
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	1.660	0.000	0.000	11.100	11.100	0.000	0.000	0.000	0.000	0.000	12.760
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	1.660	0.000	0.000	11.100	11.100	0.000	0.000	0.000	0.000	0.000	12.760
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**1.660**	**0.000**	**0.000**	**11.100**	**11.100**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**12.760**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Equips HC/MC-130J aircraft with Wireless Interphone Communnication System (WICS). WICS will provide the required mobility to conduct safe encrypted operations including but not limited to Forward Area Refueling Point (FARP), and will integrate with the aircrew headset, helmet and oxygen mask. This effort includes but is not limited to kits, training, tech data, RSPs, OFP builds, and other government costs.

The FY19 OCO funding equips HC/MC-130J aircraft with Wireless Interphone Communication Systems kits and spares.

Milestone/Development Status

N/A

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	1.660	-	-	11.100	11.100	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**1.660**	**0.000**	**0.000**	**11.100**	**11.100**	**0.000**	**0.000**	**0.000**	**0.000**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 8639 / Wireless Intercom
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: HC-130J	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0207224F, 0207230F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Wireless Interphone Communication System												
B Kits												
Recurring												
Wireless Interphone Communication System:EQUIPMENT Group B (Active)	- / -	2 / 0.200	- / -	- / -	101 / 11.100	101 / 11.100	- / -	- / -	- / -	- / -	- / -	103 / 11.300
Subtotal: Recurring	*- / -*	*- / 0.200*	*- / -*	*- / -*	*- / 11.100*	*- / 11.100*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 11.300*
Subtotal: Wireless Interphone Communication System	*- / -*	*- / 0.200*	*- / -*	*- / -*	*- / 11.100*	*- / 11.100*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 11.300*
Subtotal: Procurement, All Modification Items	*- / -*	*- / 0.200*	*- / -*	*- / -*	*- / 11.100*	*- / 11.100*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 11.300*
Support *(All Modification Items)*												
PMA - Other Gov't Costs	- / -	0 / 1.460	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 1.460
Subtotal: Support	*- / -*	*0 / 1.460*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*0 / 1.460*
Installation												
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*
Total												
Total Cost (Procurement + Support + Installation)	**0.000**	**1.660**	**0.000**	**0.000**	**11.100**	**11.100**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**12.760**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 8639 / Wireless Intercom
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 1: Wireless Interphone Communication System

Manufacturer Information

Manufacturer Name: Lockeheed Martin	Manufacturer Location: Marietta, GA
Administrative Leadtime *(in Months)*: 1	Production Leadtime *(in Months)*: 8

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Jun 2017		Jun 2019				
Delivery Dates	Feb 2018		Feb 2020				

Installation Information

Method of Implementation (Organic): Org/Intermediate	**Installation Quantity:** 117

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 8640 / HC-130J Countermeasures Dispenser System Rapid Dispense

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	9.300	16.180	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	25.480
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	9.300	16.180	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	25.480
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**9.300**	**16.180**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**25.480**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Equips HC-130J Personnel Recovery aircraft with the Countermeasures Dispenser System (CMDS) Rapid Dispense modification to reduce the contested threat environment and to work with other defensive system upgrades. This funding request will support potential DMS and obsolescence solutions, to include but not limited to, OFP builds, optimal life of type buys or bridge buys limited to the program of record quantity. The HC-130J CMDS and associated defensive systems upgrades will provide for the rapid dispensing of chaff, flares, or a combination of both when needed to react to different types of threats. This modification includes but is not limited to non-recurring engineering, kits, spares, installation, trainer requirements, and training costs. This modification includes but is not limited to the integration of the ALQ-213.

This HC-130J mod is related to the HC-130J RFCM (Mod # 8652) which proved the operating platform for CMDS.

Starting in FY18 this modification request encompasses the Radar modification funding which was previously captured under a separate modification #8656.

Milestone/Development Status

N/A

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	9.300	16.180	0.000	-	0.000	-	0.000	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**9.300**	**16.180**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 8640 / HC-130J Countermeasures Dispenser System Rapid Dispense
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: HC-130J	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0207224F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: CMDS Rapid Dispense												
B Kits												
Recurring												
CMDS Rapid Dispense:EQUIPMENT Group B (Active)	- / -	19 / 2.850	18 / 2.700	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	37 / 5.550
Subtotal: Recurring	*- / -*	*- / 2.850*	*- / 2.700*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 5.550*
Subtotal: CMDS Rapid Dispense	*- / -*	*- / 2.850*	*- / 2.700*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 5.550*
Subtotal: Procurement, All Modification Items	*- / -*	*- / 2.850*	*- / 2.700*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 5.550*
Support *(All Modification Items)*												
GROUP B: TOTAL NONRECURRING	- / -	- / 0.555	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.555
SIM/TRAINER	- / -	- / -	4 / 4.980	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 4.980
SUPPORT-EQUIP	- / -	- / 1.145	9 / 4.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 5.145
Subtotal: Support	*- / -*	*- / 1.700*	*13 / 8.980*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*13 / 10.680*
Installation												
Modification Item 1 of 1: CMDS Rapid Dispense	- / -	0 / 4.750	0 / 4.500	19 / 0.000	- / -	19 / 0.000	- / -	18 / 0.000	- / -	- / -	- / -	37 / 9.250
Subtotal: Installation	*- / -*	*- / 4.750*	*- / 4.500*	*19 / -*	*- / -*	*19 / -*	*- / -*	*18 / -*	*- / -*	*- / -*	*- / -*	*37 / 9.250*
Total												
Total Cost (Procurement + Support + Installation)	**-**	**9.300**	**16.180**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**25.480**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 8640 / HC-130J Countermeasures Dispenser System Rapid Dispense

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 1: CMDS Rapid Dispense

Manufacturer Information

Manufacturer Name: TBD

Manufacturer Location: TBD

Administrative Leadtime *(in Months)*: 8

Production Leadtime *(in Months)*: 8

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Sep 2018	Sep 2018					
Delivery Dates	May 2019	May 2019					

Installation Information

Method of Implementation: Contractor Facility

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	0 / 4.750	0 / 4.500	19 / 0.000	- / -	19 / 0.000	- / -	- / -	- / -	- / -	- / -	19 / 9.250
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	18 / 0.000	- / -	- / -	- / -	18 / 0.000
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	0 / 4.750	0 / 4.500	19 / 0.000	- / -	19 / 0.000	- / -	18 / 0.000	- / -	- / -	- / -	37 / 9.250

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	-	-	6	6	7	-	6	6	6	-	-	-	-	-	-	-	-	0	37
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	6	6	7	-	6	6	6	-	-	-	-	-	-	-	-	0	37

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 8642 / (AbMN) Air borne Mission Networking

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	0.000	14.692	0.000	0.000	0.000	-	-	-	-	-	14.692
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	14.692	0.000	0.000	0.000	-	-	-	-	-	14.692
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**14.692**	**0.000**	**0.000**	**0.000**	**-**	**-**	**-**	**-**	**-**	**14.692**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This modification is an FY18 New Start. Equips the MC-130J with the service common hardware to satisfy AFSOC's communications tactical data link capability requirements as stated in the USSOCOM Airborne Mission Networking Capabilities Development Document, dated 6 January 2016. The hardware will provide Beyond Line of Site, Line of Site, and Full Motion Video datalink capabilities. The funding will provide service common hardware for up to four systems kits that will be permanently integrated in the MC-130J aircraft.This funding request will support potential DMS and obsolescence solutions,to include if optimal, life of type buys or bridge buys limited to the program of record quantity. This effort includes but is not limited to, kits, training, tech data, RSPs, and other government costs.

Milestone/Development Status

N/A

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	14.692	-	-	-	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**0.000**	**14.692**	**0.000**	**0.000**	**0.000**	**-**	**-**	**-**	**-**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 8642 / (AbMN) Air borne Mission Networking
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: MC-130J	**Modification Type:** Capability Improvement	**Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: AbMNGroup B												
B Kits												
Recurring												
AbMNGroup B:EQUIPMENT Group B (Active)	- / -	- / -	4 / 14.692	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 14.692
Subtotal: Recurring	- / -	- / -	- / 14.692	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 14.692
Subtotal: AbMNGroup B	- / -	- / -	- / 14.692	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 14.692
Subtotal: Procurement, All Modification Items	- / -	- / -	- / 14.692	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 14.692
Installation												
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total												
Total Cost (Procurement + Support + Installation)	**-**	**0.000**	**14.692**	**0.000**	**0.000**	**0.000**	**-**	**-**	**-**	**-**	**-**	**14.692**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 8642 / (AbMN) Air borne Mission Networking

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 1 of 1: AbMNGroup B

Manufacturer Information

Manufacturer Name: Lockheed Martin

Manufacturer Location: Marietta, GA

Administrative Leadtime *(in Months)*: 3

Production Leadtime *(in Months)*: 5

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Jan 2018					
Delivery Dates		Jun 2018					

Installation Information

Method of Implementation (Organic): Org/Intermediate

Installation Quantity: 0

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 8648 / ADS-B out Acceleration
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	0.000	2.530	2.530	0.000	2.530	1.954	0.000	0.000	0.000	0.000	7.014
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	2.530	2.530	0.000	2.530	1.954	0.000	0.000	0.000	0.000	7.014
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**2.530**	**2.530**	**0.000**	**2.530**	**1.954**	**0.000**	**0.000**	**0.000**	**0.000**	**7.014**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The C-130J ADS-B Acceleration program will modify 248 C-130Js and variants with Automatic Dependent Surveillance-Broadcast (ADS-B) Out, and Identification Friend or Foe (IFF) Mode 5 Level 1. The acquisition strategy addresses the Federal Aviation Administration/International Civil Aviation Organization (FAA/ICAO) Communication/Navigation/Surveillance and Air Traffic Management (CNS/ATM) mandated upgrades in the most efficient manner that will meet FAA's January 2020 and ICAO's June 2020 Airspace Compliance mandates. The modification effort will have 7 prototype aircraft required for the accomplishment of the ADS-B Out Engineering and Manufacturing Development (EMD) phase, with the remaining aircraft being covered under the production contract, targeting award in 31 Aug 2018. The prototype aircraft represent all the variations in the C-130J mission designs. This funding request includes but is not limited to supporting training requirements, OFP builds, sparing requirements, potential DMS and obsolescence solutions, to include if optimal, life of type buys or bridge buys limited to the program of record quantity for HC/MC/AC.
Note, the Traffic Alert and Collision Avoidance System (TCAS II) is listed in the C-130H VAAP Capability Development Document (CDD) as a requirement since it's required for flight operations in airspace controlled by the Federal Aviation Administration (FAA), and airspace controlled by foreign countries; the legacy C-130H fleet currently has TCAS II 7.0 installed. Also, MODE 5 IFF is listed in the CDD as a requirement but is funded in mod number 9139.

Milestone/Development Status

N/A

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	2.530	2.530	-	2.530	1.954	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**0.000**	**2.530**	**2.530**	**0.000**	**2.530**	**1.954**	**0.000**	**0.000**	**0.000**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 8648 / ADS-B out Acceleration
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: MC-130J	**Modification Type:** Capability Improvement	**Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Group A												
A Kits												
Recurring												
Group A:INSTALL KITS Group A (Active)	- / -	- / -	0 / 1.230	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 1.230
Subtotal: Recurring	*- / -*	*- / -*	*- / 1.230*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 1.230*
Subtotal: Group A	*- / -*	*- / -*	*- / 1.230*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 1.230*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / 1.230*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 1.230*
Support *(All Modification Items)*												
OTHER GOVT	- / -	- / -	1 / 1.300	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 1.300
MOD OF SPARES	- / -	- / -	- / -	1 / 2.530	- / -	1 / 2.530	1 / 1.954	- / -	- / -	- / -	- / -	2 / 4.484
Subtotal: Support	*- / -*	*- / -*	*1 / 1.300*	*1 / 2.530*	*- / -*	*1 / 2.530*	*1 / 1.954*	*- / -*	*- / -*	*- / -*	*- / -*	*3 / 5.784*
Installation												
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*
Total												
Total Cost (Procurement + Support + Installation)	**-**	**0.000**	**2.530**	**2.530**	**0.000**	**2.530**	**1.954**	**0.000**	**0.000**	**0.000**	**0.000**	**7.014**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 8648 / ADS-B out Acceleration

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 1 of 1: Group A

Manufacturer Information

Manufacturer Name: Lockheed Martin

Manufacturer Location: Marietta, GA

Administrative Leadtime *(in Months)*: 1

Production Leadtime *(in Months)*: 5

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation (Organic): Org/Intermediate

Installation Quantity: 0

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 8650 / Advanced Threat Warning System (ATW)
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	0.000	29.500	0.000	7.000	7.000	0.000	0.000	0.000	-	-	36.500
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	0.000	29.500	0.000	7.000	7.000	0.000	0.000	0.000	-	-	36.500
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**0.000**	**29.500**	**0.000**	**7.000**	**7.000**	**0.000**	**0.000**	**0.000**	**-**	**-**	**36.500**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The FY18 funding for Advanced Threat Warning System (ATW) will be used to procure and install LAIRCM LSPR/CIURs on HC/MC-130J aircraft, and provide associated LAIRCM software block upgrade modification requirements including but not limited to OFP builds, training and trainer costs, support equipment and associated requirements.

The FY19 OCO funding will be used to continue the upgrade to the latest Missile Warning System Configuration.

Milestone/Development Status

N/A

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	29.500	-	7.000	7.000	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**0.000**	**29.500**	**0.000**	**7.000**	**7.000**	**0.000**	**0.000**	**0.000**	**-**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 8650 / Advanced Threat Warning System (ATW)
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: HC-130J	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0207224F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: ATW												
A Kits												
Recurring												
ATW:INSTALL KITS Group A (Active)	- / -	- / -	15 / 1.000	- / -	7 / 2.000	7 / 2.000	- / -	- / -	- / -	- / -	- / -	22 / 3.000
Subtotal: Recurring	- / -	- / -	- / 1.000	- / -	- / 2.000	- / 2.000	- / -	- / -	- / -	- / -	- / -	- / 3.000
B Kits												
Recurring												
ATW:EQUIPMENT Group B (Active)	- / -	- / -	15 / 9.650	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / 9.650
Subtotal: Recurring	- / -	- / -	- / 9.650	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 9.650
Subtotal: ATW	- / -	- / -	- / 10.650	- / -	- / 2.000	- / 2.000	- / -	- / -	- / -	- / -	- / -	- / 12.650
Subtotal: Procurement, All Modification Items	- / -	- / -	- / 10.650	- / -	- / 2.000	- / 2.000	- / -	- / -	- / -	- / -	- / -	- / 12.650
Support *(All Modification Items)*												
Change Orders	- / -	- / -	- / 11.850	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 11.850
SUPPORT-EQUIP	- / -	- / -	- / 1.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.000
Subtotal: Support	- / -	- / -	- / 12.850	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 12.850
Installation												
Modification Item 1 of 1: ATW	- / -	- / -	15 / 6.000	- / -	7 / 5.000	7 / 5.000	- / -	- / -	- / -	- / -	- / -	22 / 11.000
Subtotal: Installation	- / -	- / -	15 / 6.000	- / -	7 / 5.000	7 / 5.000	- / -	- / -	- / -	- / -	- / -	22 / 11.000
Total												
Total Cost (Procurement + Support + Installation)	**0.000**	**0.000**	**29.500**	**0.000**	**7.000**	**7.000**	**0.000**	**0.000**	**0.000**	**-**	**-**	**36.500**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 8650 / Advanced Threat Warning System (ATW)

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 1: ATW

Manufacturer Information

Manufacturer Name: Lockheed Martin

Manufacturer Location: Marietta, GA

Administrative Leadtime *(in Months)*: 6

Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Apr 2018	Apr 2019				
Delivery Dates		Apr 2019	Apr 2020				

Installation Information

Method of Implementation: Contractor Facility

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	15 / 6.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / 6.000
FY 2019	- / -	- / -	- / -	- / -	7 / 5.000	7 / 5.000	- / -	- / -	- / -	- / -	- / -	7 / 5.000
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	15 / 6.000	- / -	7 / 5.000	7 / 5.000	- / -	- / -	- / -	- / -	- / -	22 / 11.000

Installation Schedule

		FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023					
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	0	-	-	-	-	-	-	4	4	4	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	15
Out	0	-	-	-	-	-	-	-	-	4	4	4	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	15

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 8652 / (RFCM) Radio Frequency Countermeasures
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	0.000	107.400	0.000	0.000	0.000	0.000	0.000	0.000	-	-	107.400
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	0.000	107.400	0.000	0.000	0.000	0.000	0.000	0.000	-	-	107.400
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**0.000**	**107.400**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**-**	**-**	**107.400**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The HC-130J Radio Frequency Countermeasures (RFCM) FY18 OCO funding provides provisioning for the follow-on RFCM capability via the procurement and installation of ALQ-213A kits and associated support requirements including but not limited to, OFP builds, training, spares, and ICS.

This HC-130J mod is related to the HC-130J CMDS (Mod # 8640) which proved the operating platform for CMDS.

Milestone/Development Status

N/A

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	107.400	0.000	-	0.000	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**0.000**	**107.400**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**-**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 8652 / (RFCM) Radio Frequency Countermeasures
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: HC-130J	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0207224F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: RFCM												
A Kits												
Recurring												
RFCM:INSTALL KITS Group A (Active)	- / -	- / -	15 / 63.400	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / 63.400
Subtotal: Recurring	- / -	- / -	- / 63.400	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 63.400
B Kits												
Recurring												
RFCM:EQUIPMENT Group B (Active)	- / -	- / -	8 / 28.400	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 28.400
Subtotal: Recurring	- / -	- / -	- / 28.400	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 28.400
Subtotal: RFCM	- / -	- / -	- / 91.800	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 91.800
Subtotal: Procurement, All Modification Items	- / -	- / -	- / 91.800	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 91.800
Support *(All Modification Items)*												
GROUP B: TOTAL NONRECURRING	- / -	- / -	- / 1.300	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.300
SUPPORT-EQUIP	- / -	- / -	- / 3.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.500
SIM/TRAINER	- / -	- / -	1 / 3.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 3.000
Subtotal: Support	- / -	- / -	1 / 7.800	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 7.800
Installation												
Modification Item 1 of 1: RFCM	- / -	- / -	15 / 7.800	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	15 / 7.800
Subtotal: Installation	- / -	- / -	15 / 7.800	0 / -	- / -	0 / -	- / -	- / -	- / -	- / -	- / -	15 / 7.800
Total												
Total Cost (Procurement + Support + Installation)	**0.000**	**0.000**	**107.400**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**-**	**-**	**107.400**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 8652 / (RFCM) Radio Frequency Countermeasures

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 1: RFCM

Manufacturer Information

Manufacturer Name: TBD

Manufacturer Location: TBD

Administrative Leadtime *(in Months)*: 6

Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Apr 2018					
Delivery Dates		Apr 2019					

Installation Information

Method of Implementation: Contractor Facility

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	15 / 7.800	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	15 / 7.800
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	15 / 7.800	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	15 / 7.800

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	3	3	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	15
Out	0	-	-	-	-	-	-	-	-	-	3	3	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	15

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 8658 / Paratroop Door
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	0.000	0.000	0.000	24.500	24.500	0.000	0.000	0.000	0.000	-	24.500
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	0.000	0.000	24.500	24.500	0.000	0.000	0.000	0.000	-	24.500
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**0.000**	**0.000**	**24.500**	**24.500**	**0.000**	**0.000**	**0.000**	**0.000**	**-**	**24.500**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This program, P-3A Mod 8658, Paratroop Door, is a new start.
This program, P-3A Mod 8658, Paratroop Door, is an FY19 new start.
HC-130J Upgraded Paratroop Door System will upgrade the paratroop door system that combines improved visual scanning, armor, and a spring-loaded counter balance system that alleviates damage to paratroop doors, facilitates operation, and egress with armor installed. Current funding includes but is not limited to purchasing kits for 19 aircraft.

Milestone/Development Status

Milestone

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	-	24.500	24.500	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**0.000**	**0.000**	**0.000**	**24.500**	**24.500**	**0.000**	**0.000**	**0.000**	**0.000**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 8658 / Paratroop Door
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: HC-130J	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0207224F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Paratroop Kits												
A Kits												
Recurring												
Paratroop Kits:INSTALL KITS Group A (Active)	- / -	- / -	- / -	- / -	19 / 24.500	19 / 24.500	- / -	- / -	- / -	- / -	- / -	19 / 24.500
Subtotal: Recurring	- / -	- / -	- / -	- / -	- / 24.500	- / 24.500	- / -	- / -	- / -	- / -	- / -	- / 24.500
Subtotal: Paratroop Kits	- / -	- / -	- / -	- / -	- / 24.500	- / 24.500	- / -	- / -	- / -	- / -	- / -	- / 24.500
Subtotal: Procurement, All Modification Items	- / -	- / -	- / -	- / -	- / 24.500	- / 24.500	- / -	- / -	- / -	- / -	- / -	- / 24.500
Installation												
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total												
Total Cost (Procurement + Support + Installation)	**-**	**0.000**	**0.000**	**0.000**	**24.500**	**24.500**	**0.000**	**0.000**	**0.000**	**0.000**	**-**	**24.500**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 8658 / Paratroop Door

ID Code (A=Service Ready, B=Not Service Ready) : B | **MDAP/MAIS Code:**

Modification Item 1 of 1: Paratroop Kits

Manufacturer Information

Manufacturer Name: TBD | Manufacturer Location: TBD

Administrative Leadtime *(in Months)*: 9 | Production Leadtime *(in Months)*: 4

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates			Jul 2019				
Delivery Dates			Nov 2019				

Installation Information

Method of Implementation (Organic): Org/Intermediate | **Installation Quantity:** 19

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 8659 / Broadband Antenna
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	0.000	0.000	0.000	9.400	9.400	0.000	0.000	0.000	0.000	-	9.400
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	0.000	0.000	9.400	9.400	0.000	0.000	0.000	0.000	-	9.400
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**0.000**	**0.000**	**9.400**	**9.400**	**0.000**	**0.000**	**0.000**	**0.000**	**-**	**9.400**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This program, P-3A Mod 8659, Broadband Antenna, is a new start.
Equips the MC-130J with a Self-contained airborne satellite terminal that delivers high-speed IP communications (Full motion video and data uploads. Current funding includes but is not limited to, OFP (Operational Flight Program) builds,training requirements as well as 6 aircraft.

Milestone/Development Status

Milestone

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	-	9.400	9.400	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**0.000**	**0.000**	**0.000**	**9.400**	**9.400**	**0.000**	**0.000**	**0.000**	**0.000**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 8659 / Broadband Antenna
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: MC-130J	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0207230F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Group A Kits												
A Kits												
Recurring												
Group A Kits:INSTALL KITS Group A (Active)	- / -	- / -	- / -	- / -	6 / 9.400	6 / 9.400	- / -	- / -	- / -	- / -	- / -	6 / 9.400
Subtotal: Recurring	- / -	- / -	- / -	- / -	- / *9.400*	- / *9.400*	- / -	- / -	- / -	- / -	- / -	- / *9.400*
Subtotal: Group A Kits	- / -	- / -	- / -	- / -	- / *9.400*	- / *9.400*	- / -	- / -	- / -	- / -	- / -	- / *9.400*
Subtotal: Procurement, All Modification Items	- / -	- / -	- / -	- / -	- / *9.400*	- / *9.400*	- / -	- / -	- / -	- / -	- / -	- / *9.400*
Installation												
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total												
Total Cost (Procurement + Support + Installation)	**-**	**0.000**	**0.000**	**0.000**	**9.400**	**9.400**	**0.000**	**0.000**	**0.000**	**0.000**	**-**	**9.400**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 8659 / Broadband Antenna
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 1: Group A Kits

Manufacturer Information

Manufacturer Name: TBD	Manufacturer Location: TBD
Administrative Leadtime *(in Months)*: 8	Production Leadtime *(in Months)*: 8

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates			Jun 2019				
Delivery Dates			Feb 2020				

Installation Information

Method of Implementation (Organic): Org/Intermediate	**Installation Quantity:** 6

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 1 / Low Cost Modifications
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	8.147	0.000	1.943	1.125	0.000	1.125	0.207	0.023	0.259	0.375	0.000	12.079
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	8.147	0.000	1.943	1.125	0.000	1.125	0.207	0.023	0.259	0.375	0.000	12.079
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**8.147**	**0.000**	**1.943**	**1.125**	**0.000**	**1.125**	**0.207**	**0.023**	**0.259**	**0.375**	**0.000**	**12.079**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Low Cost Modifications encompass efforts necessary to improve reliability, maintainability, safety, and mission performance, to reduce logistics costs, and to implement fleet upgrades and enhancements to meet emerging requirements for the HC/MC-130J aircraft and associated training systems.

Milestone/Development Status

NA

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.000	-	1.125	-	1.125	0.207	0.023	0.259	0.375
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	1.943	-	-	-	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**0.000**	**1.943**	**1.125**	**0.000**	**1.125**	**0.207**	**0.023**	**0.259**	**0.375**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 1 / Low Cost Modifications
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: HC-130J, MC-130J	**Modification Type:** Safety	**Related RDT&E PEs:** 0207224F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: T-1												
A Kits												
Recurring												
T-1:INSTALL KITS Group A (Guard)	- / -	- / -	- / 1.943	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.943
Subtotal: Recurring	*- / -*	*- / -*	*- / 1.943*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 1.943*
Subtotal: T-1	*- / -*	*- / -*	*- / 1.943*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 1.943*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / 1.943*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 1.943*
Support *(All Modification Items)*												
OTHER GOVT	- / 8.147	- / 0.000	- / -	- / 1.125	- / -	- / 1.125	- / 0.207	- / 0.023	- / 0.259	- / 0.375	- / -	- / 10.136
Subtotal: Support	*- / 8.147*	*- / 0.000*	*- / -*	*- / 1.125*	*- / -*	*- / 1.125*	*- / 0.207*	*- / 0.023*	*- / 0.259*	*- / 0.375*	*- / -*	*- / 10.136*
Installation												
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*
Total												
Total Cost (Procurement + Support + Installation)	**8.147**	**0.000**	**1.943**	**1.125**	**0.000**	**1.125**	**0.207**	**0.023**	**0.259**	**0.375**	**0.000**	**12.079**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** HCMC00 / HC/MC-130 Modifications	**Modification Number / Title:** 1 / Low Cost Modifications

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 1 of 1: T-1

Manufacturer Information

Manufacturer Name: Lockheed Martin Aero

Manufacturer Location: Marietta GA

Administrative Leadtime *(in Months)*: 0

Production Leadtime *(in Months)*: 0

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation (Organic): Org/Intermediate

Installation Quantity: 0

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** OTHACF / Other Aircraft

ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0207224F, 0207701F, 0401897F	**Other Related Program Elements:** 0207224F, 0207249F, 0207701F, 0401897F

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	287.411	41.386	69.449	62.010	53.731	115.741	137.826	83.981	19.352	19.632	0.000	774.778
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	287.411	41.386	69.449	62.010	53.731	115.741	137.826	83.981	19.352	19.632	0.000	774.778
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**287.411**	**41.386**	**69.449**	**62.010**	**53.731**	**115.741**	**137.826**	**83.981**	**19.352**	**19.632**	**0.000**	**774.778**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This line item funds multiple modifications that apply to weapon systems funded at less than $2 million per year as well as weapon systems with much greater budgets. The overall goal of the modifications budgeted is to enhance capability and improve reliability and maintainability.

Funding contained in this platform's documentation directly aids simulator aircraft training systems training enterprise to continue its overall FYDP pilot production increase thus reducing the USAF Pilot Shortage.

FY 2019-FY 2023 funding for PE 0207701F, Full Combat Mission Training, Mod 8669, efforts were transferred to PE 0207133F, F-16, in order to transfer programmatic responsibilities and funding to the F-16 weapon system team.

Funding may be used to address Diminishing Manufacturing Sources (DMS) issues.

FY17 funding totals include $7.5M for Overseas Contingency Operations.

FY19 funding totals include $29.2M for Overseas Contingency Operations. PE 0207249($22M ATP & Upgrades; $7.2M ATP Digital Video). PE 0207701F $10.010M for threat simulators for Nellis AFB Virtual Test Training Range.

Funding for this exhibit contained in PE 0207224F, 0207249F, 0303601F, 0401897F.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense mission, domestic emergency responses, and providing military support to civilian authorities.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** OTHACF / Other Aircraft	
ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0207224F, 0207701F, 0401897F	**Other Related Program Elements:** 0207224F, 0207249F, 0207701F, 0401897F
Line Item MDAP/MAIS Code: N/A		

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
	Total Obligation Authority	41.386	69.449	62.010	53.731	115.741	137.826	83.981	19.352	19.632
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.000	-	0.000	-	0.000	0.000	0.000	0.000	0.000
AFR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	0.000	-	0.000	0.000	0.000	0.000	0.000
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**41.386**	**69.449**	**62.010**	**53.731**	**115.741**	**137.826**	**83.981**	**19.352**	**19.632**

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	**Date:** February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** OTHACF / Other Aircraft

ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0207224F, 0207701F, 0401897F	**Other Related Program Elements:** 0207224F, 0207249F, 0207701F, 0401897F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-40a***	8669 / Full Combat Mission Training (Capability Improvement)				- / 60.833	- / 1.694	- / 13.877	- / -	- / -	- / -
P-40a***	8670 / MAF Training (Capability Improvement)				- / 7.197	- / 25.317	- / 1.172	- / 0.000	- / -	- / 0.000
P-40a***	99999J / MISCELLANEOUS LOW COSTS MODS (Combat Developments) (Other)				- / 142.387	- / 0.138	- / 0.162	- / 0.148	- / -	- / 0.148
P-40a***	HH-60U / HH-60U (Capability Improvement)				- / 1.900	- / 1.708	- / -	- / 0.000	- / 0.000	- / 0.000
P-3a	8674 / ATP upgrade Legacy to SE (Other)		A		- / 36.150	- / 5.029	- / 28.735	- / 29.103	- / 7.200	- / 36.303
P-3a	8675 / ATP-SE Technology Insertion (Capability Improvement)		A		- / 36.954	- / 0.000	- / 15.122	- / 13.386	- / 22.000	- / 35.386
P-3a	8733 / Battlefield ABN Comm Node (BACN) (Other)		A		- / 1.990	- / 7.500	- / 0.000	- / 19.373	- / 14.131	- / 33.504
P-3a	8735 / DAS000 (ROBE) (Capability Improvement)		A		- / -	- / 0.000	- / 10.381	- / 0.000	- / 10.400	- / 10.400
P-40	**Total Gross/Weapon System Cost**				**- / 287.411**	**- / 41.386**	**- / 69.449**	**- / 62.010**	**- / 53.731**	**- / 115.741**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-40a***	8669 / Full Combat Mission Training (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / 76.404
P-40a***	8670 / MAF Training (Capability Improvement)				- / 24.902	- / 16.527	- / 0.099	- / 0.101	- / -	- / 75.315
P-40a***	99999J / MISCELLANEOUS LOW COSTS MODS (Combat Developments) (Other)				- / 4.616	- / 0.154	- / 0.157	- / 0.160	- / -	- / 147.922
P-40a***	HH-60U / HH-60U (Capability Improvement)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 3.608
P-3a	8674 / ATP upgrade Legacy to SE (Other)		A		- / 29.861	- / 31.043	- / 0.987	- / 1.005	- / 0.000	- / 169.113
P-3a	8675 / ATP-SE Technology Insertion (Capability Improvement)		A		- / 13.621	- / 13.865	- / 14.142	- / 14.399	- / 0.000	- / 143.489
P-3a	8733 / Battlefield ABN Comm Node (BACN) (Other)		A		- / 64.826	- / 22.392	- / 3.967	- / 3.967	- / -	- / 138.146
P-3a	8735 / DAS000 (ROBE) (Capability Improvement)		A		- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / 20.781
P-40	**Total Gross/Weapon System Cost**				**- / 137.826**	**- / 83.981**	**- / 19.352**	**- / 19.632**	**- / 0.000**	**- / 774.778**

*** Although this is an Exhibit P-40a item, the actual exhibit is not included since all of the required information for this item is already being shown here.

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** OTHACF / Other Aircraft	**Modification Number / Title:** 8674 / ATP upgrade Legacy to SE
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	36.150	5.029	28.735	29.103	7.200	36.303	29.861	31.043	0.987	1.005	0.000	169.113
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	36.150	5.029	28.735	29.103	7.200	36.303	29.861	31.043	0.987	1.005	0.000	169.113
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**36.150**	**5.029**	**28.735**	**29.103**	**7.200**	**36.303**	**29.861**	**31.043**	**0.987**	**1.005**	**0.000**	**169.113**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The LITENING and Sniper ATP contracts will address requirements centered on new capability as well as hardware and software upgrades necessary to align with the most current pod configuration. This would include host platform integration and test, modification of spares, correction of service life deficiencies, technical orders, repair data, studies, support of depot repair requirements and all modifications necessary to capitalize on the most current required capability. In addition, this requirement provides for program management support. Funds may be used to address emerging and short-notice Diminishing Manufacturing Sources and Material Shortages (DMSMS) issues.

Quantities will vary based on funding, negotiated prices and COCOM requirements.

Milestone/Development Status

Milestone/Development Status

Legacy will incorporate SE capabilities already developed through the SE contract.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	5.029	28.735	29.103	7.200	36.303	29.861	31.043	0.987	1.005
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**5.029**	**28.735**	**29.103**	**7.200**	**36.303**	**29.861**	**31.043**	**0.987**	**1.005**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** OTHACF / Other Aircraft	**Modification Number / Title:** 8674 / ATP upgrade Legacy to SE
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: A-10, F-15C, F-15E, F-16, B-1, B-52	**Modification Type:** Other	**Related RDT&E PEs:** 0207249F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Upgrade Kit												
A Kits												
Recurring												
Upgrade Kit:INSTALL KITS Group A (Active)	77 / 34.592	32 / 4.600	190 / 27.305	200 / 27.633	- / -	200 / 27.633	200 / 28.361	200 / 29.473	2 / 0.937	- / 1.005	- / -	901 / 153.906
Upgrade Kit:INSTALL KITS Group A (Reserve)	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
Subtotal: Recurring	*- / 34.592*	*- / 4.600*	*- / 27.305*	*- / 27.633*	*- / -*	*- / 27.633*	*- / 28.361*	*- / 29.473*	*- / 0.937*	*- / 1.005*	*- / -*	*- / 153.906*
Subtotal: Upgrade Kit	*- / 34.592*	*- / 4.600*	*- / 27.305*	*- / 27.633*	*- / -*	*- / 27.633*	*- / 28.361*	*- / 29.473*	*- / 0.937*	*- / 1.005*	*- / -*	*- / 153.906*
Subtotal: Procurement, All Modification Items	*- / 34.592*	*- / 4.600*	*- / 27.305*	*- / 27.633*	*- / -*	*- / 27.633*	*- / 28.361*	*- / 29.473*	*- / 0.937*	*- / 1.005*	*- / -*	*- / 153.906*
Support *(All Modification Items)*												
GROUP A: TOTAL NONRECURRING	- / -	- / -	- / -	- / -	- / 7.200	- / 7.200	- / -	- / -	- / -	- / -	- / -	- / 7.200
PMA - Contractor Services	- / 0.386	- / 0.200	- / 0.860	- / 0.880	- / -	- / 0.880	- / 0.900	- / 0.940	- / 0.030	- / -	- / -	- / 4.196
PMA - Other Gov't Costs	- / 1.172	- / 0.229	- / 0.570	- / 0.590	- / -	- / 0.590	- / 0.600	- / 0.630	- / 0.020	- / -	- / -	- / 3.811
Subtotal: Support	*- / 1.558*	*- / 0.429*	*- / 1.430*	*- / 1.470*	*- / 7.200*	*- / 8.670*	*- / 1.500*	*- / 1.570*	*- / 0.050*	*- / -*	*- / -*	*- / 15.207*
Installation												
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*
Total												
Total Cost (Procurement + Support + Installation)	**36.150**	**5.029**	**28.735**	**29.103**	**7.200**	**36.303**	**29.861**	**31.043**	**0.987**	**1.005**	**0.000**	**169.113**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** OTHACF / Other Aircraft	**Modification Number / Title:** 8674 / ATP upgrade Legacy to SE
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 1 of 1: Upgrade Kit

Manufacturer Information

Manufacturer Name: Lockheed Martin	Manufacturer Location: Orlando, FL
Administrative Leadtime *(in Months)*: 1	Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Mar 2017	Mar 2018	Mar 2019	Mar 2020	Mar 2021	Mar 2022	
Delivery Dates	Mar 2018	Mar 2019	Mar 2020	Mar 2021	Mar 2022	Mar 2023	

Manufacturer Name: Northrop Grumman	Manufacturer Location: Rolling Meadows, IL
Administrative Leadtime *(in Months)*: 1	Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Mar 2017	Mar 2018	Mar 2019	Mar 2020	Mar 2021	Mar 2022	
Delivery Dates	Mar 2018	Mar 2019	Mar 2020	Mar 2021	Mar 2022	Mar 2023	

Installation Information

Method of Implementation (Organic): Org/Intermediate	**Installation Quantity:** 903

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** OTHACF / Other Aircraft	**Modification Number / Title:** 8675 / ATP-SE Technology Insertion
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	36.954	0.000	15.122	13.386	22.000	35.386	13.621	13.865	14.142	14.399	0.000	143.489
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	36.954	0.000	15.122	13.386	22.000	35.386	13.621	13.865	14.142	14.399	0.000	143.489
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**36.954**	**0.000**	**15.122**	**13.386**	**22.000**	**35.386**	**13.621**	**13.865**	**14.142**	**14.399**	**0.000**	**143.489**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This effort improves the critical capability of Combat Identification (CID) by adding the radio-based CID (RBCI) technology. The LITENING and Sniper ATP contracts will address requirements centered on hardware and software upgrades and associated host platform integration (to include necessary test), modification of spares, correction of service life deficiencies, technical orders, repair data, studies and support of organic depot repair requirements. Modification of legacy pods to ATP-SE standards may be necessary for modifications. In addition, this requirement provides for program management support. Quantities will vary based on negotiated prices. Funds may be used to address emerging and short-notice Diminishing Manufacturing and Material Shortage (DMSMS) issues.

Milestone/Development Status

Upgrades will incorporate capabilities developed by industry and through the SE contract.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	15.122	13.386	22.000	35.386	13.621	13.865	14.142	14.399
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**0.000**	**15.122**	**13.386**	**22.000**	**35.386**	**13.621**	**13.865**	**14.142**	**14.399**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** OTHACF / Other Aircraft	**Modification Number / Title:** 8675 / ATP-SE Technology Insertion
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: A-10, F-15C, F-15E, F-16, B-1, B-52	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0207249F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: RBCI												
A Kits												
Recurring												
RBCI:INSTALL KITS Group A (Active)	13 / 36.954	- / -	152 / 13.302	144 / 8.218	- / -	144 / 8.218	144 / 3.557	134 / 4.073	72 / 4.350	- / 7.055	- / -	659 / 77.509
Subtotal: Recurring	*- / 36.954*	*- / -*	*- / 13.302*	*- / 8.218*	*- / -*	*- / 8.218*	*- / 3.557*	*- / 4.073*	*- / 4.350*	*- / 7.055*	*- / -*	*- / 77.509*
Subtotal: RBCI	*- / 36.954*	*- / -*	*- / 13.302*	*- / 8.218*	*- / -*	*- / 8.218*	*- / 3.557*	*- / 4.073*	*- / 4.350*	*- / 7.055*	*- / -*	*- / 77.509*
Subtotal: Procurement, All Modification Items	*- / 36.954*	*- / -*	*- / 13.302*	*- / 8.218*	*- / -*	*- / 8.218*	*- / 3.557*	*- / 4.073*	*- / 4.350*	*- / 7.055*	*- / -*	*- / 77.509*
Support *(All Modification Items)*												
GROUP A: TOTAL NONRECURRING	- / 0.000	- / -	- / -	- / -	- / 22.000	- / 22.000	- / -	- / -	- / -	- / -	- / -	- / 22.000
Subtotal: Support	*- / 0.000*	*- / -*	*- / -*	*- / -*	*- / 22.000*	*- / 22.000*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 22.000*
Installation												
Modification Item 1 of 1: RBCI	- / -	- / -	13 / 1.820	76 / 5.168	- / -	76 / 5.168	148 / 10.064	144 / 9.792	144 / 9.792	98 / 7.344	36 / 0.000	659 / 43.980
Subtotal: Installation	*- / -*	*- / -*	*13 / 1.820*	*76 / 5.168*	*- / -*	*76 / 5.168*	*148 / 10.064*	*144 / 9.792*	*144 / 9.792*	*98 / 7.344*	*36 / -*	*659 / 43.980*
Total												
Total Cost (Procurement + Support + Installation)	**36.954**	**0.000**	**15.122**	**13.386**	**22.000**	**35.386**	**13.621**	**13.865**	**14.142**	**14.399**	**0.000**	**143.489**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** OTHACF / Other Aircraft	**Modification Number / Title:** 8675 / ATP-SE Technology Insertion
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 1 of 1: RBCI

Manufacturer Information

Manufacturer Name: Lockheed Martin	Manufacturer Location: Orlando, FL
Administrative Leadtime *(in Months)*: 1	Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Jun 2018	Jun 2019	Jun 2020	Jun 2021	Jun 2022	
Delivery Dates		Jun 2019	Jun 2020	Jun 2021	Jun 2022	Jun 2023	

Manufacturer Name: Northrop Grumman	Manufacturer Location: Rolling Meadows, IL
Administrative Leadtime *(in Months)*: 1	Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Jun 2018	Jun 2019	Jun 2020	Jun 2021	Jun 2022	
Delivery Dates		Jun 2019	Jun 2020	Jun 2021	Jun 2022	Jun 2023	

Installation Information

Method of Implementation: Contractor Facility

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	13 / 1.820	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	13 / 1.820
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	76 / 5.168	- / -	76 / 5.168	76 / 5.168	- / -	- / -	- / -	- / -	152 / 10.336
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	72 / 4.896	72 / 4.896	- / -	- / -	- / -	144 / 9.792
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	72 / 4.896	72 / 4.896	- / -	- / -	144 / 9.792
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	72 / 4.896	62 / 4.896	- / -	134 / 9.792
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	36 / 2.448	36 / 0.000	72 / 2.448
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	13 / 1.820	76 / 5.168	- / -	76 / 5.168	148 / 10.064	144 / 9.792	144 / 9.792	98 / 7.344	36 / 0.000	659 / 43.980

Installation Schedule

		FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023					
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	0	-	-	-	-	-	-	13	-	-	-	38	38	38	38	36	36	36	36	36	36	36	36	36	36	36	26	18	18	36	659
Out	0	-	-	-	-	-	-	-	-	-	13	-	-	-	38	38	38	38	36	36	36	36	36	36	36	36	36	36	36	98	659

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** OTHACF / Other Aircraft	**Modification Number / Title:** 8733 / Battlefield ABN Comm Node (BACN)
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	1.990	7.500	0.000	19.373	14.131	33.504	64.826	22.392	3.967	3.967	-	138.146
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1.990	7.500	0.000	19.373	14.131	33.504	64.826	22.392	3.967	3.967	-	138.146
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1.990**	**7.500**	**0.000**	**19.373**	**14.131**	**33.504**	**64.826**	**22.392**	**3.967**	**3.967**	**-**	**138.146**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This program, P-3A Mod 8733, Battlefield ABN Comm Node (BACN), is a new start.
Battlefield Airborne Communication Node (BACN) provides a Combatant Commander (CCDR) flexible, long-endurance, responsive airborne communications capability in permissive to contested environments. BACN provides a dedicated airborne capability to conduct voice bridging/translation, Tactical Data Link (TDL) gateway, and TDL relay functions for beyond-line-of-sight (BLOS) data communications.

Milestone/Development Status

The program is currently in the Operations and Support (O&S) Phase of the Life Cycle Management System. FY19 will start the transition from an OCO funded program to a baseline funded program. BACN includes the payload, its host platforms (4 E-11A and 3 EQ-4B)and associated ground systems.
Funding will be used to address Diminishing Manufacturing Sources (DMS) issues. Funding will also be used for fulfillment of requirements in support of alteration, conversion, modernization or transition to a normalized program (PoR). This may include modifications required for enhanced capability and improvements to system reliability and maintainability.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	7.500	-	19.373	14.131	33.504	64.826	22.392	3.967	3.967
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**7.500**	**0.000**	**19.373**	**14.131**	**33.504**	**64.826**	**22.392**	**3.967**	**3.967**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** OTHACF / Other Aircraft	**Modification Number / Title:** 8733 / Battlefield ABN Comm Node (BACN)
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: MULTI	**Modification Type:** Other	**Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 5: BACN Terminals												
A Kits												
Recurring												
BACN Terminals:INSTALL KITS Group A (Active)	0 / 1.990	- / 7.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 9.490
Subtotal: Recurring	*- / 1.990*	*- / 7.500*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 9.490*
Subtotal: BACN Terminals	*- / 1.990*	*- / 7.500*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 9.490*
Modification Item 2 of 5: CONUS Base Aircraft Support Equipment and Spares												
A Kits												
Recurring												
CONUS Base Aircraft Support Equipment and Spares:INSTALL KITS Group A (Active)	- / -	- / -	- / -	- / 3.965	- / -	- / 3.965	- / 55.457	- / 22.392	- / -	- / -	- / -	- / 81.814
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / 3.965*	*- / -*	*- / 3.965*	*- / 55.457*	*- / 22.392*	*- / -*	*- / -*	*- / -*	*- / 81.814*
Subtotal: CONUS Base Aircraft Support Equipment and Spares	*- / -*	*- / -*	*- / -*	*- / 3.965*	*- / -*	*- / 3.965*	*- / 55.457*	*- / 22.392*	*- / -*	*- / -*	*- / -*	*- / 81.814*
Modification Item 3 of 5: Ground Unit Integration												
A Kits												
Recurring												
Ground Unit Integration:INSTALL KITS Group A (Active)	- / -	- / -	- / -	- / 9.457	- / -	- / 9.457	- / 9.369	- / 0.000	- / 0.000	- / 0.000	- / -	- / 18.826
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / 9.457*	*- / -*	*- / 9.457*	*- / 9.369*	*- / 0.000*	*- / 0.000*	*- / 0.000*	*- / -*	*- / 18.826*
Subtotal: Ground Unit Integration	*- / -*	*- / -*	*- / -*	*- / 9.457*	*- / -*	*- / 9.457*	*- / 9.369*	*- / 0.000*	*- / 0.000*	*- / 0.000*	*- / -*	*- / 18.826*
Modification Item 4 of 5: Prototype E-11 Modification												
A Kits												
Recurring												
Prototype E-11 Modification:INSTALL KITS Group A (Active)	- / -	- / -	- / -	- / 5.951	- / -	- / 5.951	- / -	- / -	- / 3.967	- / 3.967	- / -	- / 13.885
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / 5.951*	*- / -*	*- / 5.951*	*- / -*	*- / -*	*- / 3.967*	*- / 3.967*	*- / -*	*- / 13.885*
Subtotal: Prototype E-11 Modification	*- / -*	*- / -*	*- / -*	*- / 5.951*	*- / -*	*- / 5.951*	*- / -*	*- / -*	*- / 3.967*	*- / 3.967*	*- / -*	*- / 13.885*
Modification Item 5 of 5: SADL ETR												
A Kits												

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** OTHACF / Other Aircraft	**Modification Number / Title:** 8733 / Battlefield ABN Comm Node (BACN)
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: MULTI	**Modification Type:** Other	**Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Recurring												
SADL ETR:INSTALL KITS Group A (Active)	- / -	- / -	- / -	- / -	- / 14.131	- / 14.131	- / -	- / -	- / -	- / -	- / -	- / 14.131
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / -*	*- / 14.131*	*- / 14.131*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 14.131*
Subtotal: SADL ETR	*- / -*	*- / -*	*- / -*	*- / -*	*- / 14.131*	*- / 14.131*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 14.131*
Subtotal: Procurement, All Modification Items	*- / 1.990*	*- / 7.500*	*- / -*	*- / 19.373*	*- / 14.131*	*- / 33.504*	*- / 64.826*	*- / 22.392*	*- / 3.967*	*- / 3.967*	*- / -*	*- / 138.146*
Installation												
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*
Total												
Total Cost (Procurement + Support + Installation)	**1.990**	**7.500**	**0.000**	**19.373**	**14.131**	**33.504**	**64.826**	**22.392**	**3.967**	**3.967**	**-**	**138.146**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** OTHACF / Other Aircraft	**Modification Number / Title:** 8733 / Battlefield ABN Comm Node (BACN)

ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**

Modification Item 1 of 5: BACN Terminals

Manufacturer Information

Manufacturer Name: N/A	Manufacturer Location: N/A
Administrative Leadtime *(in Months)*:	Production Leadtime *(in Months)*:

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation (Organic): Org/Intermediate	**Installation Quantity:** 0

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** OTHACF / Other Aircraft	**Modification Number / Title:** 8733 / Battlefield ABN Comm Node (BACN)

ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**

Modification Item 2 of 5: CONUS Base Aircraft Support Equipment and Spares

Manufacturer Information

Manufacturer Name: N/A	Manufacturer Location: N/A
Administrative Leadtime *(in Months)*:	Production Leadtime *(in Months)*:

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation (Organic): Org/Intermediate	**Installation Quantity:** 0

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** OTHACF / Other Aircraft	**Modification Number / Title:** 8733 / Battlefield ABN Comm Node (BACN)

ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**

Modification Item 3 of 5: Ground Unit Integration

Manufacturer Information

Manufacturer Name: N/A	Manufacturer Location: N/A
Administrative Leadtime *(in Months)*:	Production Leadtime *(in Months)*:

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation (Organic): Org/Intermediate	**Installation Quantity:** 0

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** OTHACF / Other Aircraft	**Modification Number / Title:** 8733 / Battlefield ABN Comm Node (BACN)

ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**

Modification Item 4 of 5: Prototype E-11 Modification

Manufacturer Information

Manufacturer Name: N/A	Manufacturer Location: N/A
Administrative Leadtime *(in Months)*:	Production Leadtime *(in Months)*:

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation (Organic): Org/Intermediate	**Installation Quantity:** 0

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** OTHACF / Other Aircraft	**Modification Number / Title:** 8733 / Battlefield ABN Comm Node (BACN)

ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**

Modification Item 5 of 5: SADL ETR

Manufacturer Information

Manufacturer Name: N/A	Manufacturer Location: N/A
Administrative Leadtime *(in Months)*:	Production Leadtime *(in Months)*:

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation (Organic): Org/Intermediate	**Installation Quantity:** 0

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** OTHACF / Other Aircraft	**Modification Number / Title:** 8735 / DAS000 (ROBE)
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	0.000	10.381	0.000	10.400	10.400	0.000	0.000	0.000	0.000	-	20.781
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	10.381	0.000	10.400	10.400	0.000	0.000	0.000	0.000	-	20.781
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**10.381**	**0.000**	**10.400**	**10.400**	**0.000**	**0.000**	**0.000**	**0.000**	**-**	**20.781**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Roll-on Beyond-Line-of-Sight Enhancement (ROBE) is a beyond line-of-sight (BLOS) gateway and force multiplier enabling decision makers to leverage decision-quality information to increase predictive battlespace awareness, shorten the Find, Fix, Track, Target, Engage, Assess (F2T2EA) decision cycle, facilitate precision attack and compress the sensor to shooter kill chain. It provides a robust, secure means to exchange Link 16 and Situation Awareness Data Link (SADL) Line-of-Sight (LOS) to BLOS recipients. 40 KC-135 aircraft are currently modified with ROBE A Kits in the combat theater and 20 ROBE B Kits are fielded and in the inventory.

ROBE is an ancillary capability with the aerial refueling mission. ROBE is a high demand asset supporting Joint Warfighters in the combat theater and has proven a valuable asset to geographically separated ground and airborne assets - specifically, special operations, troops in contact and strike/targeting missions.

This line item funds the procurement of additional ROBE B kits due to increasing Tactical Data Link mission requirements. Additionally, this line item may be used in fulfillment of requirements in support of alteration, conversion, modernization or service life extension efforts for the ROBE system. Modifications required for enhanced capability and improvements to system reliability and maintainability are included. Funding may be used to address Diminishing Manufacturing Sources (DMS) issues.

Milestone/Development Status

Initial Operational Capability (IOC) for ROBE was declared April 2006.

ROBE is currently in the Operations and Support (O&S) Phase of the Life Cycle Management System.

All development activities to support ROBE Spiral 2 KC-135 integration were completed. 40 KC-135 aircraft were modified with ROBE Spiral 2 A Kit hardware and 20 ROBE Spiral 2 B Kits were fielded.

All development activities to support ROBE Spiral 3 B Kit Tech Refresh were completed. Upon receipt of the 605 Test Evaluation Squadron (TES) fielding recommendation and Authority to Operate (ATO), fielding of those kits will begin.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	10.381	-	10.400	10.400	-	-	-	-

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** OTHACF / Other Aircraft	**Modification Number / Title:** 8735 / DAS000 (ROBE)
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.000	10.381	0.000	10.400	10.400	0.000	0.000	0.000	0.000

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** OTHACF / Other Aircraft	**Modification Number / Title:** 8735 / DAS000 (ROBE)
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: KC-135, KC-46A	**Modification Type:** Capability Improvement	**Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Robe												
B Kits												
Recurring												
Robe:EQUIPMENT Group B (Active)	- / -	- / -	11 / 10.381	- / -	10 / 10.400	10 / 10.400	- / -	- / -	- / -	- / -	- / -	21 / 20.781
Subtotal: Recurring	- / -	- / -	- / 10.381	- / -	- / 10.400	- / 10.400	- / -	- / -	- / -	- / -	- / -	- / 20.781
Subtotal: Robe	- / -	- / -	- / 10.381	- / -	- / 10.400	- / 10.400	- / -	- / -	- / -	- / -	- / -	- / 20.781
Subtotal: Procurement, All Modification Items	- / -	- / -	- / 10.381	- / -	- / 10.400	- / 10.400	- / -	- / -	- / -	- / -	- / -	- / 20.781
Installation												
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total												
Total Cost (Procurement + Support + Installation)	**-**	**0.000**	**10.381**	**0.000**	**10.400**	**10.400**	**0.000**	**0.000**	**0.000**	**0.000**	**-**	**20.781**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** OTHACF / Other Aircraft	**Modification Number / Title:** 8735 / DAS000 (ROBE)
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 1 of 1: Robe

Manufacturer Information

Manufacturer Name: Northrop Grumman Information Systems	Manufacturer Location: 9326 Spectrum Center Blvd, San Diego, CA 92123
Administrative Leadtime *(in Months)*: 1	Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Nov 2017	Nov 2018				
Delivery Dates		Nov 2018	Nov 2019				

Installation Information

Method of Implementation (Organic): Org/Intermediate	**Installation Quantity:** 21

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** PRDTB2 / MQ-9 Mods

ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0205219F	**Other Related Program Elements:** 0205219F

Line Item MDAP/MAIS Code: 424

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	591.509	203.697	321.140	171.548	0.000	171.548	428.594	233.646	218.273	174.610	579.910	2,922.927
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	591.509	203.697	321.140	171.548	0.000	171.548	428.594	233.646	218.273	174.610	579.910	2,922.927
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**591.509**	**203.697**	**321.140**	**171.548**	**0.000**	**171.548**	**428.594**	**233.646**	**218.273**	**174.610**	**579.910**	**2,922.927**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The MQ-9 Reaper system is designed primarily to prosecute critical emerging Time Sensitive Targets (TSTs) as a radar-based attack asset with organic hard-kill capability (hunter-killer) and to perform Intelligence, Surveillance, Reconnaissance and Target Acquisition (ISR TA) as a secondary role. In the hunter-killer role, the aircraft employs multi-spectral sensors to automatically find, fix, and track ground targets using Automatic Target Cueing (ATC), and assess post-strike results. The basic MQ-9 Reaper system consists of the aircraft, sensors, a ground control station (GCS), communications equipment, weapon kits, support equipment, simulator and training devices, Readiness Spares Packages (RSP), technical data/training, and personnel required to operate, maintain, and sustain the system. The aircraft is designed to be modular and open-ended. Mission-specific equipment is employed in a 'plug-and-play' mission kit concept allowing specific aircraft and control station configurations to be tailored to fit mission needs. The MQ-9 aircraft will continue to be modified to ensure aircraft are standardized with the latest configuration. Additionally, the MQ-9 system will continue to evolve and upgrade its capabilities to satisfy new requirements and address Reliability and Maintainability (R&M) and safety issues as they arise. Retrofit also includes, but is not limited to, aircraft (including sensors), ground control station and ground support system retrofits to baseline configurations.

There are currently 167 Blk 1 and 68 Blk 5 MQ-9 (as of 1 Jan 2018) aircraft totaling 235 in the inventory with an estimated designed service life of 20,000 hours. Not all 219 aircraft will receive every modification. Modification quantities will vary due to attrition and aircraft being modified by other customers. For each P-3a the number of aircraft funded with baseline modification funding is identified.

Efforts in this modification summary and associated P3as have been broken out into several categories: GCS Blk 50, Block 5 aircraft, Multi-Spectral Targeting System-B (MTS-B) High Definition (HD), Technology Insertion, MQ-9 Extended Range, MQ-9 Low Cost Mods, MQ-9 Field, Lynx Synthetic Aperture Radar (SAR), GCS Blk 30, Reliability and Maintainability (R&M) enhancements, MQ-9 Upgrades, GCS Tech Refresh and Communication Enhancements.

This program will revise quantities based on updated user requirements, aircraft availability, and as funding permits. Funding may be used to address Diminishing Manufacturing Sources (DMS) and Non-Recurring Engineering (NRE) issues.

This program has associated Research, Development Test and Evaluation (RDT&E) AF funding in MQ-9 PE 0205219F.

Funding may be used to address Diminishing Manufacturing Sources (DMS) issues.

Funding for this exhibit contained in PE 0205219F.

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft

P-1 Line Item Number / Title:
PRDTB2 / MQ-9 Mods

ID Code (A=Service Ready, B=Not Service Ready): B | **Program Elements for Code B Items:** 0205219F | **Other Related Program Elements:** 0205219F

Line Item MDAP/MAIS Code: 424

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-3a	9151 / Block 5 (Capability Improvement)		B		- / 7.360	- / 6.920	- / 11.980	- / 13.374	- / 0.000	- / 13.374
P-3a	9152 / MQ-9 Field (Capability Improvement)		B		- / 185.132	- / 19.340	- / 32.669	- / 49.620	- / 0.000	- / 49.620
P-3a	9154 / Lynx SAR (Capability Improvement)		B		- / 82.482	- / 0.000	- / 17.650	- / 12.860	- / 0.000	- / 12.860
P-3a	9155 / GCS Blk 30 (Capability Improvement)		B		- / 89.800	- / 13.867	- / 10.894	- / 21.212	- / 0.000	- / 21.212
P-3a	9159 / R&M enhancements (Reliability & Maintainability)		B		- / 71.026	- / 0.407	- / 2.990	- / 1.820	- / 0.000	- / 1.820
P-3a	9164 / Extended Range MQ-9 (Capability Improvement)		B		- / 142.689	- / 33.825	- / 54.686	- / 54.836	- / 0.000	- / 54.836
P-3a	9167 / MQ-9 Upgrade (Capability Improvement)		B		- / -	- / 129.338	- / 188.271	- / 15.826	- / 0.000	- / 15.826
P-3a	9168 / Dismount Radar (Capability Improvement)		B		- / -	- / -	- / -	- / -	- / -	- / -
P-3a	1 / MQ-9 Low Cost Mods (Reliability & Maintainability)		B		- / 13.020	- / 0.000	- / 2.000	- / 2.000	- / 0.000	- / 2.000
P-40	**Total Gross/Weapon System Cost**				**- / 591.509**	**- / 203.697**	**- / 321.140**	**- / 171.548**	**- / 0.000**	**- / 171.548**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-3a	9151 / Block 5 (Capability Improvement)		B		- / 2.440	- / 1.430	- / 4.120	- / 23.270	- / 11.510	- / 82.404
P-3a	9152 / MQ-9 Field (Capability Improvement)		B		- / 54.830	- / 39.410	- / 4.190	- / -	- / -	- / 385.191
P-3a	9154 / Lynx SAR (Capability Improvement)		B		- / 0.110	- / 0.000	- / 0.000	- / -	- / -	- / 113.102
P-3a	9155 / GCS Blk 30 (Capability Improvement)		B		- / 31.260	- / 11.276	- / 0.000	- / 0.000	- / 0.000	- / 178.309
P-3a	9159 / R&M enhancements (Reliability & Maintainability)		B		- / 2.850	- / 13.470	- / 27.930	- / 61.733	- / 25.310	- / 207.536
P-3a	9164 / Extended Range MQ-9 (Capability Improvement)		B		- / 47.156	- / 74.220	- / 63.083	- / 16.157	- / 0.000	- / 486.652
P-3a	9167 / MQ-9 Upgrade (Capability Improvement)		B		- / 244.948	- / 46.840	- / 59.950	- / 61.450	- / 539.090	- / 1,285.713
P-3a	9168 / Dismount Radar (Capability Improvement)		B		- / 45.000	- / 45.000	- / 57.000	- / 10.000	- / 0.000	- / 157.000
P-3a	1 / MQ-9 Low Cost Mods (Reliability & Maintainability)		B		- / 0.000	- / 2.000	- / 2.000	- / 2.000	- / 4.000	- / 27.020
P-40	**Total Gross/Weapon System Cost**				**- / 428.594**	**- / 233.646**	**- / 218.273**	**- / 174.610**	**- / 579.910**	**- / 2,922.927**

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** PRDTB2 / MQ-9 Mods	**Modification Number / Title:** 9151 / Block 5
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	7.360	6.920	11.980	13.374	0.000	13.374	2.440	1.430	4.120	23.270	11.510	82.404
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	7.360	6.920	11.980	13.374	0.000	13.374	2.440	1.430	4.120	23.270	11.510	82.404
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**7.360**	**6.920**	**11.980**	**13.374**	**0.000**	**13.374**	**2.440**	**1.430**	**4.120**	**23.270**	**11.510**	**82.404**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This modification program includes 2 overarching projects:

Will upgrade all MQ-9 Block 1 aircraft and Block 15 GCS with NSA Type 1 Encryption. This will include but not be limited to upgrading the secure communications for our aircraft.

NOTE: As of 21 June 2017, ACC/A5I has directed the Program Office to cease the Blk 1 to Blk 5 conversion. The Program Office is currently researching and costing which components of the Blk 1 will need to be upgraded to remain operational, but the wholesale conversion of the Blk 1 to Blk 5 fleet is cancelled. In response, the Program Office will procure more Blk 5 aircraft in FY19-FY23 to address service life concerns with the current fleet. That procurement is still being analyzed and will most likely result in an additional aircraft being placed in the base for FY20-23.

The second project incorporates the approved Hybrid Acquisition Strategy via a schedule driven release of capability, adding new capability into the MQ-9 Block 5 configuration. Specifically, Release 1 ("Block 5 Modification Project 2) includes, but is not limited to: Vortex Block 5. Release 1 covered under the "Block 5 modification program, the program office will modify 156 Block 5 aircraft.

Requirements for this modification are validated in the MQ-9 Capability Production Document dated 8 August 2006.

This program will revise quantities based on updated user requirements and as funding permits. Funding may be used to address Diminishing Manufacturing Sources (DMS) and Non-Recurring Engineering (NRE) issues.

Milestone/Development Status

MQ-9 Block 5 Critical Design Review (CDR) completed April 2011. Block 5 is in flight test with 904.6 software release. Developmental Test was completed July 2015. FOT&E completed December 2016.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** PRDTB2 / MQ-9 Mods	**Modification Number / Title:** 9151 / Block 5
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: MQ-9	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0205219F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0205219F	- / 1,084.050	- / 151.373	- / 204.221	- / 194.746	- / -	- / 194.746	- / 185.807	- / 177.999	- / 169.807	- / -	- / -	- / 2,168.003
Procurement												
Modification Item 1 of 2: Blk 1 to Blk 5												
B Kits												
Recurring												
Blk 1 to Blk 5:EQUIPMENT Group B (Active)	- / -	- / -	- / -	- / -	- / -	- / -	14 / 0.170	14 / 0.590	36 / 0.680	48 / 0.560	96 / 5.840	208 / 7.840
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.170*	*- / 0.590*	*- / 0.680*	*- / 0.560*	*- / 5.840*	*- / 7.840*
Subtotal: Blk 1 to Blk 5	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.170*	*- / 0.590*	*- / 0.680*	*- / 0.560*	*- / 5.840*	*- / 7.840*
Modification Item 2 of 2: Hybrid Release 1												
A Kits												
Recurring												
Hybrid Release 1:INSTALL KITS Group A (Active)	14 / 0.611	48 / 0.612	48 / 1.088	46 / 1.066	- / -	46 / 1.066	- / -	- / -	- / -	- / -	- / -	156 / 3.377
Subtotal: Recurring	*- / 0.611*	*- / 0.612*	*- / 1.088*	*- / 1.066*	*- / -*	*- / 1.066*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 3.377*
B Kits												
Recurring												
Hybrid Release 1:EQUIPMENT Group B (Active)	14 / 5.360	48 / 5.283	48 / 9.792	46 / 9.594	- / -	46 / 9.594	- / -	- / -	- / -	- / -	- / -	156 / 30.029
Subtotal: Recurring	*- / 5.360*	*- / 5.283*	*- / 9.792*	*- / 9.594*	*- / -*	*- / 9.594*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 30.029*
Subtotal: Hybrid Release 1	*- / 5.971*	*- / 5.895*	*- / 10.880*	*- / 10.660*	*- / -*	*- / 10.660*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 33.406*
Subtotal: Procurement, All Modification Items	*- / 5.971*	*- / 5.895*	*- / 10.880*	*- / 10.660*	*- / -*	*- / 10.660*	*- / 0.170*	*- / 0.590*	*- / 0.680*	*- / 0.560*	*- / 5.840*	*- / 41.246*
Support *(All Modification Items)*												
OTHER GOVT	- / 0.139	- / 1.025	- / 1.100	- / 1.610	- / -	- / 1.610	- / 0.810	- / 0.660	- / 2.940	- / 20.050	- / 4.430	- / 32.764
Subtotal: Support	*- / 0.139*	*- / 1.025*	*- / 1.100*	*- / 1.610*	*- / -*	*- / 1.610*	*- / 0.810*	*- / 0.660*	*- / 2.940*	*- / 20.050*	*- / 4.430*	*- / 32.764*
Installation												
Modification Item 1 of 2: Blk 1 to Blk 5	- / -	- / -	- / -	- / -	- / -	- / -	14 / 0.460	14 / 0.180	36 / 0.500	48 / 2.660	96 / 1.240	208 / 5.040
Modification Item 2 of 2: Hybrid Release 1	14 / 1.250	- / -	12 / 0.000	48 / 1.104	- / -	48 / 1.104	48 / 1.000	34 / 0.000	- / -	- / -	- / -	156 / 3.354
Subtotal: Installation	*14 / 1.250*	*- / -*	*12 / -*	*48 / 1.104*	*- / -*	*48 / 1.104*	*62 / 1.460*	*48 / 0.180*	*36 / 0.500*	*48 / 2.660*	*96 / 1.240*	*364 / 8.394*
Total												
Total Cost (Procurement + Support + Installation)	**7.360**	**6.920**	**11.980**	**13.374**	**0.000**	**13.374**	**2.440**	**1.430**	**4.120**	**23.270**	**11.510**	**82.404**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** PRDTB2 / MQ-9 Mods	**Modification Number / Title:** 9151 / Block 5
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 2: Blk 1 to Blk 5

Manufacturer Information

Manufacturer Name: General Atomics ASI	Manufacturer Location: Poway, CA
Administrative Leadtime *(in Months)*: 1	Production Leadtime *(in Months)*: 6

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Jun 2017	Jun 2018	Jan 2019	Nov 2019	Jan 2021	Jan 2022	Jan 2023
Delivery Dates	Dec 2017	Dec 2018	Jul 2019	May 2020	Jul 2021	Jul 2022	Jul 2023

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	14 / 0.460	- / -	- / -	- / -	- / -	14 / 0.460
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	14 / 0.180	- / -	- / -	- / -	14 / 0.180
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	36 / 0.500	- / -	- / -	36 / 0.500
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	48 / 2.660	- / -	48 / 2.660
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	96 / 1.240	96 / 1.240
Total	- / -	- / -	- / -	- / -	- / -	- / -	14 / 0.460	14 / 0.180	36 / 0.500	48 / 2.660	96 / 1.240	208 / 5.040

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	-	-	4	5	5	3	3	4	4	9	9	9	9	12	12	12	12	96	208
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	4	5	5	3	3	4	4	9	9	9	9	12	12	12	12	96	208

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** PRDTB2 / MQ-9 Mods	**Modification Number / Title:** 9151 / Block 5
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Modification Item 2 of 2: Hybrid Release 1		

Manufacturer Information

Manufacturer Name: General Atomics ASI	Manufacturer Location: Poway, CA
Administrative Leadtime *(in Months)*: 8	Production Leadtime *(in Months)*: 6

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Jun 2017	Jun 2018	Jun 2019	Jun 2020	Jun 2021	Jun 2022	Jun 2023
Delivery Dates	Dec 2017	Dec 2018	Dec 2019	Dec 2020	Dec 2021	Dec 2022	Dec 2023

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	14 / 1.250	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	14 / 1.250
FY 2017	- / -	- / -	12 / 0.000	36 / 0.094	- / -	36 / 0.094	- / -	- / -	- / -	- / -	- / -	48 / 0.094
FY 2018	- / -	- / -	- / -	12 / 1.010	- / -	12 / 1.010	36 / 0.000	- / -	- / -	- / -	- / -	48 / 1.010
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	12 / 1.000	34 / 0.000	- / -	- / -	- / -	46 / 1.000
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	14 / 1.250	- / -	12 / 0.000	48 / 1.104	- / -	48 / 1.104	48 / 1.000	34 / 0.000	- / -	- / -	- / -	156 / 3.354

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	14	-	-	-	-	-	-	-	12	12	12	12	12	12	12	12	12	12	12	10	-	-	-	-	-	-	-	-	-	0	156
Out	14	-	-	-	-	-	-	-	12	12	12	12	12	12	12	12	12	12	12	10	-	-	-	-	-	-	-	-	-	0	156

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** PRDTB2 / MQ-9 Mods	**Modification Number / Title:** 9152 / MQ-9 Field
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	185.132	19.340	32.669	49.620	0.000	49.620	54.830	39.410	4.190	-	-	385.191
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	185.132	19.340	32.669	49.620	0.000	49.620	54.830	39.410	4.190	-	-	385.191
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**185.132**	**19.340**	**32.669**	**49.620**	**0.000**	**49.620**	**54.830**	**39.410**	**4.190**	**-**	**-**	**385.191**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This modification is a portion of the field retrofit program that upgrades MQ-9 aircraft with enhanced capabilities and utilizes a field team to perform the modification. Upgrades that are part of this modification, include but are not limited to, include High Definition (HD) aircraft upgrades, Bomb Release Units (BRU)-71 bomb racks, Heavyweight Main Landing Gear (HMLG), VORTEX encrypted datalink, Stores Management System (SMS), Selective Availability Anti-Spoofing Module (SAASM), Cast sump, fuel bladders, Barrett Asymmetric Digital Data Link Computers (BADDC), Beyond Line of Site (BLOS), and Global Positioning System (GPS) splitter.use of Retrofit facility space, The associated costs reflect all costs associated with the multiple elements of the MQ-9 field retrofits.

The quantity of aircraft for each modification varies depending on when the capability was cut into production. This program will revise quantities based on updated user requirements and as funding permits. Funding may be used to address Diminishing Manufacturing Sources (DMS) and Non-Recurring Engineering (NRE) issues.

FY19 Activities include but not limited to:
- Depot Level Installs of 16 Heavy Weight Main Landing Gear Kits*
- Modification/Installation of 49 Cast Sump/Fuel Bladders
- Modification/Installation of 36 Blk 1 BADDC (aircraft)
- Modification/Installation of 36 Blk 1 BADDC (GCS)
- Modification/Installation of 36 Blk 1 BLOS/GPS Splitter

Milestone/Development Status

Development complete.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** PRDTB2 / MQ-9 Mods	**Modification Number / Title:** 9152 / MQ-9 Field
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: MQ-9	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0205219F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0205219F	- / 1,084.050	- / 151.373	- / 204.221	- / 194.746	- / -	- / 194.746	- / 185.807	- / 177.999	- / 169.807	- / -	- / -	- / 2,168.003
Procurement												
Modification Item 1 of 1: MQ-9 Field Mods												
A Kits												
Recurring												
MQ-9 Field Mods:INSTALL KITS Group A (Active)	328 / 17.661	96 / 1.340	147 / 2.772	120 / 4.265	- / -	120 / 4.265	108 / 3.500	18 / 1.924	- / -	- / -	- / -	817 / 31.462
Subtotal: Recurring	*- / 17.661*	*- / 1.340*	*- / 2.772*	*- / 4.265*	*- / -*	*- / 4.265*	*- / 3.500*	*- / 1.924*	*- / -*	*- / -*	*- / -*	*- / 31.462*
B Kits												
Recurring												
MQ-9 Field Mods:EQUIPMENT Group B (Active)	328 / 156.814	96 / 11.070	147 / 24.948	120 / 38.385	- / -	120 / 38.385	108 / 31.500	18 / 17.316	- / -2.980	- / -	- / -	817 / 277.053
Subtotal: Recurring	*- / 156.814*	*- / 11.070*	*- / 24.948*	*- / 38.385*	*- / -*	*- / 38.385*	*- / 31.500*	*- / 17.316*	*- / -2.980*	*- / -*	*- / -*	*- / 277.053*
Subtotal: MQ-9 Field Mods	*- / 174.475*	*- / 12.410*	*- / 27.720*	*- / 42.650*	*- / -*	*- / 42.650*	*- / 35.000*	*- / 19.240*	*- / -2.980*	*- / -*	*- / -*	*- / 308.515*
Subtotal: Procurement, All Modification Items	*- / 174.475*	*- / 12.410*	*- / 27.720*	*- / 42.650*	*- / -*	*- / 42.650*	*- / 35.000*	*- / 19.240*	*- / -2.980*	*- / -*	*- / -*	*- / 308.515*
Support *(All Modification Items)*												
OTHER GOVT	- / 5.597	- / 0.989	- / 2.780	- / 6.010	- / -	- / 6.010	- / 18.170	- / 18.060	- / 2.980	- / -	- / -	- / 54.586
Subtotal: Support	*- / 5.597*	*- / 0.989*	*- / 2.780*	*- / 6.010*	*- / -*	*- / 6.010*	*- / 18.170*	*- / 18.060*	*- / 2.980*	*- / -*	*- / -*	*- / 54.586*
Installation												
Modification Item 1 of 1: MQ-9 Field Mods	294 / 5.060	8 / 5.941	122 / 2.169	120 / 0.960	- / -	120 / 0.960	120 / 1.660	120 / 2.110	33 / 4.190	- / -	- / -	817 / 22.090
Subtotal: Installation	*294 / 5.060*	*8 / 5.941*	*122 / 2.169*	*120 / 0.960*	*- / -*	*120 / 0.960*	*120 / 1.660*	*120 / 2.110*	*33 / 4.190*	*- / -*	*- / -*	*817 / 22.090*
Total												
Total Cost (Procurement + Support + Installation)	**185.132**	**19.340**	**32.669**	**49.620**	**0.000**	**49.620**	**54.830**	**39.410**	**4.190**	**-**	**-**	**385.191**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** PRDTB2 / MQ-9 Mods	**Modification Number / Title:** 9152 / MQ-9 Field
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 1: MQ-9 Field Mods

Manufacturer Information

Manufacturer Name: General Atomics-ASI	Manufacturer Location: Poway, CA
Administrative Leadtime *(in Months)*: 8	Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Jun 2017	Jun 2018	Jun 2019	Jun 2020	Jun 2021		
Delivery Dates	Jun 2018	Jun 2019	Jun 2020	Jun 2021	Jun 2022		

Installation Information

Method of Implementation: Depot Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	294 / 5.060	8 / 5.941	26 / 0.477	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	328 / 11.478
FY 2017	- / -	- / -	96 / 1.692	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	96 / 1.692
FY 2018	- / -	- / -	- / -	120 / 0.960	- / -	120 / 0.960	27 / 0.000	- / -	- / -	- / -	- / -	147 / 0.960
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	93 / 1.660	27 / 0.000	- / -	- / -	- / -	120 / 1.660
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	93 / 2.110	15 / 0.000	- / -	- / -	108 / 2.110
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	18 / 4.190	- / -	- / -	18 / 4.190
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	294 / 5.060	8 / 5.941	122 / 2.169	120 / 0.960	- / -	120 / 0.960	120 / 1.660	120 / 2.110	33 / 4.190	- / -	- / -	817 / 22.090

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	294	-	-	4	4	30	31	30	31	30	30	30	30	30	30	30	30	30	30	30	30	18	15	-	-	-	-	-	-	0	817
Out	269	25	-	4	4	0	30	31	30	31	30	30	30	30	30	30	30	30	30	30	30	30	18	15	-	-	-	-	-	0	817

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** PRDTB2 / MQ-9 Mods	**Modification Number / Title:** 9154 / Lynx SAR
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	82.482	0.000	17.650	12.860	0.000	12.860	0.110	0.000	0.000	-	-	113.102
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	82.482	0.000	17.650	12.860	0.000	12.860	0.110	0.000	0.000	-	-	113.102
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**82.482**	**0.000**	**17.650**	**12.860**	**0.000**	**12.860**	**0.110**	**0.000**	**0.000**	**-**	**-**	**113.102**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Lynx Block 20A Synthetic Aperture Radar (SAR) began production in July 2012. This effort will retrofit the 110 MQ-9 aircraft still equipped with the older Lynx Block 20 SAR with the current production configuration (LNXD22000-003-000) of the Lynx Block 20A. This effort also will retrofit/upgrade the Lynx Block 20A SAR produced in the earlier LNXD22000-001 and LNXD22000-002 configurations to the current production configuration. Retrofitting all Lynx radars to the current production configuration of the Lynx Block 20A SAR will enhance fielded capability, significantly improve reliability and maintainability, provide the capability to locate and track dismounted targets, use of Retrofit facility space, resolve Diminishing Manufacturing Sources (DMS) issues with the fielded radars, address security concerns, and facilitate future growth of capabilities.

The requirement for this modification is validated in the MQ-9 Capabilities Production Document dated 8 August 2006.

This program supports all efforts to field the Lynx Block 20A SAR capability.

This program will revise quantities based on updated user requirements and as funding permits. Funding may be used to address Diminishing Manufacturing Sources (DMS) and Non-Recurring Engineering (NRE) issues.

Replacement of the Lynx Block 20 SAR is the cost driver in this modification; hence, the 110 Lynx Block 20A SARs produced for that purpose are what is shown in the schedule section of the P-3A.

Milestone/Development Status

The Lynx Block 20A SAR has completed initial development. It began production in July 2012 and was initially fielded on MQ-9 tail number AF4125 delivered 22 March 2013.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** PRDTB2 / MQ-9 Mods	**Modification Number / Title:** 9154 / Lynx SAR
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: MQ-9	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0205219F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0205219F	- / 266.222	- / 151.373	- / 204.221	- / 194.746	- / -	- / 194.746	- / 185.807	- / 177.999	- / 169.807	- / -	- / -	- / 1,350.175
Procurement												
Modification Item 1 of 1: Lynx SAR												
A Kits												
Recurring												
Lynx SAR:INSTALL KITS Group A (Active)	60 / 9.228	- / -	16 / 1.615	14 / 1.130	- / -	14 / 1.130	- / 0.070	- / -	- / -	- / -	- / -	90 / 12.043
Subtotal: Recurring	*- / 9.228*	*- / -*	*- / 1.615*	*- / 1.130*	*- / -*	*- / 1.130*	*- / 0.070*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 12.043*
B Kits												
Recurring												
Lynx SAR:EQUIPMENT Group B (Active)	60 / 70.380	- / -	16 / 14.535	14 / 10.170	- / -	14 / 10.170	- / -	- / -	- / -	- / -	- / -	90 / 95.085
Subtotal: Recurring	*- / 70.380*	*- / -*	*- / 14.535*	*- / 10.170*	*- / -*	*- / 10.170*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 95.085*
Subtotal: Lynx SAR	*- / 79.608*	*- / -*	*- / 16.150*	*- / 11.300*	*- / -*	*- / 11.300*	*- / 0.070*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 107.128*
Subtotal: Procurement, All Modification Items	*- / 79.608*	*- / -*	*- / 16.150*	*- / 11.300*	*- / -*	*- / 11.300*	*- / 0.070*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 107.128*
Support *(All Modification Items)*												
OTHER GOVT	- / 2.874	- / -	- / 1.500	- / 1.560	- / -	- / 1.560	- / 0.040	- / -	- / -	- / -	- / -	- / 5.974
Subtotal: Support	*- / 2.874*	*- / -*	*- / 1.500*	*- / 1.560*	*- / -*	*- / 1.560*	*- / 0.040*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 5.974*
Installation												
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*
Total												
Total Cost (Procurement + Support + Installation)	**82.482**	**0.000**	**17.650**	**12.860**	**0.000**	**12.860**	**0.110**	**0.000**	**0.000**	**-**	**-**	**113.102**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** PRDTB2 / MQ-9 Mods	**Modification Number / Title:** 9154 / Lynx SAR

ID Code (A=Service Ready, B=Not Service Ready) : B | **MDAP/MAIS Code:**

Modification Item 1 of 1: Lynx SAR

Manufacturer Information

Manufacturer Name: General Atomics-ASI | Manufacturer Location: Poway, CA

Administrative Leadtime *(in Months)*: 2 | Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Dec 2018	Dec 2019				
Delivery Dates		Dec 2019	Dec 2020				

Installation Information

Method of Implementation (Organic): Org/Intermediate | **Installation Quantity:** 90

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** PRDTB2 / MQ-9 Mods	**Modification Number / Title:** 9155 / GCS Blk 30
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	89.800	13.867	10.894	21.212	0.000	21.212	31.260	11.276	0.000	0.000	0.000	178.309
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	89.800	13.867	10.894	21.212	0.000	21.212	31.260	11.276	0.000	0.000	0.000	178.309
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**89.800**	**13.867**	**10.894**	**21.212**	**0.000**	**21.212**	**31.260**	**11.276**	**0.000**	**0.000**	**0.000**	**178.309**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Ground Control Station (GCS) Block 30 modernization retrofit program upgrades Fixed and Mobile GCS with new Linux processors, high definition displays, ergonomic improvements, Predator Primary Data Link (PPDL, 2nd ARC-210 radio capabilities, and Barrett Asymmetric Digital Data Link Computers (BADDC). Through an incremental approach, GCS modernization retrofits the legacy system with user-prioritized capabilities,use of Retrofit facility space, to include significant Human-Machine Interface (HMI) improvements and reliability and maintenance enhancements. Unit costs vary due to the mix of fixed and mobile retrofits, which have varying costs.

Requirement for this modification is validated in the MQ-9 Capability Production Document dated 8 August 2006.

This modification supports all efforts required to field the Block 30 GCS capability and will revise quantities based upon user requirements, GCS Availability, and available funding. Funding may be used to address Diminishing Manufacturing Sources (DMS) and Non-Recurring Engineering (NRE) issues. Funding may be used to update simulators to current configuration.

Milestone/Development Status

GCS Block 30 Critical Design Review completed Apr 2011.

Test and evaluation was completed June 2013. Operation test was completed September 2016.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** PRDTB2 / MQ-9 Mods	**Modification Number / Title:** 9155 / GCS Blk 30
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: MQ-9	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0205219F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0205219F	- / 1,084.050	- / 151.373	- / 204.221	- / 194.746	- / -	- / 194.746	- / 185.807	- / 177.999	- / 169.807	- / -	- / -	- / 2,168.003
Procurement												
Modification Item 1 of 1: GCS Block 30												
A Kits												
Recurring												
GCS Block 30:INSTALL KITS Group A (Active)	35 / 11.031	17 / 0.455	12 / 0.346	12 / 0.593	- / -	12 / 0.593	10 / 1.341	- / 0.606	- / -	- / -	- / -	86 / 14.372
Subtotal: Recurring	*- / 11.031*	*- / 0.455*	*- / 0.346*	*- / 0.593*	*- / -*	*- / 0.593*	*- / 1.341*	*- / 0.606*	*- / -*	*- / -*	*- / -*	*- / 14.372*
B Kits												
Recurring												
GCS Block 30:EQUIPMENT Group B (Active)	35 / 45.789	17 / 1.660	12 / 3.435	12 / 5.866	- / -	12 / 5.866	10 / 13.565	- / 5.540	- / -	- / -	- / -	86 / 75.855
Subtotal: Recurring	*- / 45.789*	*- / 1.660*	*- / 3.435*	*- / 5.866*	*- / -*	*- / 5.866*	*- / 13.565*	*- / 5.540*	*- / -*	*- / -*	*- / -*	*- / 75.855*
Subtotal: GCS Block 30	*- / 56.820*	*- / 2.115*	*- / 3.781*	*- / 6.459*	*- / -*	*- / 6.459*	*- / 14.906*	*- / 6.146*	*- / -*	*- / -*	*- / -*	*- / 90.227*
Subtotal: Procurement, All Modification Items	*- / 56.820*	*- / 2.115*	*- / 3.781*	*- / 6.459*	*- / -*	*- / 6.459*	*- / 14.906*	*- / 6.146*	*- / -*	*- / -*	*- / -*	*- / 90.227*
Support *(All Modification Items)*												
Change Orders	- / 1.210	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.210
OTHER GOVT	- / 6.400	- / 0.512	- / 0.930	- / 2.570	- / -	- / 2.570	- / 10.360	- / 5.130	- / -	- / -	- / -	- / 25.902
Subtotal: Support	*- / 7.610*	*- / 0.512*	*- / 0.930*	*- / 2.570*	*- / -*	*- / 2.570*	*- / 10.360*	*- / 5.130*	*- / -*	*- / -*	*- / -*	*- / 27.112*
Installation												
Modification Item 1 of 1: GCS Block 30	19 / 25.370	12 / 11.240	16 / 6.183	11 / 12.183	- / -	11 / 12.183	12 / 5.994	12 / 0.000	4 / 0.000	- / -	- / -	86 / 60.970
Subtotal: Installation	*19 / 25.370*	*12 / 11.240*	*16 / 6.183*	*11 / 12.183*	*- / -*	*11 / 12.183*	*12 / 5.994*	*12 / -*	*4 / -*	*- / -*	*- / -*	*86 / 60.970*
Total												
Total Cost (Procurement + Support + Installation)	**89.800**	**13.867**	**10.894**	**21.212**	**0.000**	**21.212**	**31.260**	**11.276**	**0.000**	**0.000**	**0.000**	**178.309**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** PRDTB2 / MQ-9 Mods	**Modification Number / Title:** 9155 / GCS Blk 30
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 1: GCS Block 30

Manufacturer Information

Manufacturer Name: General Atomics-ASI	Manufacturer Location: Poway, CA
Administrative Leadtime *(in Months)*: 2	Production Leadtime *(in Months)*: 3

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Dec 2016	Dec 2017	Dec 2018	Dec 2019			
Delivery Dates	Mar 2017	Mar 2018	Mar 2019	Mar 2020			

Installation Information

Method of Implementation: Depot Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	19 / 25.370	12 / 0.000	4 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	35 / 25.370
FY 2017	- / -	0 / 11.240	12 / 0.000	5 / 0.000	- / -	5 / 0.000	- / -	- / -	- / -	- / -	- / -	17 / 11.240
FY 2018	- / -	- / -	0 / 6.183	6 / 0.000	- / -	6 / 0.000	6 / 0.000	- / -	- / -	- / -	- / -	12 / 6.183
FY 2019	- / -	- / -	- / -	0 / 12.183	- / -	0 / 12.183	6 / 5.994	6 / 0.000	- / -	- / -	- / -	12 / 18.177
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.000	4 / 0.000	- / -	- / -	10 / 0.000
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	19 / 25.370	12 / 11.240	16 / 6.183	11 / 12.183	- / -	11 / 12.183	12 / 5.994	12 / 0.000	4 / 0.000	- / -	- / -	86 / 60.970

Installation Schedule

		FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023					
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	19	3	3	3	3	3	3	4	6	2	3	3	3	3	3	3	3	3	3	3	3	3	1	-	-	-	-	-	-	0	86
Out	15	3	3	3	3	3	3	3	4	4	3	4	3	3	3	3	3	3	3	3	3	3	3	2	-	-	-	-	-	0	86

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** PRDTB2 / MQ-9 Mods	**Modification Number / Title:** 9159 / R&M enhancements
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	71.026	0.407	2.990	1.820	0.000	1.820	2.850	13.470	27.930	61.733	25.310	207.536
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	71.026	0.407	2.990	1.820	0.000	1.820	2.850	13.470	27.930	61.733	25.310	207.536
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**71.026**	**0.407**	**2.990**	**1.820**	**0.000**	**1.820**	**2.850**	**13.470**	**27.930**	**61.733**	**25.310**	**207.536**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	2.080	2.080
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The purpose of this effort is to enable reliability and maintainability (R&M) modification for the MQ-9 aircraft, sensor payloads, Ground Control Station (GCS), and Simulators to improve component mean time between failure and maintenance action rate requirements driving down system sustainabilty cost over time. Current examples include, but are not limited to, potentially, improved oil system sampling, new battery junction box, angle of attack probe, Ruggedized Aircraft Maintenance Test System (RAMTS), use of Retrofit facility space, and improved power inverter. This effort address R&M issues identified by the Joint Reliability and Maintainability Evaluation Team (JRMET) and CAT I deficiency reports.

Requirement for this modification is validated in the MQ-9 Capability Production Document dated 8 August 2006. The quantity of aircraft for each Blk 1 & Blk 5 modification varies depending on when the capability was cut into production. The Electrical Safety Improvement Program (ESIP) modification will be modifying the remaining 167 Blk 1 aircraft through FY18. ESIP Direct Drive Brushless Alternator (DDBA) costs are included in the R&M quantities as these are a current requirement to ensure the Reliability of the MQ-9 fleet. In FY18 and out, the R&M funding will be used to conduct other R&M modifications as required and quantities will vary based on funding and user requirements.

This program will revise quantities based on updated user requirements, Aircraft Availability, and as funding permits. Funding may be used to address Diminishing Manufacturing Sources (DMS) and Non-Recurring Engineering (NRE) issues.

Under this effort the contractor will provide for the manufacture, installation, and acceptance test of reliability and maintainability modification on MQ-9 aircraft and ground based systems.

Milestone/Development Status

The MQ-9 program will continue to develop, test, and recommend reliability, maintainability, availability, sustainability, and safety enhancements and solutions for implementation on the MQ-9 platform and ground based systems in an effort to improve aircraft and payload availability and reduce lifecycle costs.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** PRDTB2 / MQ-9 Mods	**Modification Number / Title:** 9159 / R&M enhancements
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: MQ-9	**Modification Type:** Reliability & Maintainability	**Related RDT&E PEs:** 0205219F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0205219F	- / 1,084.050	- / 151.373	- / 204.221	- / 194.746	- / -	- / 194.746	- / 185.807	- / 177.999	- / 169.807	- / -	- / -	- / 2,168.003
Procurement												
Modification Item 1 of 1: R&M Enhancements												
A Kits												
Recurring												
R&M Enhancements:INSTALL KITS Group A (Active)	170 / 6.650	- / 0.278	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	170 / 6.928
Subtotal: Recurring	*- / 6.650*	*- / 0.278*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 6.928*
B Kits												
Recurring												
R&M Enhancements:EQUIPMENT Group B (Active)	170 / 59.957	- / -	- / 2.570	- / 1.360	- / -	- / 1.360	- / 1.910	- / 6.380	- / 6.600	- / 6.683	- / 15.660	170 / 101.120
Subtotal: Recurring	*- / 59.957*	*- / -*	*- / 2.570*	*- / 1.360*	*- / -*	*- / 1.360*	*- / 1.910*	*- / 6.380*	*- / 6.600*	*- / 6.683*	*- / 15.660*	*- / 101.120*
Subtotal: R&M Enhancements	*- / 66.607*	*- / 0.278*	*- / 2.570*	*- / 1.360*	*- / -*	*- / 1.360*	*- / 1.910*	*- / 6.380*	*- / 6.600*	*- / 6.683*	*- / 15.660*	*- / 108.048*
Subtotal: Procurement, All Modification Items	*- / 66.607*	*- / 0.278*	*- / 2.570*	*- / 1.360*	*- / -*	*- / 1.360*	*- / 1.910*	*- / 6.380*	*- / 6.600*	*- / 6.683*	*- / 15.660*	*- / 108.048*
Support *(All Modification Items)*												
OTHER GOVT	- / 4.419	- / 0.129	- / 0.420	- / 0.460	- / -	- / 0.460	- / 0.940	- / 7.090	- / 21.330	- / 55.050	- / 9.650	- / 99.488
Subtotal: Support	*- / 4.419*	*- / 0.129*	*- / 0.420*	*- / 0.460*	*- / -*	*- / 0.460*	*- / 0.940*	*- / 7.090*	*- / 21.330*	*- / 55.050*	*- / 9.650*	*- / 99.488*
Installation												
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*
Total												
Total Cost (Procurement + Support + Installation)	**71.026**	**0.407**	**2.990**	**1.820**	**0.000**	**1.820**	**2.850**	**13.470**	**27.930**	**61.733**	**25.310**	**207.536**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** PRDTB2 / MQ-9 Mods	**Modification Number / Title:** 9159 / R&M enhancements

ID Code (A=Service Ready, B=Not Service Ready) : B | **MDAP/MAIS Code:**

Modification Item 1 of 1: R&M Enhancements

Manufacturer Information

Manufacturer Name: General Atomics ASI | Manufacturer Location: Poway CA

Administrative Leadtime *(in Months)*: 2 | Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Dec 2016	Dec 2017	Dec 2018	Dec 2019	Dec 2020	Dec 2021	
Delivery Dates	Dec 2017	Dec 2018	Dec 2019	Dec 2020	Dec 2021	Dec 2022	

Installation Information

Method of Implementation (Organic): Org/Intermediate | **Installation Quantity:** 170

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** PRDTB2 / MQ-9 Mods	**Modification Number / Title:** 9164 / Extended Range MQ-9
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	142.689	33.825	54.686	54.836	0.000	54.836	47.156	74.220	63.083	16.157	0.000	486.652
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	142.689	33.825	54.686	54.836	0.000	54.836	47.156	74.220	63.083	16.157	0.000	486.652
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**142.689**	**33.825**	**54.686**	**54.836**	**0.000**	**54.836**	**47.156**	**74.220**	**63.083**	**16.157**	**0.000**	**486.652**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This program adds Extended Range (ER) capability to the MQ-9 aircraft. Candidate aircraft modifications include, but are not limited to, external fuel tanks with shipping containers, 4-bladed propeller with shipping containers, engine modifications, fuel system modifications, use of Retrofit facility space, and software modifications. Current plan is to modify all MQ-9 aircraft to the ER configuration. This program will revise quantities based on updated user requirements and as funding permits. Funding may be used to address Diminishing Manufacturing Sources (DMS) and Non-Recurring Engineering (NRE) issues.

The ER modification will be modifying 165 Block 1 aircraft and 136 Block 5 aircraft per the users identified requirements. OCO funded modifications will have the installations paid for at contract award, but installations will not occur until kits begin to deliver. All other program office installations will be paid for in the year the installations actually occur.

Requirement for this modification was validated by the Chairman of the Joint Chiefs of Staff in conjunction with the Warfighter Senior Integration Group in response to an urgent operational need.

Milestone/Development Status

The Air Force delivered 44 modified Block 1 ER aircraft by July 2016 to meet a Joint Urgent Operational Need (JUON). The remaining Block 1 aircraft are programmed to be modified to the ER configuration. All Block 5 aircraft are programmed to be modified to the ER configuration.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** PRDTB2 / MQ-9 Mods	**Modification Number / Title:** 9164 / Extended Range MQ-9
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: MQ-9	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0205219F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0205219F	- / 1,084.050	- / 151.373	- / 204.221	- / 194.746	- / -	- / 194.746	- / 185.807	- / 177.999	- / 169.807	- / -	- / -	- / 2,168.003
Procurement												
Modification Item 1 of 1: Extended Range MQ-9												
A Kits												
Recurring												
Extended Range MQ-9:INSTALL KITS Group A (Active)	108 / 12.028	22 / 2.207	58 / 4.918	43 / 4.252	- / -	43 / 4.252	26 / 2.150	36 / 3.109	10 / -0.463	- / -1.380	- / -	303 / 26.821
Subtotal: Recurring	*- / 12.028*	*- / 2.207*	*- / 4.918*	*- / 4.252*	*- / -*	*- / 4.252*	*- / 2.150*	*- / 3.109*	*- / -0.463*	*- / -1.380*	*- / -*	*- / 26.821*
B Kits												
Recurring												
Extended Range MQ-9:EQUIPMENT Group B (Active)	108 / 108.252	22 / 28.189	58 / 45.198	43 / 38.164	- / -	43 / 38.164	26 / 19.376	36 / 27.881	10 / -5.964	- / -12.283	- / -	303 / 248.813
Subtotal: Recurring	*- / 108.252*	*- / 28.189*	*- / 45.198*	*- / 38.164*	*- / -*	*- / 38.164*	*- / 19.376*	*- / 27.881*	*- / -5.964*	*- / -12.283*	*- / -*	*- / 248.813*
Subtotal: Extended Range MQ-9	*- / 120.280*	*- / 30.396*	*- / 50.116*	*- / 42.416*	*- / -*	*- / 42.416*	*- / 21.526*	*- / 30.990*	*- / -6.427*	*- / -13.663*	*- / -*	*- / 275.634*
Subtotal: Procurement, All Modification Items	*- / 120.280*	*- / 30.396*	*- / 50.116*	*- / 42.416*	*- / -*	*- / 42.416*	*- / 21.526*	*- / 30.990*	*- / -6.427*	*- / -13.663*	*- / -*	*- / 275.634*
Support *(All Modification Items)*												
OTHER GOVT	- / 6.899	- / 3.429	- / 4.570	- / 6.650	- / -	- / 6.650	- / 15.620	- / 34.060	- / 44.950	- / 13.800	- / -	- / 129.978
Subtotal: Support	*- / 6.899*	*- / 3.429*	*- / 4.570*	*- / 6.650*	*- / -*	*- / 6.650*	*- / 15.620*	*- / 34.060*	*- / 44.950*	*- / 13.800*	*- / -*	*- / 129.978*
Installation												
Modification Item 1 of 1: Extended Range MQ-9	49 / 15.510	- / -	32 / 0.000	60 / 5.770	- / -	60 / 5.770	67 / 10.010	46 / 9.170	36 / 24.560	13 / 16.020	- / -	303 / 81.040
Subtotal: Installation	*49 / 15.510*	*- / -*	*32 / -*	*60 / 5.770*	*- / -*	*60 / 5.770*	*67 / 10.010*	*46 / 9.170*	*36 / 24.560*	*13 / 16.020*	*- / -*	*303 / 81.040*
Total												
Total Cost (Procurement + Support + Installation)	**142.689**	**33.825**	**54.686**	**54.836**	**0.000**	**54.836**	**47.156**	**74.220**	**63.083**	**16.157**	**0.000**	**486.652**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** PRDTB2 / MQ-9 Mods	**Modification Number / Title:** 9164 / Extended Range MQ-9

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 1: Extended Range MQ-9

Manufacturer Information

Manufacturer Name: General Atomics - ASI

Manufacturer Location: Poway, CA

Administrative Leadtime *(in Months)*: 5

Production Leadtime *(in Months)*: 13

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Mar 2017	Mar 2018	Mar 2019	Mar 2020	Mar 2021	Mar 2022	
Delivery Dates	Apr 2018	Apr 2019	Apr 2020	Apr 2021	Apr 2022	Apr 2023	

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	49 / 15.510	- / -	32 / 0.000	27 / 0.000	- / -	27 / 0.000	- / -	- / -	- / -	- / -	- / -	108 / 15.510
FY 2017	- / -	- / -	- / -	22 / 0.000	- / -	22 / 0.000	- / -	- / -	- / -	- / -	- / -	22 / 0.000
FY 2018	- / -	- / -	- / -	11 / 0.000	- / -	11 / 0.000	47 / 0.000	- / -	- / -	- / -	- / -	58 / 0.000
FY 2019	- / -	- / -	- / -	0 / 5.770	- / -	0 / 5.770	20 / 0.000	23 / 0.000	- / -	- / -	- / -	43 / 5.770
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	0 / 10.010	23 / 0.000	3 / 0.000	- / -	- / -	26 / 10.010
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 9.170	33 / 24.560	3 / 0.000	- / -	36 / 33.730
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 16.020	- / -	10 / 16.020
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	49 / 15.510	- / -	32 / 0.000	60 / 5.770	- / -	60 / 5.770	67 / 10.010	46 / 9.170	36 / 24.560	13 / 16.020	- / -	303 / 81.040

Installation Schedule

		FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023					
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	49	-	-	-	-	-	-	16	16	9	15	18	18	18	18	16	15	14	14	9	9	9	9	9	9	7	6	-	-	0	303
Out	49	-	-	-	-	-	-	16	16	9	9	15	18	18	18	18	16	15	14	14	9	9	9	9	9	9	4	-	-	0	303

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** PRDTB2 / MQ-9 Mods	**Modification Number / Title:** 9167 / MQ-9 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	129.338	188.271	15.826	0.000	15.826	244.948	46.840	59.950	61.450	539.090	1,285.713
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	129.338	188.271	15.826	0.000	15.826	244.948	46.840	59.950	61.450	539.090	1,285.713
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**129.338**	**188.271**	**15.826**	**0.000**	**15.826**	**244.948**	**46.840**	**59.950**	**61.450**	**539.090**	**1,285.713**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The MQ-9 Reaper Upgrade Program fields new capabilities in the MQ-9 fleet. This program integrates the approved MQ-9 Upgrade Agile Acquisition Strategy, the associated technology maturation efforts and fielding and sustainment of capabilities associated with Operational Flight Profile releases 2408 through 2411.

MQ-9 Unmanned Aircraft System retrofits those capabilities into the MQ-9 aircraft and the Ground Control Stations. Although the content of the OFP releases may change in response to changing mission requirements, at this time releases 2409 and 2411 include, but are not limited to, adding high definition electro-optical/infra-red imagery with the DAS-4 sensor on the MQ-9 Block 5 fuselage, implementing VORTEX Phase II, replacing the GPS with a differential GPS, implementing an Autonomous Systems upgrade, upgrading the datalinks to use the new Bandwidth Efficient Common Data Link (BE-CDL), and enhancing the Joint Direct Attack Munition (JDAM) Targeting capability. Due to the Agile Acquisition process, retrofit priorities will be determined and executed by TME maturity, Aircraft availability, and operational needs.

Requirement for this modification is validated in the MQ-9 Capability Production Document dated 8 August 2006.

This program will revise quantities based on updated user requirements and as funding permits. Funding may be used to address Diminishing Manufacturing Sources (DMS) and Non-Recurring Engineering (NRE) issues.

There are multiple capabilities (within each element of the P-3A) being added to the aircraft thus the quantities are overstated. Each element will be installed based upon fleet requirements to get to a baseline for that specific capability release.

The quantity of aircraft for each modification varies depending on when the capability was cut into production. For the DAS-4 retrofit, the program will modify 167 Block 1 and the remaining 68 Block 5 aircraft delivered without DAS-4. For the software release retrofits, the program will modify Block 5 aircraft as required.

Various components of the releases include, but are not limited to, the following: DAS-4 ,Technology
Insertion, VORTEX Ph II, BE-CDL, AH Cheeks, Differential Global Positioning System {GPS), Auto Takeoff and Landing, JDAM Targeting, GCS Block 50 Tech Refresh, Flight Payload Separation.
In 2017, program 9167/MQ-9 Upgrade {Capability Improvement) was a new start.

FY17 OCO includes $68.7 for 45 DAS-4 upgrades.
FY18 OCO includes $56.4M for 26 DAS-4 upgrades.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** PRDTB2 / MQ-9 Mods	**Modification Number / Title:** 9167 / MQ-9 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Milestone/Development Status

Release 3 Contract award is currently scheduled for award in 1Q 2019.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	P-1 Line Item Number / Title: PRDTB2 / MQ-9 Mods	Modification Number / Title: 9167 / MQ-9 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:	
Models of Systems Affected: MQ-9	Modification Type: Capability Improvement	Related RDT&E PEs: 0205219F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0205219F	- / -	- / 151.373	- / 204.221	- / 194.746	- / -	- / 194.746	- / 185.807	- / 177.999	- / 169.807	- / -	- / -	- / 1,083.953
Procurement												
Modification Item 1 of 2: DAS-4 EO/IR Sensor												
A Kits												
Recurring												
DAS-4 EO/IR Sensor:INSTALL KITS Group A (Active)	- / -	65 / 12.933	93 / 18.827	6 / 1.583	- / -	6 / 1.583	111 / 23.923	4 / 0.099	4 / 1.025	5 / 1.352	38 / 7.454	326 / 67.196
Subtotal: Recurring	*- / -*	*- / 12.933*	*- / 18.827*	*- / 1.583*	*- / -*	*- / 1.583*	*- / 23.923*	*- / 0.099*	*- / 1.025*	*- / 1.352*	*- / 7.454*	*- / 67.196*
B Kits												
Recurring												
DAS-4 EO/IR Sensor:EQUIPMENT Group B (Active)	- / -	65 / 112.155	93 / 169.444	6 / 14.243	- / -	6 / 14.243	111 / 215.310	4 / 8.931	28 / 9.228	5 / 12.170	38 / 67.092	350 / 608.573
Subtotal: Recurring	*- / -*	*- / 112.155*	*- / 169.444*	*- / 14.243*	*- / -*	*- / 14.243*	*- / 215.310*	*- / 8.931*	*- / 9.228*	*- / 12.170*	*- / 67.092*	*- / 608.573*
Subtotal: DAS-4 EO/IR Sensor	*- / -*	*- / 125.088*	*- / 188.271*	*- / 15.826*	*- / -*	*- / 15.826*	*- / 239.233*	*- / 9.030*	*- / 10.253*	*- / 13.522*	*- / 74.546*	*- / 675.769*
Modification Item 2 of 2: MQ-9 Upgrade												
A Kits												
Recurring												
MQ-9 Upgrade:INSTALL KITS Group A (Active)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	14 / 2.165	48 / 6.883	48 / 5.567	48 / 2.519	158 / 17.134
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 2.165*	*- / 6.883*	*- / 5.567*	*- / 2.519*	*- / 17.134*
B Kits												
Recurring												
MQ-9 Upgrade:EQUIPMENT Group B (Active)	- / -	- / -	- / -	- / -	- / -	- / -	14 / 5.715	48 / 26.595	48 / 41.714	48 / 33.492	48 / 438.225	206 / 545.741
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 5.715*	*- / 26.595*	*- / 41.714*	*- / 33.492*	*- / 438.225*	*- / 545.741*
Subtotal: MQ-9 Upgrade	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 5.715*	*- / 28.760*	*- / 48.597*	*- / 39.059*	*- / 440.744*	*- / 562.875*
Subtotal: Procurement, All Modification Items	*- / -*	*- / 125.088*	*- / 188.271*	*- / 15.826*	*- / -*	*- / 15.826*	*- / 244.948*	*- / 37.790*	*- / 58.850*	*- / 52.581*	*- / 515.290*	*- / 1,238.644*
Support *(All Modification Items)*												
OTHER GOVT	- / -	- / 4.250	- / -	- / -	- / -	- / -	- / -	- / 1.000	- / 1.100	- / 1.300	- / 3.120	- / 10.770
Subtotal: Support	*- / -*	*- / 4.250*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 1.000*	*- / 1.100*	*- / 1.300*	*- / 3.120*	*- / 10.770*
Installation												
Modification Item 2 of 2: MQ-9 Upgrade	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 8.050	13 / 0.000	48 / 7.569	96 / 20.680	158 / 36.299
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*1 / 8.050*	*13 / -*	*48 / 7.569*	*96 / 20.680*	*158 / 36.299*
Total												

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** PRDTB2 / MQ-9 Mods	**Modification Number / Title:** 9167 / MQ-9 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: MQ-9	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0205219F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Total Cost (Procurement + Support + Installation)	-	129.338	188.271	15.826	0.000	15.826	244.948	46.840	59.950	61.450	539.090	1,285.713

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** PRDTB2 / MQ-9 Mods	**Modification Number / Title:** 9167 / MQ-9 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 2: DAS-4 EO/IR Sensor

Manufacturer Information

Manufacturer Name: Raytheon	Manufacturer Location: Poway, CA
Administrative Leadtime *(in Months)*: 5	Production Leadtime *(in Months)*: 10

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Apr 2018	Jan 2019	Jan 2020	Feb 2021	Feb 2022	Feb 2023	Feb 2024
Delivery Dates	Feb 2019	Nov 2019	Nov 2020	Dec 2021	Dec 2022	Dec 2023	Dec 2024

Installation Information

Method of Implementation (Organic): Org/Intermediate	**Installation Quantity:** 326

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** PRDTB2 / MQ-9 Mods	**Modification Number / Title:** 9167 / MQ-9 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 2 of 2: MQ-9 Upgrade

Manufacturer Information

Manufacturer Name: General Atomics, ASI	Manufacturer Location: Poway, CA
Administrative Leadtime *(in Months)*: 2	Production Leadtime *(in Months)*: 9

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Oct 2017	Jan 2018	Jan 2019	Dec 2019	Dec 2020	Jan 2022	Jan 2023
Delivery Dates	Jul 2018	Oct 2018	Oct 2019	Sep 2020	Sep 2021	Oct 2022	Oct 2023

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 8.050	13 / 0.000	- / -	- / -	14 / 8.050
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	48 / 0.000	- / -	48 / 0.000
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 7.569	48 / 0.000	48 / 7.569
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	48 / 20.680	48 / 20.680
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 8.050	13 / 0.000	48 / 7.569	96 / 20.680	158 / 36.299

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	3	4	4	12	12	12	12	96	158
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	3	4	4	12	12	12	12	96	158

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** PRDTB2 / MQ-9 Mods	**Modification Number / Title:** 9168 / Dismount Radar
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	-	-	-	-	-	45.000	45.000	57.000	10.000	0.000	157.000
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	-	-	-	-	45.000	45.000	57.000	10.000	0.000	157.000
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**-**	**-**	**-**	**-**	**45.000**	**45.000**	**57.000**	**10.000**	**0.000**	**157.000**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This program, P-3A Mod 9168, Dismount Radar, is a new start.
Dismount Radar (DR) project will award contract to retrofit 80 aircraft with a Moving Target Indicator (MDI) capability on medium altitude air vehicles for improved dismount and moving target detection, identification, tracking, and classification.

This program is an emerging requirement quantities, unit costs, and schedules will vary based on user requirements and as funding permits. Funding may be used to address Diminishing Manufacturing Sources (DMS), retrofit facility costs, and Non-Recurring Engineering(NRE) issues.

Milestone/Development Status

Development will start in FY19 for integration work with a to be determined dismount detection capability for the MQ-9.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** PRDTB2 / MQ-9 Mods	**Modification Number / Title:** 9168 / Dismount Radar
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: MQ-9	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0205219F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Dismount Radar (DR)												
B Kits												
Recurring												
Dismount Radar (DR):EQUIPMENT Group B (Active)	- / -	- / -	- / -	- / -	- / -	- / -	25 / 40.500	24 / 40.500	27 / 51.300	4 / 9.000	- / -	80 / 141.300
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 40.500*	*- / 40.500*	*- / 51.300*	*- / 9.000*	*- / -*	*- / 141.300*
Subtotal: Dismount Radar (DR)	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 40.500*	*- / 40.500*	*- / 51.300*	*- / 9.000*	*- / -*	*- / 141.300*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 40.500*	*- / 40.500*	*- / 51.300*	*- / 9.000*	*- / -*	*- / 141.300*
Installation												
Modification Item 1 of 1: Dismount Radar (DR)	- / -	- / -	- / -	- / -	- / -	- / -	0 / 4.500	0 / 4.500	25 / 5.700	24 / 1.000	31 / 0.000	80 / 15.700
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 4.500*	*- / 4.500*	*25 / 5.700*	*24 / 1.000*	*31 / -*	*80 / 15.700*
Total												
Total Cost (Procurement + Support + Installation)	**-**	**-**	**-**	**-**	**-**	**-**	**45.000**	**45.000**	**57.000**	**10.000**	**0.000**	**157.000**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** PRDTB2 / MQ-9 Mods	**Modification Number / Title:** 9168 / Dismount Radar
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Modification Item 1 of 1: Dismount Radar (DR)

Manufacturer Information

Manufacturer Name: GA-ASI	Manufacturer Location: Poway
Administrative Leadtime *(in Months)*: 0	Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates				Jun 2021	Jun 2022	Jun 2023	Jun 2024
Delivery Dates				Jun 2022	Jun 2023	Jun 2024	Jun 2025

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	0 / 4.500	- / -	25 / 0.000	- / -	- / -	25 / 4.500
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 4.500	- / -	24 / 0.000	- / -	24 / 4.500
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 5.700	- / -	27 / 0.000	27 / 5.700
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 1.000	4 / 0.000	4 / 1.000
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	0 / 4.500	0 / 4.500	25 / 5.700	24 / 1.000	31 / 0.000	80 / 15.700

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	0	0	0	0	6	6	6	7	6	6	6	6	31	80
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	0	0	0	0	6	6	6	7	6	6	6	6	31	80

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** PRDTB2 / MQ-9 Mods	**Modification Number / Title:** 1 / MQ-9 Low Cost Mods
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	13.020	0.000	2.000	2.000	0.000	2.000	0.000	2.000	2.000	2.000	4.000	27.020
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	13.020	0.000	2.000	2.000	0.000	2.000	0.000	2.000	2.000	2.000	4.000	27.020
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**13.020**	**0.000**	**2.000**	**2.000**	**0.000**	**2.000**	**0.000**	**2.000**	**2.000**	**2.000**	**4.000**	**27.020**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The purpose of this effort is to enable low cost modifications to be executed in a timely manner. This program will revise quantities based on updated user requirements and as funding permits. Funding may be used to address Diminishing Manufacturing Sources (DMS) and Non-Recurring Engineering (NRE) issues.

Note: Under this effort the contractor shall provide for the manufacture, installation, and acceptance test of low cost modifications onto MQ-9 aircraft and ground based systems.

Milestone/Development Status

On-going

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** PRDTB2 / MQ-9 Mods	**Modification Number / Title:** 1 / MQ-9 Low Cost Mods
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: MQ-9	**Modification Type:** Reliability & Maintainability	**Related RDT&E PEs:** 0205219F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
0205219F	- / 614.904	- / 151.373	- / 204.221	- / 194.746	- / -	- / 194.746	- / 185.807	- / 177.999	- / 169.807	- / -	- / -	- / 1,698.857
Procurement												
Modification Item 1 of 1: MQ-9 Low Cost Mods												
A Kits												
Recurring												
MQ-9 Low Cost Mods:INSTALL KITS Group A (Active)	0 / 0.734	- / -	- / -	- / -	- / -	- / -	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	0 / 0.734
Subtotal: Recurring	*- / 0.734*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.000*	*- / 0.000*	*- / 0.000*	*- / -*	*- / -*	*- / 0.734*
B Kits												
Recurring												
MQ-9 Low Cost Mods:EQUIPMENT Group B (Active)	0 / 12.286	- / -	0 / 2.000	0 / 2.000	- / -	0 / 2.000	- / -	0 / 2.000	0 / 2.000	0 / 2.000	0 / 4.000	0 / 26.286
Subtotal: Recurring	*- / 12.286*	*- / -*	*- / 2.000*	*- / 2.000*	*- / -*	*- / 2.000*	*- / -*	*- / 2.000*	*- / 2.000*	*- / 2.000*	*- / 4.000*	*- / 26.286*
Subtotal: MQ-9 Low Cost Mods	*- / 13.020*	*- / -*	*- / 2.000*	*- / 2.000*	*- / -*	*- / 2.000*	*- / 0.000*	*- / 2.000*	*- / 2.000*	*- / 2.000*	*- / 4.000*	*- / 27.020*
Subtotal: Procurement, All Modification Items	*- / 13.020*	*- / -*	*- / 2.000*	*- / 2.000*	*- / -*	*- / 2.000*	*- / 0.000*	*- / 2.000*	*- / 2.000*	*- / 2.000*	*- / 4.000*	*- / 27.020*
Installation												
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*
Total												
Total Cost (Procurement + Support + Installation)	**13.020**	**0.000**	**2.000**	**2.000**	**0.000**	**2.000**	**0.000**	**2.000**	**2.000**	**2.000**	**4.000**	**27.020**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** PRDTB2 / MQ-9 Mods	**Modification Number / Title:** 1 / MQ-9 Low Cost Mods

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Modification Item 1 of 1: MQ-9 Low Cost Mods

Manufacturer Information

Manufacturer Name: General Atomics - ASI

Manufacturer Location: Poway, CA

Administrative Leadtime *(in Months)*: 1

Production Leadtime *(in Months)*: 1

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation (Organic): Org/Intermediate

Installation Quantity: 0

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** PRDTB3 / MQ-9 UAS Payloads

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	22.905	0.000	0.000	16.000	16.000	19.148	182.065	234.721	0.000	-	474.839
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	22.905	0.000	0.000	16.000	16.000	19.148	182.065	234.721	0.000	-	474.839
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**22.905**	**0.000**	**0.000**	**16.000**	**16.000**	**19.148**	**182.065**	**234.721**	**0.000**	**-**	**474.839**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Gorgon Stare system is a podded airborne sensor suite that provides city-sized wide area airborne surveillance and is integrated on specially-modified MQ-9 Reaper Remotely Piloted Aircraft (RPA). The Air Force Requirements Oversight Council (AFROC) approved Air Combat Command's recommendation to transition Gorgon Stare from a Quick Reaction Capability (QRC) to an Air Force Enduring Capability in November 2014. Gorgon Stare's requirements are documented in the Gorgon Stare Wide Area Airborne Sensor Capabilities Production Document (draft). The acquisition strategy for this Air Force podded sensor suite solution is sustainment of the currently fielded capabilities with any upgrades implemented via validated -1067s or Urgent Operational Needs.

As of second quarter FY 2018, the Air Force inventory for Gorgon stare includes the following: nine (9) Gorgon Stare pod sets, five (5) Gorgon Stare Mission Controllers (GSMCs), three (3) Gorgon Stare Archive Managers (GSAMs), nine (9) specially-modified MQ-9 Reaper RPAs, and one System Integration Laboratory (SIL).

FY 2019 includes $16M of Overseas Contingency Operations (OCO) funding.

The Gorgon Stare program is managed by the 645th Aeronautical Systems Group. Funding for this exhibit is contained in PE 0305206F.

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** PRDTB3 / MQ-9 UAS Payloads

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-3a	9169 / Gorgon Stare (Capability Improvement)		A		- / -	- / 22.905	- / 0.000	- / 0.000	- / 16.000	- / 16.000
P-40	**Total Gross/Weapon System Cost**				**- / -**	**- / 22.905**	**- / 0.000**	**- / 0.000**	**- / 16.000**	**- / 16.000**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-3a	9169 / Gorgon Stare (Capability Improvement)		A		- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / 38.905
P-40	**Total Gross/Weapon System Cost**				**- / 19.148**	**- / 182.065**	**- / 234.721**	**- / 0.000**	**- / -**	**- / 474.839**

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** PRDTB3 / MQ-9 UAS Payloads	**Modification Number / Title:** 9169 / Gorgon Stare
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	22.905	0.000	0.000	16.000	16.000	0.000	0.000	0.000	0.000	-	38.905
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	22.905	0.000	0.000	16.000	16.000	0.000	0.000	0.000	0.000	-	38.905
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**22.905**	**0.000**	**0.000**	**16.000**	**16.000**	**0.000**	**0.000**	**0.000**	**0.000**	**-**	**38.905**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	0.000	0.216	0.000	7.500	7.500	0.000	0.000	0.000	0.000	-	7.716
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Gorgon Stare system is a podded airborne sensor suite that provides city-sized wide area airborne surveillance and is integrated on specially-modified MQ-9 Reaper Remotely Piloted Aircraft (RPA). The Air Force Requirements Oversight Council (AFROC) approved Air Combat Command's recommendation to transition Gorgon Stare from a Quick Reaction Capability (QRC) to an Air Force Enduring Capability in November 2014. Gorgon Stare's requirements are documented in the Gorgon Stare Wide Area Airborne Sensor Capabilities Production Document (draft). The acquisition strategy for this Air Force podded sensor suite solution is sustainment of the currently fielded capabilities with any upgrades implemented via validated -1067s or Urgent Operational Needs.

As of second quarter FY 2018, the Air Force inventory for Gorgon stare includes the following: nine (9) Gorgon Stare pod sets, five (5) Gorgon Stare Mission Controllers (GSMCs), three (3) Gorgon Stare Archive Managers (GSAMs), nine (9) specially-modified MQ-9 Reaper RPAs, and one (1) System Integration Laboratory (SIL).

FY 2017 includes $20M Congressional Add and $2.905M Below Threshold Reprogram funding for the purchase of a tenth Gorgon Stare pod set. This pod set will be used as a spare, and no additional MQ-9 RPAs are being specially-modified to host Gorgon Stare. Therefore, a Group A kit is not required for the tenth pod set at this time.

FY 2019 Overseas Contingency Operations (OCO) funds identified in the Group B kit prices include $11M for a pod set processor upgrade and $5M for a data storage unit pod set upgrade. These upgrades will modify all nine (9) operational Gorgon Stare pod sets and the SIL to address end-of-life issues and improve capability. Install costs for these upgrades are minimal since they will be installed by on-site contractor logistics support personnel. There are no Group A kits associated with the data processor and data storage unit pod set upgrades.

Milestone/Development Status

Development of processor and data storage unit upgrades to be completed in FY 2018.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** PRDTB3 / MQ-9 UAS Payloads	**Modification Number / Title:** 9169 / Gorgon Stare
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: MQ-9	**Modification Type:** Capability Improvement	**Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: Gorgon Stare												
B Kits												
Recurring												
Gorgon Stare:EQUIPMENT Group B (Active)	- / -	1 / 22.905	- / -	- / -	10 / 16.000	10 / 16.000	- / -	- / -	- / -	- / -	- / -	11 / 38.905
Subtotal: Recurring	*- / -*	*- / 22.905*	*- / -*	*- / -*	*- / 16.000*	*- / 16.000*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 38.905*
Subtotal: Gorgon Stare	*- / -*	*- / 22.905*	*- / -*	*- / -*	*- / 16.000*	*- / 16.000*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 38.905*
Subtotal: Procurement, All Modification Items	*- / -*	*- / 22.905*	*- / -*	*- / -*	*- / 16.000*	*- / 16.000*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 38.905*
Support *(All Modification Items)*												
GROUP B: TOTAL NONRECURRING	- / -	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 0.000
Subtotal: Support	*- / -*	*- / 0.000*	*- / 0.000*	*- / 0.000*	*- / 0.000*	*- / 0.000*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.000*
Installation												
Modification Item 1 of 1: Gorgon Stare	- / -	- / -	- / -	- / -	- / -	- / -	11 / 0.000	- / -	- / -	- / -	- / -	11 / 0.000
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*11 / 0.000*	*- / -*	*- / -*	*- / -*	*- / -*	*11 / 0.000*
Total												
Total Cost (Procurement + Support + Installation)	**-**	**22.905**	**0.000**	**0.000**	**16.000**	**16.000**	**0.000**	**0.000**	**0.000**	**0.000**	**-**	**38.905**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** PRDTB3 / MQ-9 UAS Payloads	**Modification Number / Title:** 9169 / Gorgon Stare
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 1 of 1: Gorgon Stare

Manufacturer Information

Manufacturer Name: SNC	Manufacturer Location: Sparks, NV
Administrative Leadtime *(in Months)*: 5	Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Jan 2018		Mar 2019				
Delivery Dates	Jan 2020		Mar 2020				

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.000	- / -	- / -	- / -	- / -	1 / 0.000
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	10 / 0.000	- / -	- / -	- / -	- / -	10 / 0.000
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	11 / 0.000	- / -	- / -	- / -	- / -	11 / 0.000

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	-	-	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	11
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	11

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0401318F

Line Item MDAP/MAIS Code: 212

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	198.947	63.395	60.990	60.416	0.000	60.416	61.548	63.933	121.147	66.661	518.104	1,215.141
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	198.947	63.395	60.990	60.416	0.000	60.416	61.548	63.933	121.147	66.661	518.104	1,215.141
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**198.947**	**63.395**	**60.990**	**60.416**	**0.000**	**60.416**	**61.548**	**63.933**	**121.147**	**66.661**	**518.104**	**1,215.141**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The CV-22 is the Air Force Special Operations Forces (SOF) variant of the joint multi-mission V-22 tilt rotor aircraft. The CV-22 provides long-range, high-speed infiltration, exfiltration, and resupply to Special Forces teams in hostile, denied, and politically sensitive areas. The Navy is the lead service for the Joint V-22 program. The Joint Program Manager is responsible for managing all variants of the V-22. Department of the Navy (DoN) funds the development of the MV-22 and CMV-22. The Air Force funds the service common portion of the CV-22 while United States Special Operations Command (USSOCOM) funds the development and procurement of SOF peculiar systems. The design service life for the aircraft is 10,000 flying hours over 30 years. As of 18 January 2018, the CV-22 fleet has accumulated approximately 84,385 flying hours.

Funding for this exhibit contained in PE 0401318F.

The primary modification budgeted in FY19 is the Block C/20 Upgrade.

Funding may be used to address Diminishing Manufacturing Source (DMS) and component obsolescence issues.

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods

ID Code (A=Service Ready, B=Not Service Ready): A | **Program Elements for Code B Items:** N/A | **Other Related Program Elements:** 0401318F

Line Item MDAP/MAIS Code: 212

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-3a	8790 / Block 20 Upgrade (Capability Improvement)		A		- / 183.539	- / 61.396	- / 58.991	- / 58.417	- / 0.000	- / 58.417
P-3a	1 / Low Cost Modifications (Other)		A		- / 15.408	- / 1.999	- / 1.999	- / 1.999	- / 0.000	- / 1.999
P-40	**Total Gross/Weapon System Cost**				**- / 198.947**	**- / 63.395**	**- / 60.990**	**- / 60.416**	**- / 0.000**	**- / 60.416**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-3a	8790 / Block 20 Upgrade (Capability Improvement)		A		- / 59.549	- / 61.934	- / 119.148	- / 64.662	- / 508.109	- / 1,175.745
P-3a	1 / Low Cost Modifications (Other)		A		- / 1.999	- / 1.999	- / 1.999	- / 1.999	- / 9.995	- / 39.396
P-40	**Total Gross/Weapon System Cost**				**- / 61.548**	**- / 63.933**	**- / 121.147**	**- / 66.661**	**- / 518.104**	**- / 1,215.141**

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	183.539	61.396	58.991	58.417	0.000	58.417	59.549	61.934	119.148	64.662	508.109	1,175.745
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	183.539	61.396	58.991	58.417	0.000	58.417	59.549	61.934	119.148	64.662	508.109	1,175.745
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**183.539**	**61.396**	**58.991**	**58.417**	**0.000**	**58.417**	**59.549**	**61.934**	**119.148**	**64.662**	**508.109**	**1,175.745**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	0.882	0.241	-	-	-	-	1.983	6.346	-	-	9.452
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This modification funds the retrofit of fielded CV-22 aircraft, flight training systems, and systems integration laboratories to the Block C/20 configuration. This modification encompasses numerous engineering change proposals (ECP) that have, or will be placed on contract to address a variety of CV-22 weapon system requirements. This modification implements production kits and other equipment resulting from related RDT&E projects in the CV-22 program, including Block C/20, enhanced self-deployment capabilities, and nacelle improvements.

The Block C/20 modification program improves readiness, operational safety, suitability, and effectiveness, corrects deficiencies identified during operational testing and/or field operations, improves aircraft reliability/maintainability, enhances the aircraft's self-deployment capability, enables unrestricted access to worldwide airspace, and enhances aircraft survivability and the effectiveness of aircraft defensive avionics systems. Whenever possible, ECPs/kits are installed in bundles to minimize aircraft down time and maximize efficiency. Some ECPs/kits are being incorporated on aircraft as they progress through the production line. Individual P-3As indicate which modifications are implemented at the depot level, and the installation schedules reflect only these depot level installs.

Funds also modify and retrofit systems experiencing obsolescing and/or diminishing manufacturing source (DMS) issues, aircraft support equipment upgrades, training devices, flight simulators, flight test support, and software. Funding for DMS, flight test support, and software is included in the nonrecurring engineering cost category.

Milestone/Development Status

CV-22 program RDT&E funding in PE 0401318F provides for development and testing activities associated with the Block C/20 modification, Enhanced Self-Deployment, and Nacelle Improvements.

Block 20: Capabilities include improved long-range communications, situational awareness capabilities, and aircraft software upgrades. These improvements include operational requirements specified in the V-22 Block C/20 Capabilities Production Document (CPD).

Enhanced Self-Deployment: Capabilities include improved ice protection, engine performance, navigation, communications, and battle space awareness/networking capabilities; situational awareness;electronic warfare; weapons systems; defensive avionics systems and architecture; weight reduction initiatives; modular avionics/cyber security implementation; airborne networking, and changes to the underlying aircraft systems necessary to enable these capabilities.

Nacelle Improvements: Capabilities include Nacelle Improvements, Infrared Suppressor (IRS), Electric Power System Upgrade, Generator Control Unit (GCU); nacelle wiring, heat exchanger, engine health monitoring, nacelle structure, and performance buyback. Common nacelle improvements for both the CV-22 and MV-22 fleets will increase overall aircraft readiness/availability, reduce platform operating life cycle costs, and mitigate impacts to aircraft performance and survivability.

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	P-1 Line Item Number / Title: V02200 / CV-22 Mods	Modification Number / Title: 8790 / Block 20 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:	
Models of Systems Affected: CV-22	Modification Type: Capability Improvement	Related RDT&E PEs: 0401318F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 40: AC Bus Tie Impr												
A Kits												
Recurring												
AC Bus Tie Impr:INSTALL KITS Group A (Active)	22 / 0.105	12 / 0.058	11 / 0.055	6 / 0.030	- / -	6 / 0.030	- / -	- / -	- / -	- / -	- / -	51 / 0.248
Subtotal: Recurring	*- / 0.105*	*- / 0.058*	*- / 0.055*	*- / 0.030*	*- / -*	*- / 0.030*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.248*
Subtotal: AC Bus Tie Impr	*- / 0.105*	*- / 0.058*	*- / 0.055*	*- / 0.030*	*- / -*	*- / 0.030*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.248*
Modification Item 2 of 40: Advanced Multifunctional Display												
A Kits												
Recurring												
Advanced Multifunctional Display:INSTALL KITS Group A (Active)	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.300	8 / 0.800	8 / 0.800	8 / 0.800	24 / 2.400	51 / 5.100
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.300*	*- / 0.800*	*- / 0.800*	*- / 0.800*	*- / 2.400*	*- / 5.100*
Subtotal: Advanced Multifunctional Display	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.300*	*- / 0.800*	*- / 0.800*	*- / 0.800*	*- / 2.400*	*- / 5.100*
Modification Item 3 of 40: Advanced Threat Warning (AF Config)												
A Kits												
Recurring												
Advanced Threat Warning (AF Config):INSTALL KITS Group A (Active)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	51 / 71.600	51 / 71.600
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 71.600*	*- / 71.600*
Subtotal: Advanced Threat Warning (AF Config)	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 71.600*	*- / 71.600*
Modification Item 4 of 40: Advanced Threat Warning System (JUON)												
A Kits												
Recurring												
Advanced Threat Warning System (JUON):INSTALL KITS Group A (Active)	10 / 1.880	12 / 2.844	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	22 / 4.724
Subtotal: Recurring	*- / 1.880*	*- / 2.844*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 4.724*
B Kits												
Recurring												
Advanced Threat Warning System (JUON):EQUIPMENT Group B (Active)	10 / 10.615	12 / 10.083	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	22 / 20.698

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: CV-22	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0401318F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Subtotal: Recurring	- / 10.615	- / 10.083	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 20.698
Subtotal: Advanced Threat Warning System (JUON)	- / 12.495	- / 12.927	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 25.422
Modification Item 5 of 40: Airborne Mission Networking												
A Kits												
Recurring												
Airborne Mission Networking:INSTALL KITS Group A (Active)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 7.300	- / -	48 / 29.517	51 / 36.817
Subtotal: Recurring	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 7.300	- / -	- / 29.517	- / 36.817
Subtotal: Airborne Mission Networking	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 7.300	- / -	- / 29.517	- / 36.817
Modification Item 6 of 40: Auto Dependent Surveillance-Broadcast ADSB/Out												
A Kits												
Recurring												
Auto Dependent Surveillance-Broadcast ADSB/Out:INSTALL KITS Group A (Active)	20 / 1.620	31 / 1.472	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	51 / 3.092
Subtotal: Recurring	- / 1.620	- / 1.472	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.092
Subtotal: Auto Dependent Surveillance-Broadcast ADSB/Out	- / 1.620	- / 1.472	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.092
Modification Item 7 of 40: Blk C ECP901												
A Kits												
Recurring												
Blk C ECP901:INSTALL KITS Group A (Active)	21 / 14.765	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	21 / 14.765
Subtotal: Recurring	- / 14.765	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 14.765
Subtotal: Blk C ECP901	- / 14.765	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 14.765
Modification Item 8 of 40: BLOS ECP1041												
A Kits												
Recurring												
BLOS ECP1041:INSTALL KITS Group A (Active)	11 / 1.459	- / -	11 / 2.034	11 / 2.191	- / -	11 / 2.191	6 / 1.315	11 / 2.420	- / -	- / -	- / -	50 / 9.419
Subtotal: Recurring	- / 1.459	- / -	- / 2.034	- / 2.191	- / -	- / 2.191	- / 1.315	- / 2.420	- / -	- / -	- / -	- / 9.419
Subtotal: BLOS ECP1041	- / 1.459	- / -	- / 2.034	- / 2.191	- / -	- / 2.191	- / 1.315	- / 2.420	- / -	- / -	- / -	- / 9.419
Modification Item 9 of 40: Cockpit Voice Recorder ECP964												

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: CV-22	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0401318F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
A Kits												
Recurring												
Cockpit Voice Recorder ECP964:INSTALL KITS Group A (Active)	16 / 0.518	- / -	- / -	11 / 0.396	- / -	11 / 0.396	11 / 0.396	10 / 0.360	- / -	- / -	- / -	48 / 1.670
Subtotal: Recurring	*- / 0.518*	*- / -*	*- / -*	*- / 0.396*	*- / -*	*- / 0.396*	*- / 0.396*	*- / 0.360*	*- / -*	*- / -*	*- / -*	*- / 1.670*
Subtotal: Cockpit Voice Recorder ECP964	*- / 0.518*	*- / -*	*- / -*	*- / 0.396*	*- / -*	*- / 0.396*	*- / 0.396*	*- / 0.360*	*- / -*	*- / -*	*- / -*	*- / 1.670*
Modification Item 10 of 40: Co-Site ECP901												
A Kits												
Recurring												
Co-Site ECP901:INSTALL KITS Group A (Active)	30 / 15.230	4 / 1.289	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	34 / 16.519
Subtotal: Recurring	*- / 15.230*	*- / 1.289*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 16.519*
Subtotal: Co-Site ECP901	*- / 15.230*	*- / 1.289*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 16.519*
Modification Item 11 of 40: Data Transfer Unit Upgrade												
A Kits												
Recurring												
Data Transfer Unit Upgrade:INSTALL KITS Group A (Active)	- / -	- / -	25 / 0.500	26 / 0.520	- / -	26 / 0.520	- / -	- / -	- / -	- / -	- / -	51 / 1.020
Subtotal: Recurring	*- / -*	*- / -*	*- / 0.500*	*- / 0.520*	*- / -*	*- / 0.520*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 1.020*
Subtotal: Data Transfer Unit Upgrade	*- / -*	*- / -*	*- / 0.500*	*- / 0.520*	*- / -*	*- / 0.520*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 1.020*
Modification Item 12 of 40: Drive Tube ECP929												
A Kits												
Recurring												
Drive Tube ECP929:INSTALL KITS Group A (Active)	- / -	8 / 0.450	10 / 0.563	10 / 0.563	- / -	10 / 0.563	10 / 0.563	13 / 0.732	- / -	- / -	- / -	51 / 2.871
Subtotal: Recurring	*- / -*	*- / 0.450*	*- / 0.563*	*- / 0.563*	*- / -*	*- / 0.563*	*- / 0.563*	*- / 0.732*	*- / -*	*- / -*	*- / -*	*- / 2.871*
Subtotal: Drive Tube ECP929	*- / -*	*- / 0.450*	*- / 0.563*	*- / 0.563*	*- / -*	*- / 0.563*	*- / 0.563*	*- / 0.732*	*- / -*	*- / -*	*- / -*	*- / 2.871*
Modification Item 13 of 40: Electric Power System Upgrade												
A Kits												
Recurring												
Electric Power System Upgrade:INSTALL KITS Group A (Active)	- / -	- / -	23 / 0.897	24 / 0.936	- / -	24 / 0.936	4 / 0.156	- / -	- / -	- / -	- / -	51 / 1.989
Subtotal: Recurring	*- / -*	*- / -*	*- / 0.897*	*- / 0.936*	*- / -*	*- / 0.936*	*- / 0.156*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 1.989*

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	P-1 Line Item Number / Title: V02200 / CV-22 Mods	Modification Number / Title: 8790 / Block 20 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:	
Models of Systems Affected: CV-22	Modification Type: Capability Improvement	Related RDT&E PEs: 0401318F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Subtotal: Electric Power System Upgrade	- / -	- / -	- / 0.897	- / 0.936	- / -	- / 0.936	- / 0.156	- / -	- / -	- / -	- / -	- / 1.989
Modification Item 14 of 40: Emergency O2 Bottle Gauge ECP527R1												
A Kits												
Recurring												
Emergency O2 Bottle Gauge ECP527R1:INSTALL KITS Group A (Active)	44 / 0.035	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	44 / 0.035
Subtotal: Recurring	- / 0.035	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.035
Subtotal: Emergency O2 Bottle Gauge ECP527R1	- / 0.035	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.035
Modification Item 15 of 40: Engine Thermo-Couple Wiring Harness ECP1075												
A Kits												
Recurring												
Engine Thermo-Couple Wiring Harness ECP1075:INSTALL KITS Group A (Active)	10 / 0.152	- / -	11 / 0.172	11 / 0.176	- / -	11 / 0.176	11 / 0.176	7 / 0.115	- / -	- / -	- / -	50 / 0.791
Subtotal: Recurring	- / 0.152	- / -	- / 0.172	- / 0.176	- / -	- / 0.176	- / 0.176	- / 0.115	- / -	- / -	- / -	- / 0.791
Subtotal: Engine Thermo-Couple Wiring Harness ECP1075	- / 0.152	- / -	- / 0.172	- / 0.176	- / -	- / 0.176	- / 0.176	- / 0.115	- / -	- / -	- / -	- / 0.791
Modification Item 16 of 40: Fuel Jettison ECP906												
A Kits												
Recurring												
Fuel Jettison ECP906:INSTALL KITS Group A (Active)	26 / 10.212	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	26 / 10.212
Subtotal: Recurring	- / 10.212	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 10.212
Subtotal: Fuel Jettison ECP906	- / 10.212	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 10.212
Modification Item 17 of 40: Fwd Looking Infrared Systems Electronics Unit (FLIR SEU)												
A Kits												
Recurring												
Fwd Looking Infrared Systems Electronics Unit (FLIR SEU):INSTALL KITS Group A (Active)	30 / 1.259	10 / 0.379	11 / 0.421	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	51 / 2.059
Subtotal: Recurring	- / 1.259	- / 0.379	- / 0.421	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.059
Subtotal: Fwd Looking Infrared Systems Electronics Unit (FLIR SEU)	- / 1.259	- / 0.379	- / 0.421	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.059
Modification Item 18 of 40: GAU-21 Gun												

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	P-1 Line Item Number / Title: V02200 / CV-22 Mods	Modification Number / Title: 8790 / Block 20 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:	
Models of Systems Affected: CV-22	Modification Type: Capability Improvement	Related RDT&E PEs: 0401318F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
A Kits												
Recurring												
GAU-21 Gun:INSTALL KITS Group A (Active)	100 / 2.007	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	100 / 2.007
Subtotal: Recurring	*- / 2.007*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 2.007*
Subtotal: GAU-21 Gun	*- / 2.007*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 2.007*
Modification Item 19 of 40: Gen 5 Radio ECP866R1												
A Kits												
Recurring												
Gen 5 Radio ECP866R1:INSTALL KITS Group A (Active)	39 / 0.066	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	39 / 0.066
Subtotal: Recurring	*- / 0.066*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.066*
B Kits												
Recurring												
Gen 5 Radio ECP866R1:EQUIPMENT Group B (Active)	39 / 11.896	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	39 / 11.896
Subtotal: Recurring	*- / 11.896*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 11.896*
Subtotal: Gen 5 Radio ECP866R1	*- / 11.962*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 11.962*
Modification Item 20 of 40: Gen 6 Radio												
A Kits												
Recurring												
Gen 6 Radio:INSTALL KITS Group A (Active)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 1.038	11 / 3.806	11 / 3.806	26 / 8.996	51 / 17.646
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 1.038*	*- / 3.806*	*- / 3.806*	*- / 8.996*	*- / 17.646*
Subtotal: Gen 6 Radio	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 1.038*	*- / 3.806*	*- / 3.806*	*- / 8.996*	*- / 17.646*
Modification Item 21 of 40: Gimbal Ring Joint Redesign ECP1001												
A Kits												
Recurring												
Gimbal Ring Joint Redesign ECP1001:INSTALL KITS Group A (Active)	- / -	- / -	- / -	10 / 0.420	- / -	10 / 0.420	10 / 0.420	12 / 0.504	12 / 0.504	7 / 0.029	- / -	51 / 1.877
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / 0.420*	*- / -*	*- / 0.420*	*- / 0.420*	*- / 0.504*	*- / 0.504*	*- / 0.029*	*- / -*	*- / 1.877*
Subtotal: Gimbal Ring Joint Redesign ECP1001	*- / -*	*- / -*	*- / -*	*- / 0.420*	*- / -*	*- / 0.420*	*- / 0.420*	*- / 0.504*	*- / 0.504*	*- / 0.029*	*- / -*	*- / 1.877*
Modification Item 22 of 40: GPS M-Code Upgrade												
A Kits												

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: CV-22	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0401318F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Recurring												
GPS M-Code Upgrade:INSTALL KITS Group A (Active)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 0.662	11 / 1.870	36 / 5.940	51 / 8.472
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.662*	*- / 1.870*	*- / 5.940*	*- / 8.472*
Subtotal: GPS M-Code Upgrade	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.662*	*- / 1.870*	*- / 5.940*	*- / 8.472*
Modification Item 23 of 40: Intel Broadcast Receiver Upgrade												
A Kits												
Recurring												
Intel Broadcast Receiver Upgrade:INSTALL KITS Group A (Active)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	51 / 45.900	51 / 45.900
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 45.900*	*- / 45.900*
Subtotal: Intel Broadcast Receiver Upgrade	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 45.900*	*- / 45.900*
Modification Item 24 of 40: MCOI CAPRE												
A Kits												
Recurring												
MCOI CAPRE:INSTALL KITS Group A (Active)	5 / 0.050	- / -	11 / 0.114	11 / 0.118	- / -	11 / 0.118	11 / 0.121	11 / 0.013	- / -	- / -	- / -	49 / 0.416
Subtotal: Recurring	*- / 0.050*	*- / -*	*- / 0.114*	*- / 0.118*	*- / -*	*- / 0.118*	*- / 0.121*	*- / 0.013*	*- / -*	*- / -*	*- / -*	*- / 0.416*
Subtotal: MCOI CAPRE	*- / 0.050*	*- / -*	*- / 0.114*	*- / 0.118*	*- / -*	*- / 0.118*	*- / 0.121*	*- / 0.013*	*- / -*	*- / -*	*- / -*	*- / 0.416*
Modification Item 25 of 40: MCOI ECP873												
A Kits												
Recurring												
MCOI ECP873:INSTALL KITS Group A (Active)	5 / 2.651	- / -	11 / 5.027	11 / 5.027	- / -	11 / 5.027	9 / 4.113	5 / 2.285	- / -	- / -	- / -	41 / 19.103
Subtotal: Recurring	*- / 2.651*	*- / -*	*- / 5.027*	*- / 5.027*	*- / -*	*- / 5.027*	*- / 4.113*	*- / 2.285*	*- / -*	*- / -*	*- / -*	*- / 19.103*
Subtotal: MCOI ECP873	*- / 2.651*	*- / -*	*- / 5.027*	*- / 5.027*	*- / -*	*- / 5.027*	*- / 4.113*	*- / 2.285*	*- / -*	*- / -*	*- / -*	*- / 19.103*
Modification Item 26 of 40: Mode 5 APX-119 ECP935												
A Kits												
Recurring												
Mode 5 APX-119 ECP935:INSTALL KITS Group A (Active)	36 / 2.288	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	36 / 2.288
Subtotal: Recurring	*- / 2.288*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 2.288*
Subtotal: Mode 5 APX-119 ECP935	*- / 2.288*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 2.288*
Modification Item 27 of 40: Nacelle Improvements												

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	P-1 Line Item Number / Title: V02200 / CV-22 Mods	Modification Number / Title: 8790 / Block 20 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:	
Models of Systems Affected: CV-22	Modification Type: Capability Improvement	Related RDT&E PEs: 0401318F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
A Kits												
Recurring												
Nacelle Improvements:INSTALL KITS Group A (Active)	- / -	- / -	- / -	- / -	- / -	- / -	1 / 7.000	3 / 16.500	11 / 60.500	3 / 16.500	33 / 198.000	51 / 298.500
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 7.000*	*- / 16.500*	*- / 60.500*	*- / 16.500*	*- / 198.000*	*- / 298.500*
Subtotal: Nacelle Improvements	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 7.000*	*- / 16.500*	*- / 60.500*	*- / 16.500*	*- / 198.000*	*- / 298.500*
Modification Item 28 of 40: Nose Landing Gear ECP869												
A Kits												
Recurring												
Nose Landing Gear ECP869:INSTALL KITS Group A (Active)	14 / 0.091	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	14 / 0.091
Subtotal: Recurring	*- / 0.091*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.091*
Subtotal: Nose Landing Gear ECP869	*- / 0.091*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.091*
Modification Item 29 of 40: O2N2 Concentrator Sieve Bed Correction ECP1107												
A Kits												
Recurring												
O2N2 Concentrator Sieve Bed Correction ECP1107:INSTALL KITS Group A (Active)	- / -	5 / 0.108	10 / 0.122	10 / 0.124	- / -	10 / 0.124	10 / 0.127	10 / 0.129	6 / 0.080	- / -	- / -	51 / 0.690
Subtotal: Recurring	*- / -*	*- / 0.108*	*- / 0.122*	*- / 0.124*	*- / -*	*- / 0.124*	*- / 0.127*	*- / 0.129*	*- / 0.080*	*- / -*	*- / -*	*- / 0.690*
Subtotal: O2N2 Concentrator Sieve Bed Correction ECP1107	*- / -*	*- / 0.108*	*- / 0.122*	*- / 0.124*	*- / -*	*- / 0.124*	*- / 0.127*	*- / 0.129*	*- / 0.080*	*- / -*	*- / -*	*- / 0.690*
Modification Item 30 of 40: PRGB Atmospheric Protection ECP992												
A Kits												
Recurring												
PRGB Atmospheric Protection ECP992:INSTALL KITS Group A (Active)	8 / 0.050	8 / 0.050	17 / 0.106	18 / 0.112	- / -	18 / 0.112	- / -	- / -	- / -	- / -	- / -	51 / 0.318
Subtotal: Recurring	*- / 0.050*	*- / 0.050*	*- / 0.106*	*- / 0.112*	*- / -*	*- / 0.112*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.318*
Subtotal: PRGB Atmospheric Protection ECP992	*- / 0.050*	*- / 0.050*	*- / 0.106*	*- / 0.112*	*- / -*	*- / 0.112*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.318*
Modification Item 31 of 40: PRGB Input Quill/Clutch Redesign												
A Kits												
Recurring												

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	P-1 Line Item Number / Title: V02200 / CV-22 Mods	Modification Number / Title: 8790 / Block 20 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:	
Models of Systems Affected: CV-22	Modification Type: Capability Improvement	Related RDT&E PEs: 0401318F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty (Each) / Total Cost ($ M)	Qty (Each) / Total Cost ($ M)	Qty (Each) / Total Cost ($ M)	Qty (Each) / Total Cost ($ M)	Qty (Each) / Total Cost ($ M)	Qty (Each) / Total Cost ($ M)	Qty (Each) / Total Cost ($ M)	Qty (Each) / Total Cost ($ M)	Qty (Each) / Total Cost ($ M)	Qty (Each) / Total Cost ($ M)	Qty (Each) / Total Cost ($ M)	Qty (Each) / Total Cost ($ M)
PRGB Input Quill/Clutch Redesign:INSTALL KITS Group A (Active)	- / -	- / -	- / -	12 / 0.600	- / -	12 / 0.600	12 / 0.600	12 / 0.600	12 / 0.600	- / -	- / -	48 / 2.400
Subtotal: Recurring	- / -	- / -	- / -	- / 0.600	- / -	- / 0.600	- / 0.600	- / 0.600	- / 0.600	- / -	- / -	- / 2.400
Subtotal: PRGB Input Quill/Clutch Redesign	- / -	- / -	- / -	- / 0.600	- / -	- / 0.600	- / 0.600	- / 0.600	- / 0.600	- / -	- / -	- / 2.400
Modification Item 32 of 40: Prop Rotor Hub Spring & Drive Link Impr												
A Kits												
Recurring												
Prop Rotor Hub Spring & Drive Link Impr:INSTALL KITS Group A (Active)	- / -	- / -	12 / 0.836	12 / 0.853	- / -	12 / 0.853	12 / 0.870	12 / 0.870	3 / 0.217	- / -	- / -	51 / 3.646
Subtotal: Recurring	- / -	- / -	- / 0.836	- / 0.853	- / -	- / 0.853	- / 0.870	- / 0.870	- / 0.217	- / -	- / -	- / 3.646
Subtotal: Prop Rotor Hub Spring & Drive Link Impr	- / -	- / -	- / 0.836	- / 0.853	- / -	- / 0.853	- / 0.870	- / 0.870	- / 0.217	- / -	- / -	- / 3.646
Modification Item 33 of 40: Rudder Reliability ECP1020												
A Kits												
Recurring												
Rudder Reliability ECP1020:INSTALL KITS Group A (Active)	12 / 0.028	20 / 0.081	6 / 0.034	8 / 0.046	- / -	8 / 0.046	- / -	- / -	- / -	- / -	- / -	46 / 0.189
Subtotal: Recurring	- / 0.028	- / 0.081	- / 0.034	- / 0.046	- / -	- / 0.046	- / -	- / -	- / -	- / -	- / -	- / 0.189
Subtotal: Rudder Reliability ECP1020	- / 0.028	- / 0.081	- / 0.034	- / 0.046	- / -	- / 0.046	- / -	- / -	- / -	- / -	- / -	- / 0.189
Modification Item 34 of 40: Satcom Antenna Mounting ECP901R2												
A Kits												
Recurring												
Satcom Antenna Mounting ECP901R2:INSTALL KITS Group A (Active)	15 / 0.035	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / 0.035
Subtotal: Recurring	- / 0.035	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.035
Subtotal: Satcom Antenna Mounting ECP901R2	- / 0.035	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.035
Modification Item 35 of 40: Satcom Beefy Cables Retrofit ECP901R2												
A Kits												
Recurring												
Satcom Beefy Cables Retrofit ECP901R2:INSTALL KITS Group A (Active)	26 / 0.136	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	26 / 0.136

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	P-1 Line Item Number / Title: V02200 / CV-22 Mods	Modification Number / Title: 8790 / Block 20 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:	
Models of Systems Affected: CV-22	Modification Type: Capability Improvement	Related RDT&E PEs: 0401318F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty (Each) / Total Cost ($ M)	Qty (Each) / Total Cost ($ M)	Qty (Each) / Total Cost ($ M)	Qty (Each) / Total Cost ($ M)	Qty (Each) / Total Cost ($ M)	Qty (Each) / Total Cost ($ M)	Qty (Each) / Total Cost ($ M)	Qty (Each) / Total Cost ($ M)	Qty (Each) / Total Cost ($ M)	Qty (Each) / Total Cost ($ M)	Qty (Each) / Total Cost ($ M)	Qty (Each) / Total Cost ($ M)
Subtotal: Recurring	- / 0.136	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.136
Subtotal: Satcom Beefy Cables Retrofit ECP901R2	- / 0.136	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.136
Modification Item 36 of 40: Satcom Egg Beater Antenna ECP901R2												
A Kits												
Recurring												
Satcom Egg Beater Antenna ECP901R2:INSTALL KITS Group A (Active)	27 / 0.599	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	27 / 0.599
Subtotal: Recurring	- / 0.599	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.599
Subtotal: Satcom Egg Beater Antenna ECP901R2	- / 0.599	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.599
Modification Item 37 of 40: Satcom Troop Commander Panel ECP901R2												
A Kits												
Recurring												
Satcom Troop Commander Panel ECP901R2:INSTALL KITS Group A (Active)	20 / 0.018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	20 / 0.018
Subtotal: Recurring	- / 0.018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.018
Subtotal: Satcom Troop Commander Panel ECP901R2	- / 0.018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.018
Modification Item 38 of 40: Swashplate Actuator ECP980												
A Kits												
Recurring												
Swashplate Actuator ECP980:INSTALL KITS Group A (Active)	46 / 0.074	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	46 / 0.074
Subtotal: Recurring	- / 0.074	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.074
Subtotal: Swashplate Actuator ECP980	- / 0.074	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.074
Modification Item 39 of 40: Upper and Lower Rod Ends (Formerly Pitch Link)												
A Kits												
Recurring												
Upper and Lower Rod Ends (Formerly Pitch Link):INSTALL KITS Group A (Active)	- / -	- / -	- / -	10 / 0.800	- / -	10 / 0.800	12 / 0.960	12 / 0.960	12 / 0.960	5 / 0.400	- / -	51 / 4.080
Subtotal: Recurring	- / -	- / -	- / -	- / 0.800	- / -	- / 0.800	- / 0.960	- / 0.960	- / 0.960	- / 0.400	- / -	- / 4.080

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: CV-22	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0401318F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Subtotal: Upper and Lower Rod Ends (Formerly Pitch Link)	- / -	- / -	- / -	- / 0.800	- / -	- / 0.800	- / 0.960	- / 0.960	- / 0.960	- / 0.400	- / -	- / 4.080
Modification Item 40 of 40: Wiring Harness ECP915												
A Kits												
Recurring												
Wiring Harness ECP915:INSTALL KITS Group A (Active)	35 / 0.608	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	35 / 0.608
Subtotal: Recurring	- / 0.608	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.608
Subtotal: Wiring Harness ECP915	- / 0.608	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.608
Subtotal: Procurement, All Modification Items	- / 78.447	- / 16.814	- / 10.881	- / 12.912	- / -	- / 12.912	- / 17.117	- / 27.326	- / 75.429	- / 23.405	- / 362.353	- / 624.684
Support *(All Modification Items)*												
GROUP A: TOTAL NONRECURRING	- / 30.020	- / 15.469	- / 15.270	- / 12.798	- / -	- / 12.798	- / 9.365	- / 7.622	- / 11.558	- / 13.591	- / 12.000	- / 127.693
PMA - Contractor Services	- / 13.868	- / 6.645	- / 6.958	- / 6.913	- / -	- / 6.913	- / 7.052	- / 7.193	- / 7.337	- / 7.486	- / 34.151	- / 97.603
Mod of Spares	- / 0.808	- / 0.552	- / 0.576	- / 0.594	- / -	- / 0.594	- / 0.250	- / 0.250	- / 0.250	- / 0.250	- / 1.368	- / 4.898
Data	- / 5.000	- / 2.500	- / 2.500	- / 2.500	- / -	- / 2.500	- / 1.500	- / 0.600	- / 0.600	- / 0.600	- / 5.000	- / 20.800
SIM/TRAINER	18 / 25.418	2 / 7.498	5 / 7.871	4 / 7.412	- / -	4 / 7.412	8 / 7.989	3 / 6.056	5 / 6.445	5 / 7.090	24 / 27.916	74 / 103.695
SUPPORT-EQUIP	- / 3.699	- / 2.026	- / 2.637	- / 2.573	- / -	- / 2.573	- / 2.700	- / 0.500	- / 1.500	- / 1.500	- / 10.000	- / 27.135
OTHER GOVT	- / 16.648	- / 7.903	- / 10.016	- / 8.061	- / -	- / 8.061	- / 8.222	- / 8.387	- / 8.554	- / 8.726	- / 36.975	- / 113.492
Subtotal: Support	18 / 95.461	2 / 42.593	5 / 45.828	4 / 40.851	- / -	4 / 40.851	8 / 37.078	3 / 30.608	5 / 36.244	5 / 39.243	24 / 127.410	74 / 495.316
Installation												
Modification Item 1 of 40: AC Bus Tie Impr	11 / 0.098	11 / 0.103	12 / 0.105	11 / 0.120	- / -	11 / 0.120	6 / 0.060	- / -	- / -	- / -	- / -	51 / 0.486
Modification Item 4 of 40: Advanced Threat Warning System (JUON)	- / -	10 / 0.910	3 / 0.300	9 / 0.900	- / -	9 / 0.900	- / -	- / -	- / -	- / -	- / -	22 / 2.110
Modification Item 7 of 40: Blk C ECP901	15 / 2.372	3 / 0.469	3 / 0.488	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	21 / 3.329
Modification Item 8 of 40: BLOS ECP1041	- / -	- / -	11 / 0.355	11 / 0.620	- / -	11 / 0.620	11 / 0.574	6 / 0.620	11 / 0.605	- / -	- / -	50 / 2.774
Modification Item 9 of 40: Cockpit Voice Recorder ECP964	5 / 0.088	- / -	- / -	11 / 0.198	- / -	11 / 0.198	11 / 0.198	8 / 0.144	9 / 0.162	4 / 0.072	- / -	48 / 0.862
Modification Item 10 of 40: Co-Site ECP901	21 / 1.029	7 / 0.334	3 / 0.052	3 / 0.163	- / -	3 / 0.163	- / -	- / -	- / -	- / -	- / -	34 / 1.578
Modification Item 13 of 40: Electric Power System Upgrade	- / -	- / -	- / -	10 / 1.000	- / -	10 / 1.000	20 / 2.000	17 / 1.700	4 / 0.400	- / -	- / -	51 / 5.100
Modification Item 15 of 40: Engine Thermo-Couple Wiring Harness ECP1075	- / -	- / -	10 / 0.209	11 / 0.240	- / -	11 / 0.240	11 / 0.256	11 / 0.027	7 / 0.173	- / -	- / -	50 / 0.905
Modification Item 16 of 40: Fuel Jettison ECP906	26 / 3.679	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	26 / 3.679

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: CV-22	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 0401318F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Modification Item 19 of 40: Gen 5 Radio ECP866R1	- / -	13 / 0.133	13 / 0.131	13 / 0.131	- / -	13 / 0.131	- / -	- / -	- / -	- / -	- / -	39 / 0.395
Modification Item 20 of 40: Gen 6 Radio	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.026	11 / 0.026	37 / 0.136	51 / 0.188
Modification Item 21 of 40: Gimbal Ring Joint Redesign ECP1001	- / -	- / -	- / -	- / -	- / -	- / -	10 / 0.300	10 / 0.300	12 / 0.360	12 / 0.360	7 / 0.210	51 / 1.530
Modification Item 25 of 40: MCOI ECP873	- / -	- / -	5 / 0.329	11 / 0.931	- / -	11 / 0.931	11 / 0.959	9 / 0.988	5 / 0.028	- / -	- / -	41 / 3.235
Modification Item 27 of 40: Nacelle Improvements	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.500	- / -	11 / 5.500	3 / 1.500	36 / 18.000	51 / 25.500
Modification Item 28 of 40: Nose Landing Gear ECP869	14 / 0.098	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	14 / 0.098
Modification Item 32 of 40: Prop Rotor Hub Spring & Drive Link Impr	- / -	- / -	- / -	12 / 0.212	- / -	12 / 0.212	12 / 0.216	12 / 0.221	12 / 0.221	3 / 0.056	- / -	51 / 0.926
Modification Item 33 of 40: Rudder Reliability ECP1020	12 / 0.217	- / -	20 / 0.296	4 / 0.115	- / -	4 / 0.115	10 / 0.291	- / -	- / -	- / -	- / -	46 / 0.919
Modification Item 34 of 40: Satcom Antenna Mounting ECP901R2	15 / 0.100	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / 0.100
Modification Item 35 of 40: Satcom Beefy Cables Retrofit ECP901R2	19 / 0.313	2 / 0.009	2 / 0.009	3 / 0.011	- / -	3 / 0.011	- / -	- / -	- / -	- / -	- / -	26 / 0.342
Modification Item 36 of 40: Satcom Egg Beater Antenna ECP901R2	19 / 0.050	2 / 0.008	2 / 0.008	4 / 0.013	- / -	4 / 0.013	- / -	- / -	- / -	- / -	- / -	27 / 0.079
Modification Item 37 of 40: Satcom Troop Commander Panel ECP901R2	15 / 0.087	5 / 0.023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	20 / 0.110
Modification Item 40 of 40: Wiring Harness ECP915	35 / 1.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	35 / 1.500
Subtotal: Installation	*207 / 9.631*	*53 / 1.989*	*84 / 2.282*	*113 / 4.654*	*- / -*	*113 / 4.654*	*103 / 5.354*	*73 / 4.000*	*74 / 7.475*	*33 / 2.014*	*80 / 18.346*	*820 / 55.745*
Total												
Total Cost (Procurement + Support + Installation)	**183.539**	**61.396**	**58.991**	**58.417**	**0.000**	**58.417**	**59.549**	**61.934**	**119.148**	**64.662**	**508.109**	**1,175.745**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 1 of 40: AC Bus Tie Impr

Manufacturer Information

Manufacturer Name: Bell-Boeing

Manufacturer Location: Amarillo TX

Administrative Leadtime *(in Months)*: 6

Production Leadtime *(in Months)*: 6

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Apr 2017	Apr 2018	Apr 2019	Sep 2020			
Delivery Dates	Oct 2017	Oct 2018	Oct 2019	Mar 2021			

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	11 / 0.098	11 / 0.103	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	22 / 0.201
FY 2017	- / -	- / -	12 / 0.105	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 0.105
FY 2018	- / -	- / -	- / -	11 / 0.120	- / -	11 / 0.120	- / -	- / -	- / -	- / -	- / -	11 / 0.120
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.060	- / -	- / -	- / -	- / -	6 / 0.060
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	11 / 0.098	11 / 0.103	12 / 0.105	11 / 0.120	- / -	11 / 0.120	6 / 0.060	- / -	- / -	- / -	- / -	51 / 0.486

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	11	5	6	-	-	6	6	-	-	5	6	-	-	-	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	0	51
Out	11	-	5	6	-	-	6	6	-	-	5	6	-	-	-	3	3	-	-	-	-	-	-	-	-	-	-	-	-	0	51

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 2 of 40: Advanced Multifunctional Display

Manufacturer Information

Manufacturer Name: Bell-Boeing

Manufacturer Location: Amarillo, TX

Administrative Leadtime *(in Months)*: 4

Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates				Feb 2020	Feb 2021	Feb 2022	Feb 2023
Delivery Dates				Feb 2021	Feb 2022	Feb 2023	Feb 2024

Installation Information

Method of Implementation (Organic): Org/Intermediate

Installation Quantity: 51

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 3 of 40: Advanced Threat Warning (AF Config)

Manufacturer Information

Manufacturer Name: TBD

Manufacturer Location: TBD

Administrative Leadtime *(in Months)*: 5

Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation (Organic): Org/Intermediate

Installation Quantity: 0

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 4 of 40: Advanced Threat Warning System (JUON)

Manufacturer Information

Manufacturer Name: Bell-Boeing	Manufacturer Location: Amarillo TX
Administrative Leadtime *(in Months)*: 10	Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Aug 2017						
Delivery Dates	Aug 2018						

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	10 / 0.910	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 0.910
FY 2017	- / -	- / -	3 / 0.300	9 / 0.900	- / -	9 / 0.900	- / -	- / -	- / -	- / -	- / -	12 / 1.200
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	10 / 0.910	3 / 0.300	9 / 0.900	- / -	9 / 0.900	- / -	- / -	- / -	- / -	- / -	22 / 2.110

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	5	5	-	-	-	3	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	22
Out	0	-	-	-	5	5	-	-	-	3	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	22

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 5 of 40: Airborne Mission Networking

Manufacturer Information

Manufacturer Name: TBD

Manufacturer Location: TBD

Administrative Leadtime *(in Months)*: 4

Production Leadtime *(in Months)*: 4

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates						Feb 2022	
Delivery Dates						Jun 2022	

Installation Information

Method of Implementation (Organic): Org/Intermediate

Installation Quantity: 51

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 6 of 40: Auto Dependent Surveillance-Broadcast ADSB/Out

Manufacturer Information

Manufacturer Name: iGATM

Manufacturer Location: Hanscom, MA

Administrative Leadtime *(in Months)*: 5

Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Jul 2017						
Delivery Dates	Jul 2018						

Installation Information

Method of Implementation (Organic): Org/Intermediate

Installation Quantity: 51

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 7 of 40: Blk C ECP901

Manufacturer Information

Manufacturer Name: Bell-Boeing	Manufacturer Location: Amarillo TX
Administrative Leadtime *(in Months)*: 2	Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	15 / 2.372	3 / 0.469	3 / 0.488	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	21 / 3.329
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	15 / 2.372	3 / 0.469	3 / 0.488	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	21 / 3.329

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	15	1	2	-	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	21
Out	15	-	1	2	-	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	21

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 8 of 40: BLOS ECP1041

Manufacturer Information

Manufacturer Name: Bell-Boeing	Manufacturer Location: Amarillo TX
Administrative Leadtime *(in Months)*: 8	Production Leadtime *(in Months)*: 11

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Jun 2018	Jun 2019	Jun 2020	Jun 2021		
Delivery Dates		May 2019	May 2020	May 2021	May 2022		

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	11 / 0.355	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	11 / 0.355
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	11 / 0.620	- / -	11 / 0.620	- / -	- / -	- / -	- / -	- / -	11 / 0.620
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	11 / 0.574	- / -	- / -	- / -	- / -	11 / 0.574
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.620	- / -	- / -	- / -	6 / 0.620
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	11 / 0.605	- / -	- / -	11 / 0.605
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	11 / 0.355	11 / 0.620	- / -	11 / 0.620	11 / 0.574	6 / 0.620	11 / 0.605	- / -	- / -	50 / 2.774

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	5	6	-	-	6	5	2	3	3	3	-	-	2	4	3	3	3	2	-	-	-	-	0	50
Out	0	-	-	-	-	-	-	-	5	6	-	-	6	5	2	3	3	3	-	-	2	4	3	3	3	2	-	-	-	0	50

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 9 of 40: Cockpit Voice Recorder ECP964

Manufacturer Information

Manufacturer Name: Bell-Boeing

Manufacturer Location: Amarillo TX

Administrative Leadtime *(in Months)*: 1

Production Leadtime *(in Months)*: 11

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates			Nov 2018	Dec 2019	Dec 2020		
Delivery Dates			Oct 2019	Nov 2020	Nov 2021		

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	5 / 0.088	- / -	- / -	11 / 0.198	- / -	11 / 0.198	- / -	- / -	- / -	- / -	- / -	16 / 0.286
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	11 / 0.198	- / -	- / -	- / -	- / -	11 / 0.198
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 0.144	3 / 0.054	- / -	- / -	11 / 0.198
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.108	4 / 0.072	- / -	10 / 0.180
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	5 / 0.088	- / -	- / -	11 / 0.198	- / -	11 / 0.198	11 / 0.198	8 / 0.144	9 / 0.162	4 / 0.072	- / -	48 / 0.862

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	5	-	-	-	-	-	-	-	-	3	3	3	2	3	3	3	2	2	2	2	2	3	3	3	-	2	2	-	-	0	48
Out	5	-	-	-	-	-	-	-	-	-	3	3	3	2	3	3	3	2	2	2	2	2	3	3	3	-	2	2	-	0	48

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 10 of 40: Co-Site ECP901

Manufacturer Information

Manufacturer Name: Bell-Boeing

Manufacturer Location: Amarillo TX

Administrative Leadtime *(in Months)*: 2

Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Dec 2016						
Delivery Dates	Dec 2017						

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	21 / 1.029	7 / 0.334	2 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	30 / 1.363
FY 2017	- / -	- / -	1 / 0.052	3 / 0.163	- / -	3 / 0.163	- / -	- / -	- / -	- / -	- / -	4 / 0.215
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	21 / 1.029	7 / 0.334	3 / 0.052	3 / 0.163	- / -	3 / 0.163	- / -	- / -	- / -	- / -	- / -	34 / 1.578

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	21	2	2	2	1	2	1	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	34
Out	21	-	2	2	2	1	2	1	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	34

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 11 of 40: Data Transfer Unit Upgrade

Manufacturer Information

Manufacturer Name: Bell-Boeing

Manufacturer Location: Amarillo TX

Administrative Leadtime *(in Months)*: 4

Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Feb 2018	Feb 2019				
Delivery Dates		Feb 2019	Feb 2020				

Installation Information

Method of Implementation (Organic): Org/Intermediate

Installation Quantity: 51

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 12 of 40: Drive Tube ECP929

Manufacturer Information

Manufacturer Name: Bell-Boeing

Manufacturer Location: Amarillo TX

Administrative Leadtime *(in Months)*: 2

Production Leadtime *(in Months)*: 3

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Dec 2016	Dec 2017	Dec 2018	Dec 2019	Dec 2021		
Delivery Dates	Mar 2017	Mar 2018	Mar 2019	Mar 2020	Mar 2022		

Installation Information

Method of Implementation (Organic): Org/Intermediate

Installation Quantity: 51

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 13 of 40: Electric Power System Upgrade

Manufacturer Information

Manufacturer Name: Bell-Boeing	Manufacturer Location: Amarillo, TX
Administrative Leadtime *(in Months)*: 1	Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Nov 2017	Nov 2018	Jul 2020			
Delivery Dates		Nov 2018	Nov 2019	Jul 2021			

Installation Information

Method of Implementation: Contractor Facility

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	10 / 1.000	- / -	10 / 1.000	10 / 1.000	3 / 0.300	- / -	- / -	- / -	23 / 2.300
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	10 / 1.000	14 / 1.400	- / -	- / -	- / -	24 / 2.400
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 0.400	- / -	- / -	4 / 0.400
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	10 / 1.000	- / -	10 / 1.000	20 / 2.000	17 / 1.700	4 / 0.400	- / -	- / -	51 / 5.100

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	2	2	3	3	5	5	5	5	4	4	4	5	4	-	-	-	-	-	-	-	0	51
Out	0	-	-	-	-	-	-	-	-	-	2	2	3	3	5	5	5	5	4	4	4	5	4	-	-	-	-	-	-	0	51

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 14 of 40: Emergency O2 Bottle Gauge ECP527R1

Manufacturer Information

Manufacturer Name: Bell-Boeing

Manufacturer Location: Amarillo TX

Administrative Leadtime *(in Months)*: 9

Production Leadtime *(in Months)*: 14

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation (Organic): Org/Intermediate

Installation Quantity: 44

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 15 of 40: Engine Thermo-Couple Wiring Harness ECP1075

Manufacturer Information

Manufacturer Name: Bell-Boeing

Manufacturer Location: Amarillo TX

Administrative Leadtime *(in Months)*: 2

Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Dec 2017	Dec 2018	Dec 2019	Dec 2020		
Delivery Dates		Dec 2018	Dec 2019	Dec 2020	Dec 2021		

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	10 / 0.209	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 0.209
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	11 / 0.240	- / -	11 / 0.240	- / -	- / -	- / -	- / -	- / -	11 / 0.240
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	11 / 0.256	- / -	- / -	- / -	- / -	11 / 0.256
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	11 / 0.027	- / -	- / -	- / -	11 / 0.027
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 0.173	- / -	- / -	7 / 0.173
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	10 / 0.209	11 / 0.240	- / -	11 / 0.240	11 / 0.256	11 / 0.027	7 / 0.173	- / -	- / -	50 / 0.905

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	2	2	3	3	3	3	3	2	3	3	3	2	3	3	3	2	3	3	1	-	-	-	-	-	0	50
Out	0	-	-	-	-	-	2	2	3	3	3	3	3	2	3	3	3	2	3	3	3	2	3	3	1	-	-	-	-	0	50

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 16 of 40: Fuel Jettison ECP906

Manufacturer Information

Manufacturer Name: Bell-Boeing	Manufacturer Location: Amarillo TX
Administrative Leadtime *(in Months)*: 2	Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	26 / 3.679	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	26 / 3.679
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	26 / 3.679	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	26 / 3.679

Installation Schedule

		FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023					
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	26
Out	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	26

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 17 of 40: Fwd Looking Infrared Systems Electronics Unit (FLIR SEU)

Manufacturer Information

Manufacturer Name: Bell-Boeing

Manufacturer Location: Amarillo TX

Administrative Leadtime *(in Months)*: 1

Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Nov 2017	Nov 2018				
Delivery Dates		Nov 2018	Nov 2019				

Installation Information

Method of Implementation (Organic): Org/Intermediate

Installation Quantity: 51

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 18 of 40: GAU-21 Gun

Manufacturer Information

Manufacturer Name: Specialty CNC Incorporated

Manufacturer Location: Bloomington IN

Administrative Leadtime *(in Months)*: 0

Production Leadtime *(in Months)*: 0

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation (Organic): Org/Intermediate

Installation Quantity: 100

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 19 of 40: Gen 5 Radio ECP866R1

Manufacturer Information

Manufacturer Name: Bell-Boeing	Manufacturer Location: Amarillo TX
Administrative Leadtime *(in Months)*: 1	Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	13 / 0.133	13 / 0.131	13 / 0.131	- / -	13 / 0.131	- / -	- / -	- / -	- / -	- / -	39 / 0.395
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	13 / 0.133	13 / 0.131	13 / 0.131	- / -	13 / 0.131	- / -	- / -	- / -	- / -	- / -	39 / 0.395

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	3	3	3	4	4	4	4	1	4	4	4	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	39
Out	0	-	3	3	3	4	4	4	4	1	4	4	4	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	39

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 20 of 40: Gen 6 Radio

Manufacturer Information

Manufacturer Name: TBD	Manufacturer Location: Patuxent River, MD
Administrative Leadtime *(in Months)*: 6	Production Leadtime *(in Months)*: 10

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates					Apr 2021	Apr 2022	Apr 2023
Delivery Dates					Feb 2022	Feb 2023	Feb 2024

Installation Information

Method of Implementation: Contractor Facility

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.026	- / -	- / -	3 / 0.026
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	11 / 0.026	- / -	11 / 0.026
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	11 / 0.026	11 / 0.026
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	26 / 0.110	26 / 0.110
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.026	11 / 0.026	37 / 0.136	51 / 0.188

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	5	6	37	51
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	5	43	51

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 21 of 40: Gimbal Ring Joint Redesign ECP1001

Manufacturer Information

Manufacturer Name: Bell-Boeing

Manufacturer Location: Amarillo TX

Administrative Leadtime *(in Months)*: 2

Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates			Dec 2018	Dec 2019	Dec 2020	Dec 2021	Dec 2022
Delivery Dates			Dec 2019	Dec 2020	Dec 2021	Dec 2022	Dec 2023

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	10 / 0.300	- / -	- / -	- / -	- / -	10 / 0.300
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 0.300	- / -	- / -	- / -	10 / 0.300
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 0.360	- / -	- / -	12 / 0.360
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 0.360	- / -	12 / 0.360
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 0.210	7 / 0.210
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	10 / 0.300	10 / 0.300	12 / 0.360	12 / 0.360	7 / 0.210	51 / 1.530

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	-	3	3	2	2	3	3	2	2	3	3	3	3	3	3	3	3	7	51
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	2	2	3	3	2	2	3	3	3	3	3	3	3	10	51

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 22 of 40: GPS M-Code Upgrade

Manufacturer Information

Manufacturer Name: TBD

Manufacturer Location: TBD

Administrative Leadtime *(in Months)*: 6

Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates					Apr 2021	Apr 2022	Apr 2023
Delivery Dates					Apr 2022	Apr 2023	Apr 2024

Installation Information

Method of Implementation (Organic): Org/Intermediate

Installation Quantity: 51

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 23 of 40: Intel Broadcast Receiver Upgrade

Manufacturer Information

Manufacturer Name: Bell-Boeing

Manufacturer Location: Amarillo TX

Administrative Leadtime *(in Months)*: 2

Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							Dec 2023
Delivery Dates							Dec 2024

Installation Information

Method of Implementation (Organic): Org/Intermediate

Installation Quantity: 51

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 24 of 40: MCOI CAPRE

Manufacturer Information

Manufacturer Name: Prototype Integration Facility

Manufacturer Location: Huntsville AL

Administrative Leadtime *(in Months)*: 2

Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Mar 2017	Dec 2017	Dec 2018	Dec 2019	Dec 2020	Dec 2021	
Delivery Dates	Mar 2018	Dec 2018	Dec 2019	Dec 2020	Dec 2021	Dec 2022	

Installation Information

Method of Implementation (Organic): Org/Intermediate

Installation Quantity: 49

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Modification Item 25 of 40: MCOI ECP873		

Manufacturer Information

Manufacturer Name: Elbit Systems	Manufacturer Location: Fort Worth, TX
Administrative Leadtime *(in Months)*: 2	Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Dec 2017	Dec 2018	Dec 2019	Dec 2020		
Delivery Dates		Dec 2018	Dec 2019	Dec 2020	Dec 2021		

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	5 / 0.329	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.329
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	11 / 0.931	- / -	11 / 0.931	- / -	- / -	- / -	- / -	- / -	11 / 0.931
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	11 / 0.959	- / -	- / -	- / -	- / -	11 / 0.959
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 0.988	- / -	- / -	- / -	9 / 0.988
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.028	- / -	- / -	5 / 0.028
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	5 / 0.329	11 / 0.931	- / -	11 / 0.931	11 / 0.959	9 / 0.988	5 / 0.028	- / -	- / -	41 / 3.235

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	1	1	1	2	2	3	3	3	2	3	3	3	2	2	2	3	3	2	-	-	-	-	-	-	0	41
Out	0	-	-	-	-	-	1	1	1	2	2	3	3	3	2	3	3	3	2	2	2	3	3	2	-	-	-	-	-	0	41

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 26 of 40: Mode 5 APX-119 ECP935

Manufacturer Information

Manufacturer Name: Raytheon

Manufacturer Location: Aberdeen Proving Grounds MD

Administrative Leadtime *(in Months)*: 2

Production Leadtime *(in Months)*: 10

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation (Organic): Org/Intermediate

Installation Quantity: 36

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 27 of 40: Nacelle Improvements

Manufacturer Information

Manufacturer Name: Bell-Boeing	Manufacturer Location: Amarillo TX
Administrative Leadtime *(in Months)*: 5	Production Leadtime *(in Months)*: 3

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates				Mar 2020	Mar 2021	Mar 2022	Mar 2023
Delivery Dates				Jun 2020	Jun 2021	Jun 2022	Jun 2023

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.500	- / -	- / -	- / -	- / -	1 / 0.500
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 1.500	- / -	- / -	3 / 1.500
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 4.000	3 / 1.500	- / -	11 / 5.500
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 1.500	3 / 1.500
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	33 / 16.500	33 / 16.500
Total	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.500	- / -	11 / 5.500	3 / 1.500	36 / 18.000	51 / 25.500

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	3	4	4	1	1	1	-	36	51
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	3	4	4	1	1	1	36	51

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 28 of 40: Nose Landing Gear ECP869

Manufacturer Information

Manufacturer Name: Bell-Boeing	Manufacturer Location: Amarillo TX
Administrative Leadtime *(in Months)*: 1	Production Leadtime *(in Months)*: 3

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Contractor Facility

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	14 / 0.098	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	14 / 0.098
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	14 / 0.098	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	14 / 0.098

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	14
Out	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	14

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 29 of 40: O2N2 Concentrator Sieve Bed Correction ECP1107

Manufacturer Information

Manufacturer Name: TBD

Manufacturer Location: TBD

Administrative Leadtime *(in Months)*: 0

Production Leadtime *(in Months)*: 0

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation (Organic): Org/Intermediate

Installation Quantity: 51

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 30 of 40: PRGB Atmospheric Protection ECP992

Manufacturer Information

Manufacturer Name: Bell-Boeing

Manufacturer Location: Amarillo TX

Administrative Leadtime *(in Months)*: 6

Production Leadtime *(in Months)*: 18

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Apr 2017	Apr 2018	Apr 2019				
Delivery Dates	Oct 2018	Oct 2019	Oct 2020				

Installation Information

Method of Implementation (Organic): Org/Intermediate

Installation Quantity: 51

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 31 of 40: PRGB Input Quill/Clutch Redesign

Manufacturer Information

Manufacturer Name: Bell-Boeing

Manufacturer Location: Amarillo TX

Administrative Leadtime *(in Months)*: 5

Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates			Mar 2019	Dec 2019	Dec 2020	Dec 2021	
Delivery Dates			Mar 2020	Dec 2020	Dec 2021	Dec 2022	

Installation Information

Method of Implementation (Organic): Org/Intermediate

Installation Quantity: 48

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 32 of 40: Prop Rotor Hub Spring & Drive Link Impr

Manufacturer Information

Manufacturer Name: Bell-Boeing

Manufacturer Location: Amarillo TX

Administrative Leadtime *(in Months)*: 2

Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Dec 2017	Dec 2018	Dec 2019	Dec 2020	Dec 2021	
Delivery Dates		Dec 2018	Dec 2019	Dec 2020	Dec 2021	Dec 2022	

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	12 / 0.212	- / -	12 / 0.212	- / -	- / -	- / -	- / -	- / -	12 / 0.212
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	12 / 0.216	- / -	- / -	- / -	- / -	12 / 0.216
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 0.221	- / -	- / -	- / -	12 / 0.221
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 0.221	- / -	- / -	12 / 0.221
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.056	- / -	3 / 0.056
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	12 / 0.212	- / -	12 / 0.212	12 / 0.216	12 / 0.221	12 / 0.221	3 / 0.056	- / -	51 / 0.926

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	-	-	-	0	51
Out	0	-	-	-	-	-	-	-	-	-	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	-	-	0	51

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 33 of 40: Rudder Reliability ECP1020

Manufacturer Information

Manufacturer Name: Bell-Boeing	Manufacturer Location: Amarillo TX
Administrative Leadtime *(in Months)*: 2	Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Dec 2016	Dec 2017	Dec 2018				
Delivery Dates	Dec 2017	Dec 2018	Dec 2019				

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	12 / 0.217	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 0.217
FY 2017	- / -	- / -	20 / 0.296	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	20 / 0.296
FY 2018	- / -	- / -	- / -	4 / 0.115	- / -	4 / 0.115	2 / 0.058	- / -	- / -	- / -	- / -	6 / 0.173
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	8 / 0.233	- / -	- / -	- / -	- / -	8 / 0.233
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	12 / 0.217	- / -	20 / 0.296	4 / 0.115	- / -	4 / 0.115	10 / 0.291	- / -	- / -	- / -	- / -	46 / 0.919

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	12	-	-	-	-	4	4	6	6	2	2	-	-	2	2	2	4	-	-	-	-	-	-	-	-	-	-	-	-	0	46
Out	12	-	-	-	-	-	4	4	6	6	2	2	-	-	2	2	2	4	-	-	-	-	-	-	-	-	-	-	-	0	46

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 34 of 40: Satcom Antenna Mounting ECP901R2

Manufacturer Information

Manufacturer Name: Bell-Boeing	Manufacturer Location: Amarillo TX
Administrative Leadtime *(in Months)*: 2	Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	15 / 0.100	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / 0.100
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	15 / 0.100	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / 0.100

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	15
Out	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	15

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 35 of 40: Satcom Beefy Cables Retrofit ECP901R2

Manufacturer Information

Manufacturer Name: Bell-Boeing	Manufacturer Location: Amarillo TX
Administrative Leadtime *(in Months)*: 2	Production Leadtime *(in Months)*: 6

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	19 / 0.313	2 / 0.009	2 / 0.009	3 / 0.011	- / -	3 / 0.011	- / -	- / -	- / -	- / -	- / -	26 / 0.342
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	19 / 0.313	2 / 0.009	2 / 0.009	3 / 0.011	- / -	3 / 0.011	- / -	- / -	- / -	- / -	- / -	26 / 0.342

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	19	-	2	-	-	-	2	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	26
Out	18	1	-	2	-	-	-	2	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	26

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 36 of 40: Satcom Egg Beater Antenna ECP901R2

Manufacturer Information

Manufacturer Name: Bell-Boeing	Manufacturer Location: Amarillo TX
Administrative Leadtime *(in Months)*: 3	Production Leadtime *(in Months)*: 3

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	19 / 0.050	2 / 0.008	2 / 0.008	4 / 0.013	- / -	4 / 0.013	- / -	- / -	- / -	- / -	- / -	27 / 0.079
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	19 / 0.050	2 / 0.008	2 / 0.008	4 / 0.013	- / -	4 / 0.013	- / -	- / -	- / -	- / -	- / -	27 / 0.079

Installation Schedule

		FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023					
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	19	-	2	-	-	-	2	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	27
Out	18	1	-	2	-	-	-	2	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	27

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 37 of 40: Satcom Troop Commander Panel ECP901R2

Manufacturer Information

Manufacturer Name: Bell-Boeing	Manufacturer Location: Amarillo TX
Administrative Leadtime *(in Months)*: 2	Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	15 / 0.087	5 / 0.023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	20 / 0.110
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	15 / 0.087	5 / 0.023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	20 / 0.110

Installation Schedule

		FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023					
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	15	-	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	20
Out	15	-	-	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	20

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 38 of 40: Swashplate Actuator ECP980

Manufacturer Information

Manufacturer Name: Bell-Boeing

Manufacturer Location: Amarillo TX

Administrative Leadtime *(in Months)*: 7

Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation (Organic): Org/Intermediate

Installation Quantity: 46

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 39 of 40: Upper and Lower Rod Ends (Formerly Pitch Link)

Manufacturer Information

Manufacturer Name: Bell-Boeing

Manufacturer Location: Amarillo TX

Administrative Leadtime *(in Months)*: 5

Production Leadtime *(in Months)*: 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates			Mar 2019	Dec 2019	Dec 2020	Dec 2021	Dec 2022
Delivery Dates			Mar 2020	Dec 2020	Dec 2021	Dec 2022	Dec 2023

Installation Information

Method of Implementation (Organic): Org/Intermediate

Installation Quantity: 51

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 8790 / Block 20 Upgrade
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 40 of 40: Wiring Harness ECP915

Manufacturer Information

Manufacturer Name: Bell-Boeing	Manufacturer Location: Amarillo TX
Administrative Leadtime *(in Months)*: 4	Production Leadtime *(in Months)*: 3

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Prior Years	35 / 1.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	35 / 1.500
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	35 / 1.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	35 / 1.500

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	35
Out	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	35

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 1 / Low Cost Modifications
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	15.408	1.999	1.999	1.999	0.000	1.999	1.999	1.999	1.999	1.999	9.995	39.396
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	15.408	1.999	1.999	1.999	0.000	1.999	1.999	1.999	1.999	1.999	9.995	39.396
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**15.408**	**1.999**	**1.999**	**1.999**	**0.000**	**1.999**	**1.999**	**1.999**	**1.999**	**1.999**	**9.995**	**39.396**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This funds low cost modifications for CV-22 weapon system and training devices that are necessary to maintain operational safety, suitability, and effectiveness.

Milestone/Development Status

N/A

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 1 / Low Cost Modifications
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: CV-22	**Modification Type:** Other	**Related RDT&E PEs:** 0401318F

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
Procurement												
Modification Item 1 of 1: LCM												
A Kits												
Recurring												
LCM:INSTALL KITS Group A (Active)	0 / 15.408	- / 1.999	- / 1.999	- / 1.999	- / -	- / 1.999	- / 1.999	- / 1.999	- / 1.999	- / 1.999	- / 9.995	0 / 39.396
Subtotal: Recurring	*- / 15.408*	*- / 1.999*	*- / 1.999*	*- / 1.999*	*- / -*	*- / 1.999*	*- / 1.999*	*- / 1.999*	*- / 1.999*	*- / 1.999*	*- / 9.995*	*- / 39.396*
Subtotal: LCM	*- / 15.408*	*- / 1.999*	*- / 1.999*	*- / 1.999*	*- / -*	*- / 1.999*	*- / 1.999*	*- / 1.999*	*- / 1.999*	*- / 1.999*	*- / 9.995*	*- / 39.396*
Subtotal: Procurement, All Modification Items	*- / 15.408*	*- / 1.999*	*- / 1.999*	*- / 1.999*	*- / -*	*- / 1.999*	*- / 1.999*	*- / 1.999*	*- / 1.999*	*- / 1.999*	*- / 9.995*	*- / 39.396*
Installation												
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*
Total												
Total Cost (Procurement + Support + Installation)	**15.408**	**1.999**	**1.999**	**1.999**	**0.000**	**1.999**	**1.999**	**1.999**	**1.999**	**1.999**	**9.995**	**39.396**

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 5	**P-1 Line Item Number / Title:** V02200 / CV-22 Mods	**Modification Number / Title:** 1 / Low Cost Modifications

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Modification Item 1 of 1: LCM

Manufacturer Information

Manufacturer Name: Bell-Boeing

Manufacturer Location: Amarillo TX

Administrative Leadtime *(in Months)*: 0

Production Leadtime *(in Months)*: 0

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation (Organic): Org/Intermediate

Installation Quantity: 0

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