Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Air Force

Date: February 2019

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

3600: Research, Development, Test & Evaluation, Air Force I BA 7:

PE 0101126F *I B-1B Squadrons*

Operational Systems Development

COST (\$ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
Total Program Element	-	60.367	60.295	1.000	0.000	1.000	27.315	14.157	8.107	0.000	0.000	171.241
675344: B-1B Modernization	-	60.367	60.295	1.000	0.000	1.000	27.315	14.157	8.107	0.000	0.000	171.241
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

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 AF inventory. The multi-mission B-1B is the backbone of America's long-range conventional 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 current structural service life extends beyond 2040.

The B-1B modernization projects alleviate aircraft obsolescence issues due to Diminishing Manufacturing Sources (DMS) while at the same time providing improved capabilities to the B-1B weapon system that require significant hardware and software development and testing.

FULLY INTEGRATED TARGETING POD (FITP)

The Fully Integrated Targeting Pod (FITP) modification permanently integrates the Advanced Targeting Pod (ATP) capability into the B-1B's avionics flight software architecture and replaces the B-1B's Temporary T-1 Beyond Line of Sight (BLOS) / Laptop Controlled Targeting Pod (LCTP) system with a digital, high-definition videostreaming targeting pod. This will provide increased B-1B aircrew situational awareness, weapons de-confliction, and Intelligence, Surveillance and Reconnaissance (ISR) within the Combat Air Forces (CAF). FITP will provide robust combat targeting processing power, computing speed and throughput for aircrew mission planning, and a permanent sustainment support structure. It will provide all four crew members access to targeting pod information displayed on digital-quality video using the Integrated Battle Station (IBS), Multi-Function Displays (MFDs), and the cursor controller. FITP will address the aircrew ergonomic issues caused by the current system configuration, allowing more rapid prosecution of targets through improved integration with Avionics Flight Software (AFS) capabilities. In addition, FITP will provide growth capability for implementation and interaction with follow-on systems to augment targeting pod use. Furthermore, the FITP removes the need for an Interim Contractor Support (ICS) sustainment support structure, which will resolve DMS issues.

MODE 5/S AUTOMATIC SURVEILLANCE BROADCAST (ADS-B) OUT

B-1B Identification Friend or Foe (IFF) Mode 5/S is the replacement for the B-1B Mark XII IFF Mode 4. Mode 5 will provide secure target identification and will be a response system for combat identification. Mode Select (Mode S) and ADS-B Out provides timely aircraft position and flight path prediction to receiver units for aircraft, Air Traffic Control, and the Air Defense System . The IFF Mode 5 upgrade uses an automated system that responds to interrogations to avoid the loss of B-1B aircraft through fratricide. Mode 5 is a Joint Requirements Oversight Council (JROC) mandate. Funds are included to accommodate the DoD mandate as outlined in previous AF and DoD budget exhibits.

RADIO CRYPTO COMPLIANCE

PE 0101126F: B-1B Squadrons

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R-1 Line #166

Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Air Force

Date: February 2019

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

3600: Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development

PE 0101126F I B-1B Squadrons

The B-1B Radio Crypto Compliance requirements originated to meet DoD mandates by a classified need date. If the requirements are not met, the B-1B is at risk of losing secure Line of Sight (LOS) and BLOS communication with ground and air forces. The Air Force is in the process of negotiating a short-term waiver to the mandate. Without the radio crypto compliance the B-1B will not be able to participate in CONUS/OCONUS military operations. The program replaces the existing radios with crypto-compliant radios providing BLOS communications. Funds are included to accommodate the DoD mandate as outlined in previous AF and DoD budget exhibits.

Multifunctional Information Distribution System (MIDS) - Joint Tactical Radio System (JTRS)

The B-1B Multifunctional Information Distribution System (MIDS) - Joint Tactical Radio System (JTRS) replaces the existing MIDS Low Volume Terminal (LVT) 1 Link 16 terminal to meet National Security Agency (NSA) Crypto Modernization (CM) Device Cease Key and FAA Frequency Remap mandates: Current systems become non-compliant in 2025. MIDS-JTRS resolves all LVT 1 deficiencies and adds substantial combat capability enhancements to Link 16 Enhanced Throughput (LET) and Concurrent Multi-Netting (CMN-4) with Concurrent Retention Receive (CRR). MIDS-JTRS also provides multi-datalink capability, improving situational awareness and allowing rapid in-flight retargeting in a cooperative combat environment. Funds are included to accommodate DoT/DoD-approved Frequency Remap and Crypto Modernization Device Cease mandates as outlined in previous AF and DoD budget exhibits.

Bomb Rack Unit 56 (BRU-56)

The Bomb Rack Unit 56 (BRU-56) upgrade will mitigate a safety risk present within the legacy BRU-56 ejector rack. The upgrade will alleviate the deficiency within the current ejector rack as well as add increased carriage capability. Prolonged use has resulted in a deficiency of the rivets within the linkage of the rack. This deficiency led to multiple failures, to include one Class A mishap in 2003, one Class C mishap in 2010, and multiple ground mishaps. The BRU-56 modification guards against future bomb rack mishaps and the possibility of a catastrophic aircraft loss as well as the loss of life.

GAP AND INTEGRATION ANALYSIS

Program funds cover engineering/planning studies, related engineering efforts, and the auxiliary equipment needed for development projects that have not yet been fielded. Funds may be used to resolve emerging safety of flight and DMS issues, accommodate technology insertion, and fulfill FAA (or other) mandates necessary to ensure continued aircrew safety and mission effectiveness. Costs includes Program Management Administrative (PMA) costs, total ownership cost, as well as initiatives for anticipated weapon system enhancements, to include efforts for improving weapon system operational capabilities, safety, supportability, maintainability, and reliability. All B-1B development projects support planned requirements for unique identification in their production phases. Funding is also required to ensure test asset availability for testing of aircraft RDT&E efforts.

This PE may include necessary civilian pay expenses required to manage, execute, and deliver B-1B weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in PEs 0605826F, 0605827F, 0605828F, 0605829F, 0605830F, 0605831F, 0605832F, and 0605898F.

As directed in the FY 2018 NDAA, Sec 825, amendment to PL 114-92 FY 2016 NDAA, Sec 828 Penalty for Cost Overruns, the FY 2018 Air Force penalty total is \$14.373M. The calculated percentage reduction to each research, development, test and evaluation and procurement account will be allocated proportionally from all programs, projects, or activities under such account.

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PE 0101126F: B-1B Squadrons

Air Force Page 2 of 11 R-1 Line #166

Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Air Force

Date: February 2019

Appropriation/Budget Activity

3600: Research, Development, Test & Evaluation, Air Force I BA 7:

Operational Systems Development

R-1 Program Element (Number/Name)
PE 0101126F / B-1B Squadrons

This program is in Budget Activity 7, 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.

B. Program Change Summary (\$ in Millions)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Previous President's Budget	62.471	76.030	6.586	0.000	6.586
Current President's Budget	60.367	60.295	1.000	0.000	1.000
Total Adjustments	-2.104	-15.735	-5.586	0.000	-5.586
 Congressional General Reductions 	0.000	0.000			
 Congressional Directed Reductions 	0.000	-15.735			
 Congressional Rescissions 	0.000	0.000			
 Congressional Adds 	0.000	0.000			
 Congressional Directed Transfers 	0.000	0.000			
Reprogrammings	0.000	0.000			
SBIR/STTR Transfer	-2.104	0.000			
Other Adjustments	0.000	0.000	-5.586	0.000	-5.586

Change Summary Explanation

FY18: Decrease of \$2.104M for SBIR

FY19: Decrease of \$15.735M consists of congressional marks of: -\$2.435M for MIDS-JTRS and -\$13.300M for FITP

FY20: Decrease of \$5.586M for BRU-56

C. Accomplishments/Planned Programs (\$ in Millions)	FY 2018	FY 2019	FY 2020
Title: Fully Integrated Targeting Pod	24.142	7.088	0.000
Description: The Fully Integrated Targeting Pod (FITP) Modification permanently integrates the Advanced Targeting Pod (ATP) capability into the B-1B's avionics flight software architecture and replaces the B-1B's Temporary T-1 Beyond Line of Sight (BLOS) / Laptop Controlled Targeting Pod (LCTP) system with a digital, high-definition video-streaming targeting pod. This will provide increased B-1B aircrew situational awareness, weapons de-confliction, and Intelligence, Surveillance and Reconnaissance (ISR) within the Combat Air Forces (CAF). FITP will provide robust combat targeting processing power, computing speed and throughput for aircrew mission planning, and a permanent sustainment support structure. It will provide all four crew members access to targeting pod information displayed on digital-quality video using the Integrated Battle Station (IBS), Multi-Function Displays (MFDs), and the cursor controller. FITP will address the aircrew ergonomic issues caused by the current system configuration, allowing more rapid prosecution of targets through improved integration with Avionics Flight Software (AFS) capabilities. In addition, FITP will provide growth capability for implementation and interaction with follow-on systems to augment			

PE 0101126F: *B-1B Squadrons*

Air Force

R-1 Line #166

Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Air Force		Date: F	ebruary 2019	
Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development	R-1 Program Element (Number/Name) PE 0101126F <i>I B-1B Squadrons</i>			
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2018	FY 2019	FY 2020
targeting pod use. Furthermore, the FITP removes the need for an ICS susissue.	tainment support structure, which will resolve the DMS			
FY 2019 Plans: Complete Gap & Integration Analysis, continue Pre-Milestone B activities to	o include Preliminary Design Review (PDR).			
FY 2020 Plans: N/A				
FY 2019 to FY 2020 Increase/Decrease Statement: No approved funding for FY20.				
Title: Mode 5/S Automatic Dependent Surveillance Broadcast (ADS-B) Out		14.137	17.065	0.00
Description: B-1B Identification Friend or Foe (IFF) Mode 5/S is the replace provide secure target identification and will be a response system for combining the composition of the provides timely aircraft position and flight path prediction to receiver un System. The IFF Mode 5 upgrade uses an automated system that responds through fratricide. Upgrades to ADS-B Out and Mode S are required FAA mandate. Failure to meet these mandates will result in delayed/denied services.	at identification. Mode Select (Mode S) and ADS-B its for aircraft, Air Traffic Control, and the Air Defense is to interrogations to avoid the loss of B-1B aircraft mandates and the upgrade to Mode 5 is a JROC			
FY 2019 Plans: Continue Engineering and Manufacturing Development (EMD) efforts. Development Review, Systems Requirement Review, Systems Functional review, and Software S				
FY 2020 Plans: N/A				
FY 2019 to FY 2020 Increase/Decrease Statement: No approved funding for FY20				
Title: Radio Crypto Compliance		5.298	8.491	0.00
Description: The B-1B Radio Crypto Compliance requirements originated requirements are not met, the B-1B is at risk of losing secure Line of Sight (forces. The Air Force is in the process of negotiating a short-term waiver to B-1B will not be able to participate in CONUS/OCONUS military operations	(LOS) and BLOS communication with ground and air the mandate. Without the radio crypto compliance the			

PE 0101126F: *B-1B Squadrons*

Air Force Page 4 of 11 R-1 Line #166

Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Air Force		Date: F	ebruary 2019	
Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development	R-1 Program Element (Number/Name) PE 0101126F <i>I B-1B Squadrons</i>	,		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2018	FY 2019	FY 2020
compliant radios providing BLOS communications. Funds are included to a AF and DoD budget exhibits.	ccommodate the DoD mandate as outlined in previous			
FY 2019 Plans: Continue Engineering and Manufacturing Development (EMD) efforts. Dev Systems Requirement Review, Systems Functional review, and Software S				
FY 2020 Plans: N/A				
FY 2019 to FY 2020 Increase/Decrease Statement: No approved funding for FY20				
Title: Multifunctional Information Distribution System-Joint Tactical Radio S	System	8.644	7.280	0.00
Description: The B-1B Multifunctional Information Distribution System (MI the existing MIDS Low Volume Terminal (LVT) 1 Link 16 terminal to meet N (CM) Device Cease Key and FAA Frequency Remap mandates; systems but 1 deficiencies and adds substantial combat capability enhancements Multi-Netting (CMN-4) with Concurrent Retention Receive (CRR). MIDS-JT situational awareness and allowing rapid in-flight retargeting in a cooperation	National Security Agency (NSA) Crypto Modernization become non-compliant in 2025. MIDS-JTRS resolves all to Link 16 Enhanced Throughput (LET) and Concurrent TRS also provides multi-datalink capability, improving			
FY 2019 Plans: Continue Engineering and Manufacturing Development (EMD) efforts. Dev Systems Requirement Review, Systems Functional review, and Software S				
FY 2020 Plans: N/A				
FY 2019 to FY 2020 Increase/Decrease Statement: No approved funding for FY20				
Title: Bomb Rack Unit - 56		6.107	20.114	1.00
Description: The Bomb Rack Unit 56 (BRU-56) upgrade will mitigate a sat The upgrade will alleviate the deficiency within the current ejector rack as whas resulted in a deficiency of the rivets within the linkage of the rack. This	vell as add increased carriage capability. Prolonged use			

PE 0101126F: B-1B Squadrons

Air Force Page 5 of 11 R-1 Line #166

Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Air Force Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 7: R-1 Program Element (Number/Name) PE 0101126F I B-1B Squadrons	Date: F	ebruary 2019)
	,		
Operational Systems Development			
C. Accomplishments/Planned Programs (\$ in Millions)	FY 2018	FY 2019	FY 2020
A mishap in 2003, one Class C mishap in 2010, and multiple ground mishaps. The BRU-56 modification avoids future bomb rack mishaps and the possibility of a catastrophic aircraft loss as well as the loss of life.			
FY 2019 Plans: Award the competitive EMD contract for hardware and continue software development. Begin Preliminary Design Review activities.			
FY 2020 Plans: Complete a Critical Design Review (CDR) and accomplish Developmental Testing / Operational Testing (DT/OT)			
FY 2019 to FY 2020 Increase/Decrease Statement: Funding reduced from FY19 to FY20 due to rephasing of program.			
Title: Gap and Integration Analysis	2.039	0.257	0.000
Description: Funds will be used for studies to facilitate new capabilities and enhancements to improve operational aircraft safety, supportability, maintainability, reliability and total ownership cost. Conduct engineering studies that will involve a gap and integration analysis to include but not limited for Small Diameter Bomb (SDB) II Integration with Universal Armament Interface (UAI), Guided Bomb Unit (GBU)-56 Integration, Miniature Air Launch Decoy (MALD) Integration (All variants), Conventional Mission Upgrade Program (CMUP) and Helmet Mounted Cueing System. Funding is also required to ensure test asset availabilit for testing of aircraft RDT&E efforts.	,		
FY 2019 Plans: Funds used to ensure test asset availability for testing of aircraft RDT&E efforts.			
FY 2020 Plans: N/A			
FY 2019 to FY 2020 Increase/Decrease Statement: No approved funding for Gap & Integration Analysis in FY2020			
Accomplishments/Planned Programs Subtota	s 60.367	60.295	1.000

PE 0101126F: *B-1B Squadrons*

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Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Air Force

Date: February 2019

Appropriation/Budget Activity

3600: Research, Development, Test & Evaluation, Air Force I BA 7:

Operational Systems Development

PE 0101126F *I B-1B Squadrons*

R-1 Program Element (Number/Name)

D. Other Program Funding Summary (\$ in Millions)

			FY 2020	FY 2020	FY 2020					Cost To	
Line Item	FY 2018	FY 2019	Base	OCO	<u>Total</u>	FY 2021	FY 2022	FY 2023	FY 2024	Complete	Total Cost
 APAF 05 Line Item 	0.448	0.450	0.458	-	0.458	0.467	0.476	0.485	0.494	0.000	3.278
B01B00: Training Support to											
Units, Mods PE 0809731F											
• APAF 05 0101126F:	93.286	39.240	21.653	-	21.653	81.819	73.660	106.266	64.262	0.000	480.186
B-1B SQUADRONS											
 APAF 05 Line Item B01B00 	6.906	0.000	0.000	_	0.000	0.718	0.856	0.872	0.563	0.000	9.915
0											

Spares: B-1B Squadrons, Spares

Remarks

E. Acquisition Strategy

FITP acquisition strategy will be a one year Cost Plus Fixed Fee (CPFF) sole source gap and integration contract to Preliminary Design Review (PDR) with a follow-on one-year CPFF sole source contract from PDR to Critical Design Review (CDR). Follow-on will be a sole source Firm Fixed Price (FFP) two year EMD effort. Sub to Northrup Grumman Systems (NG) through the Precision Attack SPO (PASPO) for LITENING Digital Pod (LDP) kit development, new pod procurement, and Pod Integration.

Production will be a sole source FFP contract with a two-year Production and Installation effort.

Mode 5/S ADS-B Out, Radio Crypto Compliance, and MIDS-JTRS acquisition strategies will be a CPFF sole source contract with a four-year EMD effort and a Firm Fixed Price (FFP) competitively-selected contract with a four-year Production and Installation effort.

BRU-56 acquisition strategy is a single award C-type contract and will be competed under FAR Part 15 utilizing source selection procedures for the hardware portion of this effort. The software portion of this effort will be sole source to Boeing (OEM). EMD will be a three and a half year effort with a two and a half year Production and Installation effort.

F. Performance Metrics

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

PE 0101126F: B-1B Squadrons

Air Force

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Air Force

Date: February 2019

Appropriation/Budget Activity R-1 Program Element (Number/Name) Project (Number/Name)

3600 / 7 PE 0101126F / B-1B Squadrons 675344 | B-1B Modernization

Product Developmen	duct Development (\$ in Millions)			FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Fully Integrated Targeting Pod (FITP)	SS/CPFF	Boeing : OKC, OK	-	19.861	Dec 2018	4.217	Sep 2019	-		-		-	0.000	24.078	-
Fully Integrated Targeting Pod (FITP) (Sub-Contract)	SS/CPAF	Northrop Grumman : Rolling Meadow, IL	-	2.517	Feb 2019	2.632	Feb 2019	-		-		-	0.000	5.149	-
Mode 5/S Automatic Dependent Surveillance Broadcast (ADS-B) Out	SS/CPFF	Boeing : OKC, OK	-	12.336	Dec 2018	15.876	Aug 2019	-		-		-	0.000	28.212	-
Radio Crypto Compliance	SS/CPFF	Boeing : OKC, OK	-	4.894	Dec 2018	7.590	Aug 2019	-		-		-	0.000	12.484	-
Multifunctional Information Distribution System (MIDS) Joint Tactical Radio System (JTRS)	SS/CPFF	Boeing : OKC, OK	-	4.766	Dec 2018	6.420	Aug 2019	-		-		-	0.000	11.186	-
Multifunctional Information Distribution System (MIDS) Joint Tactical Radio System (JTRS)	SS/FFP	Viasat : Carlsbad, CA	-	3.356	May 2018	-		-		-		-	0.000	3.356	-
Bomb Rack Unit - (BRU) 56	Various	Boeing : OKC, OK	-	5.631	Sep 2018	19.117	May 2019	1.000	Mar 2020	-		1.000	0.000	25.748	-
		Subtotal	-	53.361		55.852		1.000		-		1.000	0.000	110.213	N/A

Support (\$ in Million	,			FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
Mode 5/S Automatic Dependent Surveillance Broadcast (ADS-B) Out - Technical Support	SS/CPFF	Boeing : OKC, OK	-	0.739	Jun 2018	-		-		-		-	0.000	0.739	-
Gap And Integration Analysis - Defense Avionic Systems	SS/CPFF	Georgia Tech Corp : Atlanta, GA	-	1.012	Jul 2018	-		-		-		-	0.000	1.012	-
Documentation - Technical Support	MIPR	Booz Allen Hamilton : OKC, OK	-	0.988	Dec 2018	1.500	Sep 2019	-		-		-	0.000	2.488	-
		Subtotal	-	2.739		1.500		-		-		-	0.000	4.239	N/A

PE 0101126F: B-1B Squadrons

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Exhibit R-3, RDT&E P	roject Cost Analysis: PB 2	020 Air F	orce				Date: February 2019				
Appropriation/Budge 3600 / 7	t Activity	R-1 Program Ele PE 0101126F <i>I B</i>	•	,	Project (Nu 675344 / B-	on					
Test and Evaluation (\$ in Millions)		FY 2018	FY 2019	FY 2020 Base	FY 20		2020 otal			
	Contract								_		Target

					_0.0	0.0				000		.o.u.			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
AFSEO	PO	Eglin AFB : FL	-	0.755	Aug 2018	-		-		-		-	0.000	0.755	-
AFFTC	MIPR	Edwards AFB : CA	-	0.761	Oct 2018	0.248	Jul 2019	-		-		-	0.000	1.009	-
		Subtotal	-	1.516		0.248		-		-		-	0.000	1.764	N/A
Management Service	ces (\$ in M	lillions)		FV	2040	FV (2040		2020		2020	FY 2020			

Management Service	s (\$ in M	FY 2018 FY 2019			FY 2020 Base		FY 2020 OCO		FY 2020 Total						
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
A&AS	Various	Various : OKC, OK	-	1.677	Oct 2017	0.791	Oct 2018	-		-		-	0.000	2.468	-
PMA	Various	Various : OKC, OK	-	1.074	Oct 2017	1.904	Oct 2018	-		-		-	0.000	2.978	-
		Subtotal	-	2.751		2.695		-		-		-	0.000	5.446	N/A

	Prior Years	FY 2	2018	FY 2	019	FY 2 Ba	FY 2	2020 CO	FY 2020 Total	Cost To	Total Cost	Target Value of Contract
Project Cost Totals	-	60.367		60.295		1.000	-		1.000	0.000	121.662	N/A

Remarks

PE 0101126F: *B-1B Squadrons* Air Force

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hibit R-4, RDT&E Schedule Profile: PB 2020 A	Air Force	е																			Date	:: ⊢e	brua	ary 2	2019		
Appropriation/Budget Activity 8600 / 7																	Project (Number/Name) 675344 / B-1B Modernization										
		FY 2018 FY 2019				2019								2021		FY				FY 2023				FY 20			<u> </u>
	1 2	2 3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
B-1B Modernization																											
Gap & Integration Analysis Contract Award																											
Fully Integrated Targeting Pod - TMRR Activities																											
Fully Integrated Targeting Pod - MS B																											
Fully Integrated Targeting Pod - EMD Activities																											
Fully Integrated Targeting Pod - MS C																											
Fully Integrated Targeting Pod - Production and Installation																											
Mode 5/S ADS-B Out - EMD Activities																											
Mode 5/S ADS-B Out - MS C																										_	
Mode 5/S ADS-B Out - Production and Installation																											
Radio Crypto Compliance - EMD Activities																											
Radio Crypto Compliance - MS C																											
Radio Crypto Compliance - Production and Installation																											
MIDS JTRS - EMD Activities																											
MIDS JTRS - MS C																											
MIDS JTRS - Production and Installation																											
BRU-56 - EMD Activities																											
BRU-56 - MS C																											
BRU-56 - Production and Installation							_							_	_												

PE 0101126F: B-1B Squadrons

Air Force

Exhibit R-4A, RDT&E Schedule Details: PB 2020 Air Force			Date: February 2019
· · · · · · · · · · · · · · · · · ·	,	, ,	umber/Name)
3600 / 7	PE 0101126F I B-1B Squadrons	675344 <i>I B</i>	3-1B Modernization

Schedule Details

	Sta	End				
Events by Sub Project	Quarter	Year	Quarter	Year		
B-1B Modernization						
Gap & Integration Analysis Contract Award	4	2018	4	2018		
Fully Integrated Targeting Pod - TMRR Activities	4	2018	1	2021		
Fully Integrated Targeting Pod - MS B	1	2021	1	2021		
Fully Integrated Targeting Pod - EMD Activities	1	2021	2	2023		
Fully Integrated Targeting Pod - MS C	2	2023	2	2023		
Fully Integrated Targeting Pod - Production and Installation	2	2023	4	2024		
Mode 5/S ADS-B Out - EMD Activities	2	2019	4	2022		
Mode 5/S ADS-B Out - MS C	4	2022	4	2022		
Mode 5/S ADS-B Out - Production and Installation	4	2022	4	2024		
Radio Crypto Compliance - EMD Activities	2	2019	4	2022		
Radio Crypto Compliance - MS C	4	2022	4	2022		
Radio Crypto Compliance - Production and Installation	4	2022	4	2024		
MIDS JTRS - EMD Activities	2	2019	4	2022		
MIDS JTRS - MS C	4	2022	4	2022		
MIDS JTRS - Production and Installation	4	2022	4	2024		
BRU-56 - EMD Activities	4	2018	3	2022		
BRU-56 - MS C	3	2022	3	2022		
BRU-56 - Production and Installation	3	2022	4	2024		

PE 0101126F: B-1B Squadrons

Air Force