DEPARTMENT OF THE NAVY
FISCAL YEAR (FY) 2006/FY 2007
BUDGET ESTIMATES

JUSTIFICATION OF ESTIMATES
FEBRUARY 2005

AIRCRAFT PROCUREMENT, NAVY
Volume I:
BUDGET ACTIVITIES 1-4

DEPARTMENT OF THE NAVY
FY 2006 PROCUREMENT PROGRAM EXHIBIT P-1

APPROPRIATION: 1506N AIRCRAFT PROCUREMENT, NAVY DATE: FEBRUARY 2005

LINE NO	ITEM NOMENCLATURE	IDENT CODE	FY 2004 QUANTITY	FY 2004 COST	FY 2005 QUANTITY	FY 2005 COST	FY 2006 QUANTITY	FY 2006 COST	SEC
			MILLIONS OF DOLLARS						
	BUDGET ACTIVITY 01: COMBAT AIRCRAFT								
	COMBAT AIRCRAFT								
1	AV-8B (V/STOL)HARRIER (MYP)	A		12.4		4.6		1.7	U
2	EA-18G	B					4	(318.4)	U
	LESS: ADVANCE PROCUREMENT (PY)							(-8.2)	U
				-------		-------		-------	
								310.2	
3	EA-18G								
	ADVANCE PROCUREMENT (CY)					8.2		26.5	U
	(FY 2005 FOR FY 2006) (MEMO)					(8.2)			
	(FY 2006 FOR FY 2007) (MEMO)							(26.5)	
4	F/A-18E/F (FIGHTER) HORNET (MYP)	A	42	(3,068.3)	42	(2,980.2)	38	(2,819.3)	U
	LESS: ADVANCE PROCUREMENT (PY)			(-108.4)		(-84.0)		(-83.1)	U
				-------		-------		-------	
				2,959.9		2,896.2		2,736.2	
5	F/A-18E/F (FIGHTER) HORNET (MYP)								
	ADVANCE PROCUREMENT (CY)			84.0		83.1		86.1	U
	(FY 2004 FOR FY 2005) (MEMO)			(84.0)					
	(FY 2005 FOR FY 2006) (MEMO)					(83.1)			
	(FY 2006 FOR FY 2007) (MEMO)							(75.2)	
	(FY 2006 FOR FY 2008) (MEMO)							(3.3)	
	(FY 2006 FOR FY 2009) (MEMO)							(2.7)	
	(FY 2006 FOR FY 2010) (MEMO)							(3.0)	
	(FY 2006 FOR FY 2011) (MEMO)							(1.9)	
6	V-22 (MEDIUM LIFT)		9	(867.9)	8	(881.6)	9	(1,064.5)	U
	LESS: ADVANCE PROCUREMENT (PY)			(-60.9)		(-38.3)		(-71.2)	U
				-------		-------		-------	
				807.0		843.3		993.3	
7	V-22 (MEDIUM LIFT)								
	ADVANCE PROCUREMENT (CY)			38.3		71.2		67.3	U
	(FY 2004 FOR FY 2005) (MEMO)			(38.3)					
	(FY 2005 FOR FY 2006) (MEMO)					(71.2)			
	(FY 2006 FOR FY 2007) (MEMO)							(67.3)	
8	UH-1Y/AH-1Z	A	9	308.6	7	198.9	10	307.5	U

DEPARTMENT OF THE NAVY
FY 2006 PROCUREMENT PROGRAM EXHIBIT P-1

APPROPRIATION: 1506N AIRCRAFT PROCUREMENT, NAVY DATE: FEBRUARY 2005

MILLIONS OF DOLLARS

LINE NO	ITEM NOMENCLATURE	IDENT CODE	FY 2004 QUANTITY	FY 2004 COST	FY 2005 QUANTITY	FY 2005 COST	FY 2006 QUANTITY	FY 2006 COST	SEC
9	MH-60S (MYP)	A	13	(379.9)	15	(390.8)	26	(571.3)	U
	LESS: ADVANCE PROCUREMENT (PY)			(-71.6)		(-96.4)		(-107.9)	U
				308.2		294.5		463.4	
10	MH-60S (MYP)								
	ADVANCE PROCUREMENT (CY)			94.1		104.8		125.7	U
	(FY 2004 FOR FY 2005) (MEMO)			(92.2)					
	(FY 2004 FOR FY 2006) (MEMO)			(2.0)					
	(FY 2005 FOR FY 2006) (MEMO)					(102.9)			
	(FY 2005 FOR FY 2007) (MEMO)					(1.4)			
	(FY 2005 FOR FY 2008) (MEMO)					(.5)			
	(FY 2006 FOR FY 2007) (MEMO)							(115.4)	
	(FY 2006 FOR FY 2008) (MEMO)							(4.4)	
	(FY 2006 FOR FY 2009) (MEMO)							(2.6)	
	(FY 2006 FOR FY 2010) (MEMO)							(1.7)	
	(FY 2006 FOR FY 2011) (MEMO)							(1.6)	
11	MH-60R	A	4	(326.7)	6	(329.6)	12	(504.7)	U
	LESS: ADVANCE PROCUREMENT (PY)			(-36.1)		(-36.6)		(-69.3)	U
				290.6		293.0		435.4	
12	MH-60R								
	ADVANCE PROCUREMENT (CY)			36.6		70.3		119.1	U
	(FY 2004 FOR FY 2005) (MEMO)			(36.6)					
	(FY 2005 FOR FY 2006) (MEMO)					(69.3)			
	(FY 2005 FOR FY 2007) (MEMO)					(.7)			
	(FY 2005 FOR FY 2008) (MEMO)					(.3)			
	(FY 2006 FOR FY 2007) (MEMO)							(117.3)	
	(FY 2006 FOR FY 2008) (MEMO)							(1.7)	

DEPARTMENT OF THE NAVY
FY 2006 PROCUREMENT PROGRAM EXHIBIT P-1

APPROPRIATION: 1506N AIRCRAFT PROCUREMENT, NAVY DATE: FEBRUARY 2005

MILLIONS OF DOLLARS

LINE NO	ITEM NOMENCLATURE	IDENT CODE	FY 2004 QUANTITY	FY 2004 COST	FY 2005 QUANTITY	FY 2005 COST	FY 2006 QUANTITY	FY 2006 COST	SEC
13	E-2C (EARLY WARNING) HAWKEYE (MYP)	A	2	(224.3)	2	(225.3)	2	(237.3)	U
	LESS: ADVANCE PROCUREMENT (PY)			(-26.8)		(-14.6)		(-26.3)	U
				197.5		210.7		211.0	
14	E-2C (EARLY WARNING) HAWKEYE (MYP) ADVANCE PROCUREMENT (CY)			28.5		36.3		38.0	U
	(FY 2004 FOR FY 2005) (MEMO)			(14.6)					
	(FY 2004 FOR FY 2006) (MEMO)			(7.0)					
	(FY 2004 FOR FY 2007) (MEMO)			(7.0)					
	(FY 2005 FOR FY 2006) (MEMO)					(19.3)			
	(FY 2005 FOR FY 2007) (MEMO)					(16.9)			
	(FY 2006 FOR FY 2007) (MEMO)							(38.0)	
TOTAL COMBAT AIRCRAFT				5,165.8		5,115.0		5,921.3	
TOTAL AIRCRAFT PROCUREMENT, NAVY				5,165.8		5,115.0		5,921.3	

DEPARTMENT OF THE NAVY
FY 2006 PROCUREMENT PROGRAM EXHIBIT P-1

APPROPRIATION: 1506N AIRCRAFT PROCUREMENT, NAVY DATE: FEBRUARY 2005

MILLIONS OF DOLLARS

LINE NO	ITEM NOMENCLATURE	IDENT CODE	FY 2004 QUANTITY	FY 2004 COST	FY 2005 QUANTITY	FY 2005 COST	FY 2006 QUANTITY	FY 2006 COST	SEC
	BUDGET ACTIVITY 02: AIRLIFT AIRCRAFT								
	AIRLIFT AIRCRAFT								
15	UC-35		4	30.9	2	15.9			U
16	C-40A	A	1	62.8	1	65.0		10.3	U
17	C-37	A	1	54.5	2	106.2			U
	TOTAL AIRLIFT AIRCRAFT			148.2		187.1		10.3	
	TOTAL AIRCRAFT PROCUREMENT, NAVY			148.2		187.1		10.3	

DEPARTMENT OF THE NAVY
FY 2006 PROCUREMENT PROGRAM EXHIBIT P-1

APPROPRIATION: 1506N AIRCRAFT PROCUREMENT, NAVY DATE: FEBRUARY 2005

LINE NO	ITEM NOMENCLATURE	IDENT CODE	FY 2004 QUANTITY	FY 2004 COST	FY 2005 QUANTITY	FY 2005 COST	FY 2006 QUANTITY	FY 2006 COST	SEC
			MILLIONS OF DOLLARS						
	BUDGET ACTIVITY 03: TRAINER AIRCRAFT								
	TRAINER AIRCRAFT								
18	T-48 (T-39 REPLACEMENT)	A		2.8					U
19	T-45TS (TRAINER) GOSHAWK	A	14	339.2	10	304.8	6	239.2	U
20	JPATS	A	2	24.1	2	17.0		2.4	U
	TOTAL TRAINER AIRCRAFT			366.1		321.8		241.7	
	TOTAL AIRCRAFT PROCUREMENT, NAVY			366.1		321.8		241.7	

DEPARTMENT OF THE NAVY
FY 2006 PROCUREMENT PROGRAM EXHIBIT P-1

APPROPRIATION: 1506N AIRCRAFT PROCUREMENT, NAVY DATE: FEBRUARY 2005

MILLIONS OF DOLLARS

LINE NO	ITEM NOMENCLATURE	IDENT CODE	FY 2004 QUANTITY	FY 2004 COST	FY 2005 QUANTITY	FY 2005 COST	FY 2006 QUANTITY	FY 2006 COST	SEC
	BUDGET ACTIVITY 04: OTHER AIRCRAFT								
	OTHER AIRCRAFT								
21	KC-130J	A		(36.7)	4	(319.1)	12	(1,138.1)	U
	LESS: ADVANCE PROCUREMENT (PY)					(-41.5)		(-45.4)	U
				36.7		277.6		1,092.7	
22	KC-130J ADVANCE PROCUREMENT (CY)			41.5		45.4			U
	(FY 2004 FOR FY 2005) (MEMO)			(41.5)					
	(FY 2005 FOR FY 2006) (MEMO)					(45.4)			
23	F-5	A	4	3.0	9	4.5	9	4.5	U
	TOTAL OTHER AIRCRAFT			81.2		327.4		1,097.3	
	TOTAL AIRCRAFT PROCUREMENT, NAVY			81.2		327.4		1,097.3	

Fiscal Year 2006 Budget Estimates
Budget Appendix Extract Language

AIRCRAFT PROCUREMENT, NAVY (APN)

For construction, procurement, production, modification, and modernization of aircraft, equipment, including ordnance, spare parts, and accessories therefor; specialized equipment; expansion of public and private plants, including the land necessary therefor, and such lands and interests therein, may be acquired, and construction prosecuted thereon prior to approval of title; and procurement and installation of equipment, appliances, and machine tools in public and private plants; reserve plant and Government and contractor-owned equipment layaway, **[**$8,912,042,000**]** *$10,517,126,000*, to remain available for obligation until September 30, **[**2007**]** *2008, of which $57,779,000 shall be available for the Navy Reserve and the Marine Corps Reserve. (10 U.S.C. 5013, 5063, 7201, 7341; Department of Defense Appropriations Act, 2005.)*

Program: *Air Combat Program*

Agency: *Department of Defense--Military*

Bureau: *Procurement*

Rating: *Moderately Effective*

Program Type: *Capital Assets and Service Acquisition*

Last Assessed: *2 years ago*

Key Performance Measures from Latest PART	Year	Target	Actual
Long-term Measure: Number of performance objectives for individual weapons systems unmet	2002	0	0
	2003	0	0
	2005	0	
	2006	0	
Long-term Measure: Percentage reduction in program costs	2002	<10%	4.1%
	2003	<10%	4.7%
	2005	<10%	
	2006	<10%	

Recommended Follow-up Actions	Status
Proposes that DoD refine methods for assessing the efficiency and effectiveness (or otherwise) of the overall air combat program in light of the needs of the 2001 QDR defense strategy and the global war on terrorism.	Action taken, but not completed

Update on Follow-up Actions:

Methods are being refined each year and, as a result, adjustments have been made to air combat programs. For example, during the last Program Review, DoD determined that, to be more effective in the Global War on Terror, air combat forces needed to improve their ability to operate from austere, dispersed bases. DoD then funded the required enhancements. In 2005 DoD plans to conduct a comprehensive review of its earlier assessment of air combat programs in light of the changing needs of the global war on terror. The scope of the Air Combat PART has changed; it no longer includes Army combat aviation programs. These programs will be included in a new PART, to be completed next year, that will assess land warfare programs.

Program Funding Level (in millions of dollars)

2004 Actual	2005 Estimate	2006 Estimate
13,904	14,537	14,559

CLASSIFICATION: **Unclassified**

BUDGET ITEM JUSTIFICATION SHEET
P-40

DATE: **FEBRUARY 2005**

APPROPRIATION/BUDGET ACTIVITY
Aircraft Procurement, Navy **Budget Activity 1**

P-1 ITEM NOMENCLATURE
AV-8B Remanufacture (MYP)

Program Element for Code B Items:

Other Related Program Elements

	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Program
QUANTITY	74											74
Net P-1 Cost ($M)	1,877.677	A	12.356	4.641	1.707							1,896.381
Advance Proc ($M)	189.016	A										189.016
Wpn Sys Cost ($M)	2,066.692	A	12.356	4.641	1.707							2,085.396
Initial Spares ($M)	83.426	A										83.426
Proc Cost ($M)	2,150.118		12.356	4.641	1.707							2,168.822
Unit Cost ($M)	29.056											29.308

Description:

MISSION: The AV-8B meets the Marine Corps requirements for a light attack aircraft to provide responsive offensive air power that can operate from austere forward bases in direct support of ground forces.

DESCRIPTION: The AV-8B Remanufacture program converts older AV-8B day attack configured aircraft to the most recent production radar/night attack Harrier II Plus configuration. The AV-8B (Harrier II) is a second generation, vertical/short takeoff and landing (V/STOL), light attack jet aircraft utilized by the USMC. The AV-8B is a responsive, versatile, and dispersible aircraft capable of being operated from air-capable ships and/or ashore in support of marine operations. FY03 through FY06 funding will implement shutdown actions that will purposefully preserve elements essential to regenerating T/AV-8B products or services while allowing the current production activities to cease. This effort will identify the tooling, special test equipment and data required to support sustainment capabilities in manufacturing and fabrication processes.

BASIS FOR REQUEST: $1.707 million is requested in FY 2006 for AV-8B Production Line Shutdown/Transition.

CLASSIFICATION: **Unclassified**

Date: February-05

AIRCRAFT COST ANALYSIS P-5 Cost Sheet

$ in thousands

Aircraft model: AV-8B

			FY 2004		FY 2005		FY 2006		FY 2007	
		Prior Years	Qty:	0	Qty:	0	Qty:	0	Qty:	0
		Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost
1	Airframe CFE	1,231,803.088	0	0	0	0	0	0	0	0
2	CFE Electronics	0	0	0	0	0	0	0	0	0
3	GFE Electronics	46,097.891	0	0	0	0	0	0	0	0
4	Engines/Eng Acc	292,022.692	0	0	0	0	0	0	0	0
5	Armament	0	0	0	0	0	0	0	0	0
6	Other GFE	57,430.399	0	0	0	0	0	0	0	0
7	Rec Flyaway ECO	0	0	0	0	0	0	0	0	0
8	Rec Flyaway Cost	1,627,354.070	0	0	0	0	0	0	0	0
9	Non-Recur Cost	36,719.623		11,758.000		4,113.000		1,557.000		0
10	Ancillary Equip	0		0		0		0		0
11										
12	Total Flyaway	1,664,073.693	0	11,758.000	0	4,113.000	0	1,557.000	0	0
13	Airframe PGSE	48,780.009		0		0		0		0
14	Engine PGSE	8,972.920		0		0		0		0
15	Avionics PGSE	93,083.810		0		0		0		0
16	Pec Trng Eq	55,062.301		0		0		0		0
17	Pub/Tech Eq	21,451.645		0		0		0		0
18	Prod Eng Supt	122,617.598		598.000		528.000		150.000		0
19	ILS/REL Dem	52,650.312		0		0		0		0
20				0		0				
21	Support Cost	402,618.594		598.000		528.000		150.000		0
22	Gross P-1 Cost	2,066,692.286		12,356.000		4,641.000		1,707.000		0
23	Adv Proc Credit	-189,015.603		0		0		0		0
24	Net P-1 Cost	1,877,676.684		12,356.000		4,641.000		1,707.000		0
25	Adv Proc CY	189,015.603		0		0		0		0
26	Weapon System Cost	2,066,692.286		12,356.000		4,641.000		1,707.000		0
27	Initial Spares	83,426.000	P-1 SH	0		0		0		0
28	Procurement Cost	2,150,118.286		12,356.000		4,641.000		1,707.000		0

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: FEBRUARY 2005	
APPROPRIATION/BUDGET ACTIVITY: **Aircraft Procurement, Navy/ Combat Aircraft, (BA-1)**						P-1 ITEM NOMENCLATURE: **EA-18G**						
Program Element for Code B Items: **0604269N**						Other Related Program Elements: **0204136N, 0604270N**						
	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Program
QUANTITY	0		0	0	4	12	18	22	20	14	0	90
Net P-1 Cost ($M)	$0.000	B	$0.000	$0.000	$310.175	$851.879	$1,259.197	$1,581.031	$1,444.979	$1,083.602	$0.000	$6,530.863
Advance Proc ($M)	$0.000	B	$0.000	$8.211	$26.486	$39.628	$49.092	$46.302	$24.466	$0.000	$0.000	$194.185
Wpn Sys Cost ($M)	$0.000	B	$0.000	$8.211	$336.661	$891.507	$1,308.289	$1,627.333	$1,469.445	$1,083.602	$0.000	$6,725.048
Initial Spares ($M)	$0.000	B	$0.000	$0.000	$4.202	$12.345	$11.745	$17.534	$16.786	$12.982	$0.000	$75.594
Proc Cost ($M)	$0.000	B	$0.000	$8.211	$340.863	$903.852	$1,320.034	$1,644.867	$1,486.231	$1,096.584	$0.000	$6,800.642
Unit Cost ($M)					$85.216	$75.321	$73.335	$74.767	$74.312	$78.327	$0.000	$75.563

DESCRIPTION:
The EA-18G is designed to replace the EA-6B aircraft. The EA-18G's electronic attack upgrades will meet EA-6B (with ALQ-218, ALQ-99, CSS-113) Airborne Electronic Attack (AEA) capability to detect, identify, locate and suppress hostile emitters; provide enhanced connectivity to National, Theater and strike assets; and provide organic precision emitter targeting for employment of onboard suppression weapons (HARM) to fulfill operational requirements. The EA-18G will have the capability to operate autonomously or as a major node in a network centric operation. The performance of the aircraft is compatible with the primary strike/fighter aircraft projected to be in the inventory in the 2010 time period, allowing it to be fully integrated into specific strike packages. It will also have the capacity to provide broad area coverage for extended periods of time to support numerous strikes or other air operations in a federated context. The EA-18G is a scaleable, flexible solution that facilitates "Task Organized" force structures. The task organized force structures employ adequate forces to accomplish a specific task while maintaining the operation and personnel tempo at acceptable levels. The EA-18G is being designed to perform a range of Electronic Warfare/Electronic Attack functions either simultaneously or independently. The man in the loop operation and advanced information display system will allow real time assessment of the tactical situation and the appropriate response executed in accordance with the rules of engagement.

BASIS FOR FY 2006 BUDGET REQUEST:
Funding is requested to procure 4 EA-18Gs in FY 2006. This is the second year of a planned five year (FY2005-2009) multiyear procurement (MYP) based on an aircraft quantity of 210, which includes 154 F/A-18E/Fs in FY2005-2009 (not reflected in this budget line) and 56 EA-18Gs in FY2006-FY2009. This MYP contract is currently funded at the minimum yearly quantity of 42 aircraft per year. The contract has a variation quantity clause permitting an additional 6 aircraft per year. This contract is projected to yield savings/cost avoidance of $1.052B (10.95%) over a single year procurement strategy.

The EPA clause incorporates adjustments to aircraft prices between the baseline (first quarter calendar year (CY) 2003 Global Insight cost planner) and the applicable forecasted annual indices for each program year (CY 2006 for program year FY05). Price adjustments are made only if the current forecasted composite escalation indices are greater than +/- one percent of the baseline index. Due to various contributing factors (international economic growth, increased demand for raw materials, U.S. government titanium protections, etc.), an EPA cost adjustment has been applied to the MYP budget for FY05-FY09. This budget submission reflects changes driven by the most current contractual indices; the magnitude of the FY06 change to the MYP is approximately $46M.

The EA-18G Program will procure assets using the MYP contract vehicle once the Milestone Decision Authority (MDA) grants approval at each milestone. If the MDA does not approve the EA-18G procurement as currently scheduled, the Navy will continue to procure 42 F/A-18E/F aircraft in each year to maintain the MYP minimum requirements. Since the EA-18G will be a modified F/A-18F, some support costs are common and are more efficiently executed out of one budget line. These common costs are budgeted in the F/A-18E/F budget line.

FY 2006 is also the fifth year of a five year (FY2002-2006) engine MYP, which does not include EOQ funding.

For reference, the procurement quantity planned by fiscal year for the Airframe MYP is:

	2005	2006	2007	2008	2009
F/A-18E/F	42	38	30	24	20
EA-18G	0	4	12	18	22
Total MYP	42	42	42	42	42

Exhibit P-5 Cost Analysis (Page 1)	Weapon System: **EA-18G**	DATE: **FEBRUARY 2005**
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy/ Combat Aircraft, (BA-1)**	ID Code **B**	P-1 ITEM NOMENCLATURE/SUBHEAD **EA-18G / Y1CH**

COST CODE	ELEMENT OF COST	TOTAL COST IN DOLLARS								
		Prior Years	FY 2004		FY 2005		FY 2006		FY 2007	
		Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost
	Quantity	0		0		0		4		12
1	Airframe/CFE	0.000	0.000	0.000	0.000	0.000	36,247.098	144,988.393	36,709.924	440,519.090
2	CFE Electronics	0.000	0.000	0.000	0.000	0.000	14,521.406	58,085.625	14,846.236	178,154.828
3	GFE Electronics	0.000	0.000	0.000	0.000	0.000	2,353.606	9,414.425	2,399.679	28,796.149
4	Engines/Eng Acc	0.000	0.000	0.000	0.000	0.000	7,738.061	30,952.243	8,170.725	98,048.698
5	Armament	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6	Other GFE	0.000	0.000	0.000	0.000	0.000	642.352	2,569.410	663.345	7,960.140
7	Rec Flyaway ECO	0.000	0.000	0.000	0.000	0.000	1,015.370	4,061.480	1,031.123	12,373.478
8	Rec Flyaway Cost	0.000	0.000	0.000	0.000	0.000	62,517.894	250,071.576	63,821.032	765,852.383
9	Non-Recur Cost	0.000		0.000		0.000		19,529.810		9,260.624
10	Ancillary Equip	0.000		0.000		0.000		10,197.453		32,225.241
11	Other	0		0		0		0		0
12	Total Flyaway	0.000		0.000		0.000		279,798.839		807,338.249
13	Airframe PGSE	0.000		0.000		0.000		9,311.853		6,573.785
14	Engine PGSE	0.000		0.000		0.000		2,354.941		309.430
15	Avionics PGSE	0.000		0.000		0.000		1,023.333		7,530.747
16	Pec Trng Eq	0.000		0.000		0.000		17,948.981		44,390.169
17	Pub/Tech Eq	0.000		0.000		0.000		2,884.341		3,620.307
18	Prod Eng Supt	0.000		0.000		0.000		1,027.740		3,196.809
19	Other ILS	0.000		0.000		0.000		4,035.973		5,405.504
20		0		0		0		0		0
21	Support Cost	0.000		0.000		0.000		38,587.162		71,026.751
22	Gross P-1 Cost	0.000		0.000		0.000		318,386.000		878,365.000
23	Adv Proc Credit	0.000		0.000		0.000		-8,211.000		-26,486.000
24	Net P-1 Cost	0.000		0.000		0.000		310,175.000		851,879.000
25	Adv Proc CY	0.000		0.000		8,211.000		26,486.000		39,628.000
26	Wpn Syst Cost	0.000		0.000		8,211.000		336,661.000		891,507.000
27	Initial Spares	0.000		0.000		0.000		4,202.000		12,345.000
28	**Procurement Cost**	0.000		0.000		8,211.000		340,863.000		903,852.000

Note: FY05-FY09 is based on a follow-on multiyear procurement with $100M CRI Investment in FY04 and a total aircraft quantity of 210, which includes F/A-18E/F and EA-18G (F/A-18E/F aircraft are not reflected in this budget line).

CLASSIFICATION: **UNCLASSIFIED**

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System **EA-18G**		**A. DATE** **FEBRUARY 2005**			
B. APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy/ Combat Aircraft, (BA-1)**					**C. P-1 ITEM NOMENCLATURE** **EA-18G**				**SUBHEAD** **Y1CH**	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST ($000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	TECH DATA AVAILABLE NOW ?	DATE REVISIONS AVAILABLE
AIRFRAME/CFE										
FY 2005 for FY 2006 AP			NAVAIR	N/A	MYP/SS/FFP/EPA	MDA, St Louis, MO	Nov-04		Yes	
FY 2006	4	50,768.504	NAVAIR	N/A	MYP/SS/FFP/EPA	MDA, St Louis, MO	Nov-05	Oct-07	Yes	
FY 2006 for FY 2007 AP			NAVAIR	N/A	MYP/SS/FFP/EPA	MDA, St Louis, MO	Nov-05		Yes	
FY 2007	12	51,556.160	NAVAIR	N/A	MYP/SS/FFP/EPA	MDA, St Louis, MO	Nov-06	Oct-08	Yes	
FY 2007 for FY 2008 AP			NAVAIR	N/A	MYP/SS/FFP/EPA	MDA, St Louis, MO	Nov-06		Yes	

D. REMARKS

FY 2006 pricing is based on a FY 2005-2009 Multi-Year Procurement.
FY 2006 Advance Procurement is for long-lead material and Termination Liability only. No Economic Order Quantity funding is requested.

CLASSIFICATION: **UNCLASSIFIED**

CLASSIFICATION: **UNCLASSIFIED**

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System: EA-18G		A. DATE: FEBRUARY 2005			
B. APPROPRIATION/BUDGET ACTIVITY: Aircraft Procurement, Navy/ Combat Aircraft, (BA-1)					C. P-1 ITEM NOMENCLATURE: EA-18G				SUBHEAD: Y1CH	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST ($000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	TECH DATA AVAILABLE NOW ?	DATE REVISIONS AVAILABLE
F-414-GE-400 ENGINE (2 PER A/C)										
FY05 for FY06 AP			NAVAIR	N/A	MYP/SS/FFP	G.E. LYNN, MA	Jun-05		Yes	
FY2006	8	3,869.030	NAVAIR	N/A	MYP/SS/FFP	G.E. LYNN, MA	Jun-06	Jun-07	Yes	
FY06 for FY07 AP			NAVAIR	Feb-05	SS/FFP	G.E. LYNN, MA	Jun-06		Yes	
FY2007	24	4,085.362	NAVAIR	TBD	SS/FFP	G.E. LYNN, MA	Jun-07	Jun-08	Yes	
FY07 for FY08 AP			NAVAIR	TBD	SS/FFP	G.E. LYNN, MA	Jun-07		Yes	

D. REMARKS

Pricing is based on a FY 2002-2006 Multi-Year Procurement. FY 2007 is priced as a single year procurement.

FY 2006 and FY2007 Advance Procurement is for long-lead material and Termination Liability only. No Economic Order Quantity funding is requested.

PRODUCTION SCHEDULE, P-21					Date **FEBRUARY 2005**
Appropriation/Budget Activity		Weapon System	P-1 Item Nomenclature		
Aircraft Procurement, Navy/ Combat Aircraft, (BA-1)		**EA-18G**	**EA-18G**		
		PRODUCTION RATE	Procurement Leadtimes		

Item	Manufacturer's Name and Location	MSR	ECON	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
EA-18G	McDonnell Douglas Aerospace	**42**	**48**	**72**	**0**	**2**	**33**	**35**	**37**	**E**
	McDonnell Douglas Corp. (Boeing)									
	St. Louis, MO. 63165									

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2008												FISCAL YEAR 2009												BAL
						2007			CALENDAR YEAR 2008									CALENDAR YEAR 2009												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
E/A-18G	06	N	4	0	4	3	1																						0
E/A-18G	07	N	12	0	12													1	1	1	1	1	1	1	1	1	1	1	1	0

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2010												FISCAL YEAR 2011												BAL
						2009			CALENDAR YEAR 2010									CALENDAR YEAR 2011												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Remarks:

Note (1): Planned procurement of 4 EA-18G aircraft in FY 2006 will deliver in FY 2008. This brings the yearly contractual procurement under the MYP to 42 aircraft.

Note (2): Planned procurement of 12 EA-18G aircraft in FY 2007 will deliver in FY 2009. This brings the yearly contractual procurement under the MYP to 42 aircraft.

PRODUCTION SCHEDULE, P-21					Date **FEBRUARY 2005**					
Appropriation/Budget Activity **Aircraft Procurement, Navy/ Combat Aircraft, (BA-1)**			Weapon System **EA-18G**		P-1 Item Nomenclature **EA-18G**					
		PRODUCTION RATE			Procurement Leadtimes					
Item	Manufacturer's Name and Location	MSR	ECON	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
F414-GE-400 ENGINE	**GENERAL ELECTRIC CO**	**84**	**120**	**144**	**0**	**9**	**27**	**24**	**33**	**E**
(EA-18G AIRCRAFT)	**LYNN, MA**									

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2007												FISCAL YEAR 2008												BAL
						2006			CALENDAR YEAR 2007									CALENDAR YEAR 2008												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
F414-GE-400 Installs	06	N	8	0	8									7	1															0
F414-GE-400 Installs	07	N	24	0	24																					2	2	2	2	16

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2009												FISCAL YEAR 2010												BAL
						2008			CALENDAR YEAR 2009									CALENDAR YEAR 2010												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
F414-GE-400 Installs	07	N	24	8	16	2	2	2	2	2	2	2	2																	0

Remarks: Beginning in FY 2006, engines for EA-18G and Spares are procured with F/A-18E/F install engines on the same contract. This exhibit depicts EA-18G installs only.

BUDGET ITEM JUSTIFICATION SHEET **P-40**							DATE: **FEBRUARY 2005**					
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy/ Combat Aircraft, (BA-1)**							P-1 ITEM NOMENCLATURE **EA-18G ADVANCE PROCUREMENT (MYP)**					
Program Element for Code B items: **0604269N**							Other Related Program Elements **0204136N, 0604270N**					
	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
COST (In Millions)	**$0.000**	**B**	**$0.000**	**$8.211**	**$26.486**	**$39.628**	**$49.092**	**$46.302**	**$24.466**	**$0.000**	**$0.000**	**$194.185**

DESCRIPTION:
The EA-18G is designed to replace the EA-6B aircraft. The EA-18G's electronic attack upgrades will meet EA-6B (with LR-700, ALQ-99, USQ-113) Airborne Electronic Attack (AEA) capability to detect, identify, locate and suppress hostile emitters; provide enhanced connectivity to National, Theater and strike assets; and provide organic precision emitter targeting for employment of onboard suppression weapons (HARM) to fulfill operational requirements. The EA-18G will have the capability to operate autonomously or as a major node in a network centric operation. The performance of the aircraft is compatible with the primary strike/fighter aircraft projected to be in the inventory in the 2010 time period, allowing it to be fully integrated into specific strike packages. It will also have the capacity to provide broad area coverage for extended periods of time to support numerous strikes or other air operations in a federated context. The EA-18G is a scaleable, flexible solution that facilitates "Task Organized" force structures. The task organized force structures employ adequate forces to accomplish a specific task while maintaining the operation and personnel tempo at acceptable levels. The EA-18G is being designed to perform a range of Electronic Warfare/Electronic Attack functions either simultaneously or independently. The man in the loop operation and advanced information display system will allow real time assessment of the tactical situation and the appropriate response executed in accordance with the rules of engagement.

BASIS FOR FY 2006 BUDGET REQUEST:
Funding is requested to procure long-lead material for 12 EA-18Gs in FY 2007. This is the second year of a planned five year (FY2005-2009) multiyear procurement (MYP) based on an aircraft quantity of 210, which includes 154 F/A-18E/Fs in FY2005-2009 (not reflected in this budget line) and 56 EA-18Gs in FY2006-FY2009. This MYP contract is currently funded at the minimum yearly quantity of 42 aircraft per year. The contract has a variation quantity clause permitting an additional 6 aircraft per year. This contract is projected to yield savings/cost avoidance of $1.052B (10.95%) over a single year procurement strategy. The EA-18G Program will procure assets using the MYP contract vehicle once the Milestone Decision Authority (MDA) grants approval at each milestone. If the MDA does not approve the EA-18G procurement as currently scheduled, the Navy will continue to procure 42 F/A-18E/F aircraft in each year to maintain the MYP minimum requirements. Advance procurement contracting, which is not currently necessary for unique EA-18G requirements, is necessary for the procurement of long-lead items needed to support airframe production.

Exhibit P-10 Advance Procurement Requirements Analysis (Page 1 - Funding)													Date: **FEBRUARY 2005**
Appropriation (Treas) Code/CC/BA/BSA/Item Control Number **Aircraft Procurement, Navy/APN-1, Fighter/Attack Aircraft**													P-1 Line Item Nomenclature **EA-18G ADVANCE PROCUREMENT (MYP)**
Weapon System **EA-18G**					First System (BY1) Award Date Nov-04								Interval between Systems **1 1/2 Weeks**
($ in Millions)													
	PLT	When Rqd	Prior Years	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
End Item Qty			0	0	0	4	12						
CFE- Airframe T.L.	35		0.0	0.0	6.4	20.8	31.1						
GFE - F414 Eng.- T.L.	0		0.0	0.0	1.7	5.4	8.1						
GFE - Other	Var.	Var.	0.0	0.0	0.1	0.3	0.5						
Total AP			0.0	0.0	8.2	26.5	39.6						

NARRATIVE DESCRIPTION:

This line item funds long-lead requirements for the EA-18G production program. Airframe /CFE and engine requirements are calculated on a termination liability basis through 31 October of the following fiscal year, reflecting the contractor's funding requirements for the procurement of long-lead parts and material necessary to protect the delivery schedule. Other Government Furnished Equipment (GFE) requirements are determined on a fully loaded basis, procuring the long-lead quantity needed to protect the production schedule.

CLASSIFICATION:

UNCLASSIFIED

Exhibit P-10 Advance Procurement Requirements Analysis (Page 2 - Budget Justification)							Date: **FEBRUARY 2005**		
Appropriation (Treasury) Code/CC/BA/BSA/Item Control Number **Aircraft Procurement, Navy/APN-1, Fighter/Attack Aircraft**				Weapon System **EA-18G**			P-1 Line Item Nomenclature **EA-18G ADVANCE PROCUREMENT (MYP)**		
(TOA, $ in Millions)									
	PLT	QPA	Unit Cost	FY 2005 for FY 2006 Qty	FY 2005 Contract Forecast Date	FY 2005 Total Cost Request	FY 2006 for FY 2007 Qty	FY 2006 Contract Forecast Date	FY 2006 Total Cost Request
End Item		N/A							
Long Lead-Airframe	35		N.A.	T.L. for 4	Nov-04	6.4	T.L. for 12	Nov-05	20.8
GFE - Engine - T.L.	24		N.A.	T.L. for 8	Jun-05	1.7	T.L. for 24	Jun-06	5.4
GFE - Other	Var.	Var.	N.A.	Var.	Var.	0.1	Var.	Var.	0.3
Total AP						8.2			26.5

Description:

BUDGET ITEM JUSTIFICATION SHEET
P-40

DATE: **FEBRUARY 2005**

APPROPRIATION/BUDGET ACTIVITY
Aircraft Procurement, Navy/ Combat Aircraft, (BA-1)

P-1 ITEM NOMENCLATURE
F/A-18E/F (FIGHTER) HORNET (MYP)

Program Element for Code B Items:
0204136N

Other Related Program Elements
0604269N, 0305207N, 0604270N

	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Program
QUANTITY	230		42	42	38	30	24	20	22	14	0	462
Net P-1 Cost ($M)	$18,003.990	A	$2,959.908	$2,896.225	$2,736.230	$2,281.204	$1,999.327	$1,751.420	$1,782.462	$1,558.971	$0.000	$35,969.737
Advance Proc ($M)	$1,099.590	A	$84.009	$83.084	$86.105	$52.788	$44.685	$51.082	$24.465	$0.000	$0.000	$1,525.808
Wpn Sys Cost ($M)	$19,103.580	A	$3,043.917	$2,979.309	$2,822.335	$2,333.992	$2,044.012	$1,802.502	$1,806.927	$1,558.971	$0.000	$37,495.545
Initial Spares ($M)	$681.113	A	$150.720	$36.374	$57.260	$0.909	$1.089	$0.797	$0.841	$0.598	$0.000	$929.701
Proc Cost ($M)	$19,784.693	A	$3,194.637	$3,015.683	$2,879.595	$2,334.901	$2,045.101	$1,803.299	$1,807.768	$1,559.569	$0.000	$38,425.246
Unit Cost ($M)			$76.063	$71.802	$75.779	$77.830	$85.213	$90.165	$82.171	$111.398	$0.000	$83.172

DESCRIPTION:
The F/A-18E/F Naval Strike Fighter is a twin-engine, mid-wing, multi-mission tactical aircraft. F/A-18E/F can be missionized through selected use of external equipment to accomplish specific fighter or attack missions. This capability allows the Operational Commander more flexibility in employing his tactical aircraft in a dynamic scenario. The primary design mission for the F/A-18E/F is a strike fighter which includes the traditional applications, such as fighter escort and fleet air defense, combined with the attack applications, such as interdiction and close air support. Since the same airframe systems are used on attack missions as well as fighter missions, excellent fighter and self defense capability is retained.

Since the EA-18G will be a modified F/A-18F, some support costs are common and are more efficiently executed out of one budget line. These common costs are budgeted in the F/A-18E/F budget line.

BASIS FOR FY 2006 BUDGET REQUEST:
Funding is requested to procure 38 F/A-18E/F aircraft in FY 2006. This is the second year of a planned five year (FY 2005-2009) multiyear procurement (MYP) based on an aircraft quantity of 210, which includes 154 F/A-18E/Fs in FY 2005-2009 and 56 EA-18Gs in FY 2006-2009 (not reflected in this budget line). This MYP contract is currently funded at the minimum yearly quantity of 42 aircraft per year. The contract has a variation in quantity clause permitting an additional 6 aircraft per year and an Economic Price Adjustment (EPA) clause. This contract is projected to yield savings/cost avoidance of $1.052B (10.95%) over a single year procurement strategy.

The EPA clause incorporates adjustments to aircraft prices between the baseline (first quarter calendar year (CY) 2003 Global Insight cost planner) and the applicable forecasted annual indices for each program year (CY 2006 for program year FY05). Price adjustments are made only if the current forecasted composite escalation indices are greater than +/- one percent of the baseline index. Due to various contributing factors (international economic growth, increased demand for raw materials, U.S. government titanium protections, etc.), an EPA cost adjustment has been applied to the MYP budget for FY05-FY09. This budget submission reflects changes driven by the most current contractual indices; the magnitude of the FY06 change to the MYP is approximately $46M.

The EA-18G Program will procure assets using the MYP contract vehicle once the Milestone Decision Authority (MDA) grants approval at each milestone. If the MDA does not approve the EA-18G procurement as currently scheduled, the Navy will continue to procure 42 F/A-18E/F aircraft in each year to maintain the MYP minimum requirements. Since the EA-18G will be a modified F/A-18F, some support costs are common and are more efficiently executed out of one budget line. These common costs are budgeted in the F/A-18E/F budget line.

For reference, the procurement quantity planned by fiscal year for the Airframe MYP is:

	2005	2006	2007	2008	2009
F/A-18E/F	42	38	30	24	20
EA-18G	0	4	12	18	22
Total MYP	42	42	42	42	42

CLASSIFICATION: **UNCLASSIFIED**

Exhibit P-5 Cost Analysis (Page 1)	Weapon System: **F/A-18E/F**	DATE: **FEBRUARY 2005**
APPROPRIATION/BUDGET ACTIVITY: **Aircraft Procurement, Navy/ Combat Aircraft, (BA-1)**	ID Code: **A**	P-1 ITEM NOMENCLATURE/SUBHEAD: **F/A-18E/F (FIGHTER) HORNET (MYP)/Y1CF**

COST CODE	ELEMENT OF COST	TOTAL COST IN DOLLARS								
		Prior Years	FY 2004		FY 2005		FY 2006		FY 2007	
		Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost
	Quantity	230		42		42		38		30
1	Airframe/CFE	10,317,985.343	36,863.678	1,548,274.481	37,232.439	1,563,762.456	36,264.204	1,378,039.733	36,737.098	1,102,112.926
2	CFE Electronics	1,246,883.073	5,214.936	219,027.326	5,198.010	218,316.404	5,389.785	204,811.832	5,620.228	168,606.842
3	GFE Electronics	605,047.029	3,253.038	136,627.600	3,486.970	146,452.756	3,439.690	130,708.208	3,584.550	107,536.497
4	Engines/Eng Acc	1,980,148.569	7,645.317	321,103.315	7,679.932	322,557.143	7,738.061	294,046.312	8,170.725	245,121.746
5	Armament	32,732.483	232.243	9,754.206	237.120	9,959.044	238.766	9,073.124	244.877	7,346.316
6	Other GFE	107,207.302	527.547	22,156.984	536.773	22,544.464	466.705	17,734.789	534.488	16,034.654
7	Rec Flyaway ECO	269,802.357	841.477	35,342.020	848.605	35,641.411	833.080	31,657.031	847.147	25,414.395
8	Rec Flyaway Cost	14,559,806.155	54,578.236	2,292,285.931	55,219.849	2,319,233.679	54,370.290	2,066,071.030	55,739.113	1,672,173.376
9	Non-Recur Cost	843,791.504		167,973.101		67,272.435		43,033.194		23,151.561
10	Ancillary Equip	902,021.100		267,629.504		273,077.574		264,875.499		217,238.794
11	Other	0		0		0		0		0
12	Total Flyaway	16,305,618.759		2,727,888.536		2,659,583.687		2,373,979.723		1,912,563.731
13	Airframe PGSE	230,027.233		15,782.818		5,299.041		12,515.683		16,864.445
14	Engine PGSE	94,589.693		6,147.917		1,909.834		6,828.638		6,980.720
15	Avionics PGSE	214,866.927		44,538.150		13,788.420		30,959.480		38,173.117
16	Pec Trng Eq	407,871.678		31,609.267		31,206.519		68,547.417		50,366.969
17	Pub/Tech Eq	256,406.295		23,493.938		21,446.988		25,382.229		22,203.885
18	Prod Eng Supt	874,594.609		118,786.693		146,560.282		205,389.634		221,058.768
19	Other ILS	611,966.806		99,298.681		100,439.229		95,711.197		88,144.366
20		0		0		0		0		0
21	Support Cost	2,690,323.241		339,657.464		320,650.313		445,334.277		443,792.269
22	Gross P-1 Cost	18,995,942.000		3,067,546.000		2,980,234.000		2,819,314.000		2,356,356.000
23	Adv Proc Credit	-991,952.088		-107,638.000		-84,009.000		-83,084.000		-75,152.000
24	Net P-1 Cost	18,003,989.912		2,959,908.000		2,896,225.000		2,736,230.000		2,281,204.000
25	Adv Proc CY	1,099,590.088		84,009.000		83,084.000		86,105.000		52,788.000
26	Wpn Syst Cost	19,103,580.000		3,043,917.000		2,979,309.000		2,822,335.000		2,333,992.000
27	Initial Spares	681,113.000		150,720.000		36,374.000		57,260.000		909.000
28	**Procurement Cost**	19,784,693.000		3,194,637.000		3,015,683.000		2,879,595.000		2,334,901.000

Note: FY05-FY09 is based on a follow-on multiyear procurement with $100M CRI Investment in FY04 and a total aircraft quantity of 210, which includes F/A-18E/F and EA-18G (not reflected in this budget line).

CLASSIFICATION: **UNCLASSIFIED**

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)						Weapon System: F/A-18E/F		A. DATE: FEBRUARY 2005		
B. APPROPRIATION/BUDGET ACTIVITY: Aircraft Procurement, Navy/ Combat Aircraft, (BA-1)					C. P-1 ITEM NOMENCLATURE: F/A-18E/F (FIGHTER) HORNET (MYP)				SUBHEAD: Y1CF	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST ($000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	TECH DATA AVAILABLE NOW ?	DATE REVISIONS AVAILABLE
AIRFRAME/CFE										
FY 2004	42	42,078.614	NAVAIR	N/A	MYP/SS/FPIF	MDA, St Louis, MO	Nov-03	Oct-05	Yes	
FY 2004 for FY 2005 AP			NAVAIR	N/A	MYP/SS/FFP/EPA	MDA, St Louis, MO	Nov-03		Yes	
FY 2005	42	42,430.449	NAVAIR	N/A	MYP/SS/FFP/EPA	MDA, St Louis, MO	Nov-04	Oct-06	Yes	
FY 2005 for FY 2006 AP			NAVAIR	N/A	MYP/SS/FFP/EPA	MDA, St Louis, MO	Nov-04		Yes	
FY 2006	38	41,653.989	NAVAIR	N/A	MYP/SS/FFP/EPA	MDA, St Louis, MO	Nov-05	Nov-07 (1)	Yes	
FY 2006 for FY 2007 AP			NAVAIR	N/A	MYP/SS/FFP/EPA	MDA, St Louis, MO	Nov-05		Yes	
FY 2007	30	42,357.326	NAVAIR	N/A	MYP/SS/FFP/EPA	MDA, St Louis, MO	Nov-06	Oct-08	Yes	
FY 2007 for FY 2008 AP			NAVAIR	N/A	MYP/SS/FFP/EPA	MDA, St Louis, MO	Nov-06		Yes	

D. REMARKS

Note (1): Planned procurement of 4 EA-18G aircraft in FY2006 will deliver in the first quarter of FY 2008 as shown in EA-18G APN-1 budget.

FY 2006 pricing is based on a FY 2005-2009 Multi-Year Procurement.

FY 2006 Advance Procurement is for long-lead material and Termination Liability only. No Economic Order Quantity funding is requested.

CLASSIFICATION:

UNCLASSIFIED

CLASSIFICATION: **UNCLASSIFIED**

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System: F/A-18E/F		A. DATE: FEBRUARY 2005			
B. APPROPRIATION/BUDGET ACTIVITY: Aircraft Procurement, Navy/ Combat Aircraft, (BA-1)					C. P-1 ITEM NOMENCLATURE: F/A-18E/F (FIGHTER) HORNET (MYP)				SUBHEAD: Y1CF	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST ($000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	TECH DATA AVAILABLE NOW ?	DATE REVISIONS AVAILABLE
F-414-GE-400 ENGINE (2 PER A/C)										
FY 2004	84	3,822.659	NAVAIR	N/A	MYP/SS/FFP	G.E. LYNN, MA	Mar-04	Jun-05	Yes	
FY 2004 for FY 2005 AP			NAVAIR	N/A	MYP/SS/FFP	G.E. LYNN, MA	Mar-04		Yes	
FY 2005	84	3,839.966	NAVAIR	N/A	MYP/SS/FFP	G.E. LYNN, MA	Jun-05	Jun-06	Yes	
FY 2005 for FY 2006 AP			NAVAIR	N/A	MYP/SS/FFP	G.E. LYNN, MA	Jun-05		Yes	
FY 2006	76	3,869.030	NAVAIR	N/A	MYP/SS/FFP	G.E. LYNN, MA	Jun-06	Jul-07 (1)	Yes	
FY 2006 for FY 2007 AP			NAVAIR	Feb-05	SS/FFP	G.E. LYNN, MA	Jun-06		Yes	
FY 2007	60	4,085.362	NAVAIR	TBD	SS/FFP	G.E. LYNN, MA	Jun-07	Jun-08	Yes	
FY 2007 for FY 2008 AP			NAVAIR		SS/FFP	G.E. LYNN, MA	Jun-07		Yes	

D. REMARKS

Note (1): Pricing is based on a FY 2002-2006 Multi-Year Procurement. FY 2007 is priced as a single year procurement.
FY 2006 Advance Procurement is for long-lead material and Termination Liability only. No Economic Order Quantity funding is requested.
Planned procurement of EA-18G engines in FY 2006 will deliver in June 2007 as shown in EA-18G APN-1 budget.

CLASSIFICATION: **UNCLASSIFIED**

BUDGET PRODUCTION SCHEDULE, P-21						Date FEBRUARY 2005	
Appropriation/Budget Activity			Weapon System		P-1 Item Nomenclature		
Aircraft Procurement, Navy/ Combat Aircraft, (BA-1)			F/A-18E/F		F/A-18E/F (FIGHTER) HORNET (MYP)		
		PRODUCTION RATE			Procurement Leadtimes		
Item	Manufacturer's Name and Location	MSR	ECON	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
F/A-18E/F	McDonnell Douglas Aerospace	42	48	72	0	2	33	35	37	E
	McDonnell Douglas Corp. (Boeing)									
	St. Louis, MO. 63165									

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2005												FISCAL YEAR 2006												BAL
						2004			CALENDAR YEAR 2005									CALENDAR YEAR 2006												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
F/A-18E	03	N	12	0	12	1	1	1	1	1	1	1	1	1	1	1	1													0
F/A-18F	03	N	33	0	33	3	3	3	3	3	2	2	3	3	3	2	3													0
F/A-18E	04	N	15	0	15													1	1	1	1	1	1	2	1	2	1	1	2	0
F/A-18F	04	N	27	0	27													2	2	3	2	3	2	2	2	2	2	3	2	0

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2007												FISCAL YEAR 2008												BAL
						2006			CALENDAR YEAR 2007									CALENDAR YEAR 2008												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
F/A-18E	05	N	15	0	15	1	1	2	2	1	1	2	1	1	1	1	1													0
F/A-18F	05	N	27	0	27	2	2	2	2	2	3	2	2	2	3	2	3													0
F/A-18E	06	N	25	0	25														2	3	2	2	2	3	2	2	2	3	2	0
F/A-18F	06	N	13	0	13														1	1	1	2	1	1	1	2	1	1	1	0
Note 1																														

Remarks:

Note 1: Planned procurement of 4 EA-18G aircraft in FY 2006 will deliver in the first quarter of FY 2008 as shown in EA-18G APN-1 budget.
This brings the yearly contractual procurement under the MYP to 42 aircraft.

BUDGET PRODUCTION SCHEDULE, P-21						Date FEBRUARY 2005
Appropriation/Budget Activity Aircraft Procurement, Navy/ Combat Aircraft, (BA-1)			Weapon System F/A-18E/F			P-1 Item Nomenclature F/A-18E/F (FIGHTER) HORNET (MYP)

		Production Rate			Procurement Leadtimes					
Item	Manufacturer's Name and Location	MSR	ECON	MAX	ALT Prior to Oct 1	ALT After Oct 2004	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
F/A-18E/F	McDonnell Douglas Aerospace	**42**	**48**	**72**	**0**	**2**	**33**	**35**	**37**	**E**
	McDonnell Douglas Corp. (Boeing)									
	St. Louis, MO. 63165									

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2009												FISCAL YEAR 2010												BAL
						2008			CALENDAR YEAR 2009										CALENDAR YEAR 2010												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
F/A-18E	07	N	14	0	14	1	1	1	2	1	1	2	1	1	1	1	1													0
F/A-18E	07	N	16	0	16	1	1	2	1	1	2	1	1	1	2	1	2													0
Note 1																														

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2011												FISCAL YEAR 2012												BAL
						2010			CALENDAR YEAR 2011										CALENDAR YEAR 2012												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Remarks:

Note 1: Planned procurement of 12 EA-18G aircraft in FY 2007 will deliver in FY 2009. This brings the yearly contractual procurement under the MYP to 42 aircraft.

FY 2005 BUDGET PRODUCTION SCHEDULE, P-21					Date FEBRUARY 2005
Appropriation/Budget Activity		Weapon System	P-1 Item Nomenclature		
Aircraft Procurement, Navy/ Combat Aircraft, (BA-1)		F/A-18E/F	F/A-18E/F (FIGHTER) HORNET (MYP)		
	PRODUCTION RATE		Procurement Leadtimes		

Item	Manufacturer's Name and Location	MSR	ECON	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
F414-GE-400 ENGINE	GENERAL ELECTRIC CO	84	120	144	0	9	27	24	33	E
(F/A-18 AIRCRAFT)	LYNN, MA									

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2005												FISCAL YEAR 2006												BAL
						2004			CALENDAR YEAR 2005									CALENDAR YEAR 2006												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
F414-GE-400 Installs (FY03)	03	N	90	29	61	8	8	7	8	7	8	7	8																	0
F414-GE-400 Installs (FY04)	04	N	84	0	84									7	7	7	7	7	7	7	7	7	7	7						0
F414-GE-400 Installs (FY05)	05	N	84	0	84																					7	7	7	7	56

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2007												FISCAL YEAR 2008												BAL
						2006			CALENDAR YEAR 2007									CALENDAR YEAR 2008												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
F414-GE-400 Installs (FY05)	05	N	84	28	56	7	7	7	7	7	7	7	7																	0
F414-GE-400 Installs (FY06)	06	N	76	0	76										6	7	7	7	7	7	7	7	7	7						0
F414-GE-400 Installs (FY07)	07	N	60	0	60																					5	5	5	5	40

Remarks:

Beginning in FY 2006, engines for EA-18G and Spares are procured with the above F/A-18E/F install engines on the same contract.

BUDGET PRODUCTION SCHEDULE, P-21						Date FEBRUARY 2005	
Appropriation/Budget Activity **Aircraft Procurement, Navy/ Combat Aircraft, (BA-1)**				Weapon System **F/A-18E/F**		P-1 Item Nomenclature **F/A-18E/F (FIGHTER) HORNET (MYP)**	
		PRODUCTION RATE			Procurement Leadtimes		
Item	Manufacturer's Name and Location	MSR	ECON	MAX	ALT Prior to Oct 1	ALT After Oct 2004	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
F414-GE-400 ENGINE	**GENERAL ELECTRIC CO**	**84**	**120**	**144**	**0**	**9**	**27**	**24**	**33**	**E**
(F/A-18 AIRCRAFT)	**LYNN, MA**									

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2009												FISCAL YEAR 2010										BAL
						2008	CALENDAR YEAR 2009											CALENDAR YEAR 2010										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
F414-GE-400 Installs	07	N	60	20	40	5	5	5	5	5	5	5	5																0

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2011												FISCAL YEAR 2012										BAL
						2010	CALENDAR YEAR 2011											CALENDAR YEAR 2012										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Remarks:

Beginning in FY 2006, engines for EA-18G and Spares are procured with the above F/A-18E/F install engines on the same contract.

BUDGET ITEM JUSTIFICATION SHEET **P-40**							DATE: **FEBRUARY 2005**					
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy/ Combat Aircraft, (BA-1)**							P-1 ITEM NOMENCLATURE **F/A-18E/F ADVANCE PROCUREMENT (MYP)**					
Program Element for Code B items: **0204136N**							Other Related Program Elements **0604269N, 0305207N, 0604270N**					
	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
COST (In Millions)	**$1,099.590**	**A**	**$84.009**	**$83.084**	**$86.105**	**$52.788**	**$44.685**	**$51.082**	**$24.465**	**$0.000**	**$0.000**	**$1,525.809**

DESCRIPTION:
The F/A-18E/F Naval Strike Fighter is a twin-engine, mid-wing, multi-mission tactical aircraft. F/A-18E/F can be missionized through selected use of external equipment to accomplish specific fighter or attack missions. This capability allows the Operational Commander more flexibility in employing his tactical aircraft in a dynamic scenario. The primary design mission for the F/A-18E/F is a strike fighter which includes the traditional applications, such as fighter escort and fleet air defense, combined with the attack applications, such as interdiction and close air support. Since the same airframe systems are used on attack missions as well as fighter missions, excellent fighter and self defense capability is retained.

BASIS FOR FY 2006 BUDGET REQUEST:
Funding is requested to procure long lead materials for 30 F/A-18E/F aircraft in FY 2007. This is the third year of a planned five year (FY 2005-2009) multiyear procurement (MYP) based on an aircraft quantity of 210, which includes 154 F/A-18E/Fs in FY 2005-2009 and 56 EA-18Gs in FY 2006-2009 (not reflected in this budget line). This MYP contract is currently funded at the minimum yearly quantity of 42 aircraft per year. The contract has a variation in quantity clause permitting an additional 6 aircraft per year. This contract is projected to yield savings/cost avoidance of $1.052B (10.95%) over a single year procurement strategy. The advance procurement request is strictly related to long lead items included in the subsequent year's procurement and does not include Economic Order Quantity (EOQ) funding to support the second multiyear.

Funding is requested to procure long lead items for the FY2007 engine contract.

FY2006: Funding is also requested for an Ecomomic Order Quantity (EOQ) procurement of 110 ALE-50 Improved Launch Controllers for program years 2007-2011. The cost for this equipment is included in P-5 line 3 "GFE Electronics."

FY2006 is also the fifth year of a five year (FY2002-FY2006) engine MYP, which does not include EOQ funding.

Exhibit P-10 Advance Procurement Requirements Analysis (Page 1 - Funding)					Date: **FEBRUARY 2005**								
Appropriation (Treas) Code/CC/BA/BSA/Item Control Number **Aircraft Procurement, Navy/APN-1, Fighter/Attack Aircraft**					P-1 Line Item Nomenclature **F/A-18E/F ADVANCE PROCUREMENT (MYP)**								
Weapon System **F/A-18E/F**					First System (BY1) Award Date				Interval between Systems **1 1/2 Weeks**				
($ in Millions)													
	PLT	When Rqd	Prior Years	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
End Item Qty			230	42	42	38	30						
CFE- Airframe T.L.	35		536.8	66.4	61.0	55.9	41.4						
EOQ/Long Lead (Prior Years)			274.2										
FOR FY 2004 Long Lead			67.8										
FOR FY 2004 EOQ			22.2										
TOTAL EOQ/Long Lead	Var.	Var.	364.2	0.0	0.0	0.0	0.0						
GFE - F414 Eng.- T.L.	24		191.0	17.2	16.0	14.5	10.8						
GFE - ALE-50 IMPLC		Var.			5.1	4.1							
FOR FY 2008 EOQ						3.3							
FOR FY 2009 EOQ						2.7							
FOR FY 2010 EOQ						3.0							
FOR FY 2011 EOQ						1.9							
GFE - Other	Var.	Var.	7.7	0.4	1.0	0.7	0.6						
Total AP			1099.6	84.0	83.1	86.1	52.8						

NARRATIVE DESCRIPTION:

This line item funds long-lead requirements for the F/A-18E/F production program. From FY2004-FY2008, Airframe/CFE requirements are calculated on a termination liability basis through 31 October of the following fiscal year. This reflects the contractor's funding requirements for the procurement of long-lead parts and material necessary to protect the delivery schedule. Other Government Furnished Equipment (GFE) requirements are determined on a fully loaded basis, procuring the long-lead quantity needed to protect the production schedule. In FY2006, engine requirements are calculated on a termination liability basis for 12 months. EOQ funding is provided for the ALE-50 Improved Launch Controllers in FY06; amortization is realized FY2008-2011.

Exhibit P-10 Advance Procurement Requirements Analysis (Page 2 - Budget Justification)							Date: **FEBRUARY 2005**		
Appropriation (Treasury) Code/CC/BA/BSA/Item Control Number **Aircraft Procurement, Navy/APN-1, Fighter/Attack Aircraft**				Weapon System **F/A-18E/F**			P-1 Line Item Nomenclature **F/A-18E/F ADVANCE PROCUREMENT (MYP)**		
(TOA, $ in Millions)									
	PLT	QPA	Unit Cost	FY 2005 for FY 2006 Qty	FY 2005 Contract Forecast Date	FY 2005 Total Cost Request	FY 2006 for FY 2007 Qty	FY 2006 Contract Forecast Date	FY 2006 Total Cost Request
End Item		N/A				N/A			
Long Lead-Airframe	35		N.A.	T.L. for 38	Nov-04	61.0	T.L. for 30	Nov-05	55.9
GFE - Engine - T.L.	24		N.A.	T.L for 76	Jun-05	16.0	T.L. for 60	Jun-06	14.5
GFE -IMPLC ALE-50			N.A.	EOQ for 38	Mar-05	5.1	EOQ for 110	Mar-06	15.0
GFE - Other	Var.	Var.	N.A.	Var.	Var.	1.0	Var.	Var.	0.7
Total AP						83.1			86.1

Description:

BUDGET ITEM JUSTIFICATION SHEET
P-40

DATE: **February 2005**

APPROPRIATION/BUDGET ACTIVITY
Aircraft Procurement, Navy BA-1 - Combat Aircraft

P-1 ITEM NOMENCLATURE
V-22 OSPREY

Program Element for Code B Items:
BLI: 0164; PE: 0206121M

Other Related Program Elements
1110011F; 1160404BB

	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Program
QUANTITY	59		9	8	9	14	19	30	35	38	187	408
Net P-1 Cost ($M)	5,578.002		807.018	843.302	993.302	1,423.194	1,596.049	2,169.086	2,358.841	2,398.545	12,594.215	30,761.554
Advance Proc ($M)	421.934		38.263	71.214	67.274	171.616	218.523	178.582	119.061	129.523	796.254	2,212.244
Wpn Sys Cost ($M)	5,999.936		845.281	914.516	1,060.576	1,594.810	1,814.572	2,347.668	2,477.902	2,528.068	13,390.469	32,973.798
Initial Spares ($M)	325.405		35.794	110.166	157.267	6.675	2.446	2.682	2.926	3.206	191.122	837.689
Proc Cost ($M)	6,325.341		881.075	1,024.682	1,217.843	1,601.485	1,817.018	2,350.350	2,480.828	2,531.274	13,581.591	33,811.487
Unit Cost ($M)	107.209		97.897	128.085	135.316	114.392	95.633	78.345	70.881	66.612	72.629	82.871

Description:

The V-22 is a tilt-rotor vertical takeoff and landing aircraft currently being developed for joint service application. The program is being designed to provide an aircraft to meet the amphibious/vertical assault needs of the Marine Corps, the strike rescue needs of the Navy, and supplement USSOCOM special mission aircraft. The aircraft will be capable of flying 2,100 miles with one refueling, giving the Services the advantage of a Vertical/Short Takeoff and Landing (V/STOL) aircraft that could rapidly self-deploy to any location in the world.

The current procurement objective is 458: 360 MV-22 Marine Corps aircraft, 48 HV-22 Navy aircraft, and 50 CV-22 aircraft for USSOCOM (funded by USSOCOM and the Air Force). The program is executing Low Rate Initial Production lots prior to a Milestone III decision.

Basis for FY 2006 Request:

FY2006 funding is requested to procure 9 MV-22's with support.

AIRCRAFT COST ANALYSIS **Date: February 2005**

P-5 Cost Sheet

Aircraft Model: V-22

		Prior Years	Lot 8 FY 2004		Lot 9 FY 2005		Lot 10 FY 2006		Lot 11 FY 2007	
		Qty: 59	Qty: 9		Qty: 8		Qty: 9		Qty: 14	
	ITEM	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST
1.	AIRFRAME/CFE	4,254,417.594	69,230.255	623,072.292	68,912.344	551,298.750	68,318.048	614,862.432	64,944.546	909,223.638
2.	ENGINES/ACCESS	226,406.570	3,860.000	34,740.000	4,132.000	33,056.000	3,886.000	34,974.000	4,086.634	57,212.879
3.	CFE MISSION ELEC	-	-	-	-	-	-	-	-	-
4.	GFE ELECTRONICS	27,935.063	780.378	7,023.398	793.116	6,344.927	817.578	7,358.201	834.747	11,686.458
5.	ARMAMENT	-	-	-	-	-	-	-	-	-
6.	OTHER GFE	-	-	-	-	-	-	-	-	-
	SUBTOTAL GFE	254,341.633	4,640.378	41,763.398	4,925.116	39,400.927	4,703.578	42,332.201	4,921.381	68,899.336
7.	REC FLYAWAY ECO	65,038.394	-	-	1,654.310	13,234.482	1,380.917	12,428.249	1,496.980	20,957.716
8.	REC FLYAWAY COST	4,573,797.620	73,870.632	664,835.690	75,491.770	603,934.159	74,402.542	669,622.882	71,362.906	999,080.690
9.	NON-RECURRING	318,635.730		-		63,505.359		79,685.330		103,358.000
10.	ANCILLARY EQUIP	11,054.687		-		-		7,979.950		32,500.000
11.	RESOLUTION MATRIX	53,623.779		44,314.715		38,000.000		81,315.000		75,000.000
12.	TOTAL FLYAWAY	4,957,111.816	78,794.489	709,150.405	88,179.940	705,439.518	93,178.129	838,603.162	86,424.192	1,209,938.690
13.	AIRFRAME PGSE	124,491.903		26,696.114		21,991.077		40,641.820		44,185.384
14.	ENGINE PGSE	3,751.399		307.126		1,196.465		840.900		741.900
15.	AVIONICS PGSE	95,645.604		28,900.848		29,190.617		33,835.318		56,643.070
16.	PEC TRNG EQUIP	156,012.969		5,822.674		41,247.882		22,657.729		35,660.265
17.	PUBS / TECH DATA	82,858.689		10,557.583		8,778.846		11,407.299		11,995.100
18.	OTHER ILS	178,776.204		32,691.078		38,023.483		76,223.448		88,877.787
19.	PROD ENG SUPT	128,968.395		33,811.172		35,697.112		40,306.324		42,425.804
20.	FY89 FUNDING	231,400.000		-		-		-		-
21.	SUPPORT ECO	-		-		-		-		-
22.	TOTAL SUPPORT COST	1,001,905.163		138,786.595		176,125.482		225,912.838		280,529.310
23.	GROSS P-1 COST	5,959,016.979		847,937.000		881,565.000		1,064,516.000		1,490,468.000
24.	ADV PROC CREDIT	(381,015.049)		(40,919.000)		(38,263.000)		(71,214.000)		(67,274.000)
25.	NET P-1 COST	5,578,001.930		807,018.000		843,302.000		993,302.000		1,423,194.000
26.	ADV PROCUREMENT	421,934.049		38,263.000		71,214.000		67,274.000		171,616.000
27.	WEAPON SYS COST	5,999,935.979		845,281.000		914,516.000		1,060,576.000		1,594,810.000
28.	INITIAL SPARES	325,405.000		35,794.000		110,166.000		157,267.000		6,675.000
29.	PROCUREMENT COST	6,325,340.979	97,897.222	881,075.000	127,922.625	1,024,682.000	135,315.889	1,217,843.000	114,391.786	1,601,485.000

P-1 SHOPPING LIST

ITEM NO: 6

CLASSIFICATION: UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)	Weapon System **V-22**	A. DATE **February 2005**
B. APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy; BA-1, Combat Aircraft**	C. P-1 ITEM NOMENCLATURE **V-22 OSPREY**	SUBHEAD **U1CW**

Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST ($000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	TECH DATA AVAILABLE NOW?	DATE REVISIONS AVAILABLE
Airframe/CFE										
FY2004 Aircraft (Lot 8)	9	69.2	NAVAIR	Sep-03	SS/FPIF	Bell-Boeing, Patuxent River, MD.	Jun-04	Dec-05	Yes	N/A
FY2004 for FY2005 AP			NAVAIR	Dec-03	SS/AAC	Bell-Boeing, Patuxent River, MD.	Jan-04		Yes	N/A
FY2005 Aircraft (Lot 9)	8	68.9	NAVAIR	Jun-04	SS/FPIF	Bell-Boeing, Patuxent River, MD.	Dec 04	Nov-06	Yes	N/A
FY2005 for FY2006 AP			NAVAIR	Dec-04	SS/AAC	Bell-Boeing, Patuxent River, MD.	Jan 05		Yes	N/A
FY 2006 Aircraft (Lot 10)	9	68.3	NAVAIR	Nov-04	SS/FFP	Bell-Boeing, Patuxent River, MD.	Dec 05	Oct 07	Yes	N/A
FY 2006 for FY 2007 AP			NAVAIR	Dec-04	SS/AAC	Bell-Boeing, Patuxent River, MD.	Jan 06		Yes	N/A
FY 2007 Aircraft (Lot 11)	14	64.9	NAVAIR	Nov 05	SS/FFP	Bell-Boeing, Patuxent River, MD.	Dec 06	Oct 08	Yes	N/A
FY 2007 for FY 2008 AP			NAVAIR	Dec 06	SS/MYP	Bell-Boeing, Patuxent River, MD.	Jan 07		Yes	N/A

D. REMARKS

CLASSIFICATION: UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)	Weapon System **V-22**	A. DATE **February 2005**
B. APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy; BA-1, Combat Aircraft**	C. P-1 ITEM NOMENCLATURE **V-22 OSPREY**	SUBHEAD **U1CW**

Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST ($000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	TECH DATA AVAILABLE NOW?	DATE REVISIONS AVAILABLE
Engine										
FY2004 Engine (Lot 8)	18	$1.9	NAVAIR	Dec-95	SS/FFP	Rolls Royce	Dec-03	Apr 05	N/A	N/A
FY2005 Engine (Lot 9)	16	$2.0	NAVAIR	Dec-95	SS/FFP	Rolls Royce	Dec-04	Apr 06	N/A	N/A
FY 2006 Engine (Lot 10)	18	$1.9	NAVAIR	Nov 04	SS/FFP	Rolls Royce	Dec 05	Mar 07	N/A	N/A
FY 2007 Engine (Lot 11)	28	$2.0	NAVAIR	Nov 05	SS/FFP	Rolls Royce	Dec 06	Mar 08	N/A	N/A

D. REMARKS

DATE **February 2005**

APPROPRIATION/BUDGET ACTIVITY
Aircraft Procurement, Navy BA-1 - Combat Aircraft

Weapon System
V-22

P-1 ITEM NOMENCLATURE
V-22 OSPREY

Item	Manufacturer's Name and Location	Production Rate MSR	Production Rate ECON	Production Rate MAX	Procurement Leadtimes ALT Prior to Oct 1	Procurement Leadtimes ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
Airframe	Bell-Boeing	12	32	44	5	3	35	34	37	Each
	Patuxent River, MD									

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2004 / 2003 OCT	NOV	DEC	CALENDAR YEAR 2004 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	FISCAL YEAR 2005 / 2004 OCT	NOV	DEC	CALENDAR YEAR 2005 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	BAL
Airframe (Lot 3)	99	M	7	2	5														1											4
Airframe (Lot 4)	00	M	11	1	10																									10
Airframe (Lot 5)	01	M	9	0	9	1	1		1			1	1	1		1	1	1												0
Airframe (Lot 6)	02	M	9	0	9				1		1	1	1	1	1	1		1	1											0
Airframe (Lot 7)	03	M	11	0	11															1	1	1	1	1	1	1	1	1	1	1

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2006 / 2005 OCT	NOV	DEC	CALENDAR YEAR 2006 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	FISCAL YEAR 2007 / 2006 OCT	NOV	DEC	CALENDAR YEAR 2007 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	BAL
AIRFRAME																														
Airframe (Lot 3)	99	M	7	3	4																									4
Airframe (Lot 4)	00	M	11	1	10									1			1			1			1			1			1	4
Airframe (Lot 7)	03	M	11	10	1	1																								0
Airframe (Lot 8)	04	M	9	0	9			1	1	1	1			1	1	1	1	1												0
Airframe (Lot 9)	05	M	8	0	8														1	1	1		1	1	1	1		1		0

Note: Lots 3 and 4 are out of sequence due to Block A mod plan.

DATE **February 2005**

APPROPRIATION/BUDGET ACTIVITY
Aircraft Procurement, Navy BA-1 - Combat Aircraft

Weapon System
V-22

P-1 ITEM NOMENCLATURE
V-22 OSPREY

Item	Manufacturer's Name and Location	Production Rate MSR	ECON	MAX	Procurement Leadtimes ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
Airframe	Bell-Boeing	12	32	44	5	3	35	34	37	Each
	Patuxent River, MD									

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2008 / 2007 OCT	NOV	DEC	CALENDAR YEAR 2008 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	FISCAL YEAR 2009 / 2008 OCT	NOV	DEC	CALENDAR YEAR 2009 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	BAL
Airframe (Lot 3)	99	M	7	3	4													1		1		1		1						0
Airframe (Lot 4)	00	M	11	7	4			1			1		1			1														0
Airframe (Lot 10)	06	M	9	0	9	1	1	1	0	1	1	0	1	1	0	1	1													0
Airframe (Lot 11)	07	M	14	0	14													1	1	1	0	1	1	1	1	2	1	2	2	0

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2010 / 2009 OCT	NOV	DEC	CALENDAR YEAR 2010 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	FISCAL YEAR 2011 / 2010 OCT	NOV	DEC	CALENDAR YEAR 2011 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	BAL
AIRFRAME																														

DD Form 2445, JUL 87 Previous editions are obsolete P-1 SHOPPING LIST

DATE **February 2005**

APPROPRIATION/BUDGET ACTIVITY
Aircraft Procurement, Navy BA-1 - Combat Aircraft

Weapon System
V-22

P-1 ITEM NOMENCLATURE
V-22 OSPREY

Item	Manufacturer's Name and Location	Production Rate MSR	ECON	MAX	Procurement Leadtimes ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
Engine	Allison Engine Co.			88	5	2	28	16	18	Each
	Indianapolis, IN									

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2003 / 2002 OCT	NOV	DEC	CALENDAR YEAR 2003 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	FISCAL YEAR 2004 / 2003 OCT	NOV	DEC	CALENDAR YEAR 2004 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	BAL
Engine (Lot 5) for FY01 Aircraft	01	M	18	10	8	2	2	2	2																					0
Engine (Lot 5/6)	01/02	M	18*	0	18					2	2	2	2		2	2		2		2	2									0
Engine (Lot 7)	03	M	22	0	22																				2	2	2	2	2	12

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2005 / 2004 OCT	NOV	DEC	CALENDAR YEAR 2005 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	FISCAL YEAR 2006 / 2005 OCT	NOV	DEC	CALENDAR YEAR 2006 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	BAL
Engine (Lot 7)	03	M	22	10	12	2	2	2	2	2	2																			0
Engine (Lot 8)	04	M	18	0	18							2	2	2	2			2	2	2	2	2								0
Engine (Lot 9)	05	M	16	0	16																			2	2	2		2	2	6

*14 Engines procured/delivered under Lot 5 for Lot 6. **Installation Lead Time for Engine is 6-9 months to maintain manufacturing flexibility.
NOTE: A/C and Engine deliveries are not in concert with each other due to re-structured A/C delivery to incorporate Block A configuration (fleet safe and deployable). Applicable to FY99-FY02.

DATE **February 2005**

APPROPRIATION/BUDGET ACTIVITY
Aircraft Procurement, Navy BA-1 - Combat Aircraft

Weapon System
V-22

P-1 ITEM NOMENCLATURE
V-22 OSPREY

Item	Manufacturer's Name and Location	Production Rate MSR	Production Rate ECON	Production Rate MAX	Procurement Leadtimes ALT Prior to Oct 1	Procurement Leadtimes ALT After Oct 1	Procurement Leadtimes Initial Mfg PLT	Procurement Leadtimes Reorder Mfg PLT	Procurement Leadtimes Total	Unit of Measure
Engine	Allison Engine Co.			88	5	2	28	16	18	Each
	Indianapolis, IN									

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2007 / 2006 OCT	2006 NOV	2006 DEC	CALENDAR YEAR 2007 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	FISCAL YEAR 2008 / 2007 OCT	2007 NOV	2007 DEC	CALENDAR YEAR 2008 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	BAL
Engine (Lot 9)	05	M	16	10	6	2	2		2																					0
Engine (Lot 10)	06	M	18	0	18						2	2	2	0	2	2	0	2	2	0	2	2								0
Engine (Lot 11)	07	M	28	0	28																		2	2	2	0	2	2	2	16

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2009 / 2008 OCT	2008 NOV	2008 DEC	CALENDAR YEAR 2009 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	FISCAL YEAR 2010 / 2009 OCT	2009 NOV	2009 DEC	CALENDAR YEAR 2010 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	BAL
Engine (Lot 11)	07	M	28	12	16	2	4	2	4	4																				0

**Installation Lead Time for Engine is 6-9 months to maintain manufacturing flexibility.

NOTE: A/C and Engine deliveries are not in concert with each other due to re-structured A/C delivery to incorporate Block A configuration (fleet safe and deployable). Applicable to FY99-FY02.

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy/BA-1 Combat Aircraft**							P-1 ITEM NOMENCLATURE **V-22 ADVANCE PROCUREMENT**					
Program Element for Code B Items: **0206121M**							Other Related Program Elements **1110011F; 1160404BB**					
	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
COST (In Millions)	**421.934**	**B**	**38.263**	**71.214**	**67.274**	**171.616**	**218.523**	**178.582**	**119.061**	**129.523**	**796.254**	**2,212.244**

MISSION AND DESCRIPTION:

The V-22 is a tilt-rotor, vertical takeoff and landing aircraft being developed for joint service application. The program is being designed to provide an aircraft to meet the amphibious/vertical assault needs of the Marine Corps, the strike rescue needs of the Navy, and supplement USSOCOM special mission aircraft. The aircraft will be capable fo flying 2,100 miles with one one refueling, giving the Services the advantage of a Vertical/Short Takeoff and Landing (V/STOL) aircraft that could rapidly self-deploy to any location in the world.

BASIS FOR FY 2006 BUDGET REQUEST:

FY 2006 Advance Procurement funding is requested for the long-lead requirements associated with the procurement of 14 V-22 aircraft in FY 2007. Airframe/CFE requirements are calculated on a termination liability basis, reflecting contractor's funding requirements for procurement of long lead parts and materials necessary to protect the delivery schedule.

Exhibit P-10 Advance Procurement Requirements Analysis (Page 1 - Funding)							Date: **February 2005**						
Appropriation (Treas) Code/CC/BA/BSA/Item Control Number **Aircraft Procurement, Navy/APN-1 Combat Aircraft (BA-1)**							P-1 Line Item Nomenclature **V-22 Advance Procurement**						
Weapon System **V-22 OSPREY**					First System (BY1) Award Date **Dec 2003**				Interval Between Systems **1 Month**				
($ in Millions)													
	PLT	When Rqd	Prior Years	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	To Complete	Total
End Item Qty			59	9	8	9	14						
CFE - Airframe	35	Jan	338.173	37.977	70.856	66.922							
GFE - Engine			8.281										
EOQ							171.081						
GFE Other *	27-32	Various	75.480	0.286	0.358	0.352	0.535						
Total AP			421.934	38.263	71.214	67.274	171.616						

Description:

Airframe/CFE requirements are calculated on a termination liability basis, reflecting contractor's funding requirements for procurement of long lead parts and materials necessary to protect the delivery schedule.

*Includes ADF Antenna, AN/APN-194 Radar Alt Antenna, AN/ARN-147 Antenna, and External Power Monitor (Leadtime is 27-32 Months)

* Specify other items for all pages of this exhibit.

Exhibit P-10 Advance Procurement Requirements Analysis (Page 2 - Budget Justification)							Date: **February 2005**		
Appropriation (Treasury) Code/CC/BA/BSA/Item Control Number **Aircraft Procurement, Navy/APN-1 Combat Aircraft (BA-1)**					Weapon System **V-22 OSPREY**		P-1 Line Item Nomenclature **V-22 Advance Procurement**		
(TOA, $ in Millions)									
	PLT	QPA	Unit Cost	FY 2005 for FY 2006 Qty	FY 2005 Contract Forecast Date	FY 2005 Total Cost Request	FY 2006 for FY 2007 Qty	FY 2006 Contract Forecast Date	FY 2006Total Cost Request
End Item									
CFE - Airframe	34		TL	9	Jan-05	70.8	14	Jan-06	66.9
GFE	27-32					0.4			0.4
Total Advance Proc						71.2			67.3

Description:

Advance procurement for Bell-Boeing termination liability (TL) required to procure long lead parts and material necessary to build component systems for the V-22 aircraft.
GFE is fully funded.

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY: Aircraft Procurement, Navy/Combat Aircraft (BA-1)					P-1 ITEM NOMENCLATURE: UH-1Y/AH-1Z / 0178000							
Program Element for Code B Items: PE 0206131M					Other Related Program Elements							
	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY2008	FY 2009	FY 2010	FY 2011	To Complete	Total Program
QUANTITY		B	9	7	10	18	21	21	22	23	149	280
Net P-1 Cost ($M)	5.987	B	308.562	198.858	307.479	434.942	471.633	443.578	482.196	501.740	3,173.163	6,328.138
Advance Proc ($M)		B										
Wpn Sys Cost ($M)	5.987	B	308.562	198.858	307.479	434.942	471.633	443.578	482.196	501.740	3,173.163	6,328.138
Initial Spares ($M)		B	19.034	16.581	51.081	48.417	75.161	41.921	47.909	47.866		347.970
Proc Cost ($M)	5.987	B	327.596	215.439	358.560	483.359	546.794	485.499	530.105	549.606	3,173.163	6,676.108
Unit Cost ($M)		B	36.400	30.777	35.856	26.853	26.038	23.119	24.096	23.896	21.296	23.843

Description:

Mission Description: The mission of the AH-1Z attack helicopter is to provide rotary wing close air support, anti-armor, armed escort, armed/visual reconnaissance, anti-helicopter and point air defense and fire support coordination during day/night conditions. The mission of the UH-1Y utility helicopter is to provide command and control and combat assault support during day/night and reduced weather conditions. The UH-1Y/AH-1Z remanufacture program is a recapitalization effort that converts 180 AH-1Ws and 100 UH-1Ns into AH-1Zs and UH-1Ys, respectively. Major modifications include: a new 4-bladed rotor system with semiautomatic blade fold of the new composite rotor blades, new performance matched transmissions, a new 4-bladed tail rotor and drive system, upgraded landing gear, and pylon structural modifications. Both aircraft will also incorporate common, modernized and fully integrated cockpits/avionics that will reduce operator work load and improve situational awareness and safety. The UH-1Y/AH-1Z aircraft will have increased maneuverability, speed, and payload capability. Additionally, the AH-1Z will upgrade the current Night Targeting FLIR system to a 3rd generation, staring, focal plane array FLIR that will significantly extend autonomous weapons engagement ranges.

Basis for Request: Funds are requested in FY 2006 to procure 10 AH-1Z/UH-1Y helicopters.

Date: February 2005

AIRCRAFT COST ANALYSIS P-5 Cost Sheet

Aircraft model: AH-1Z/UH-1Y

$ in thousands

			FY2004		FY2005		FY2006		FY2007	
		Prior Years	Qty:	9	Qty:	7	Qty:	10	Qty:	18
		Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost
1	Airframe/CFE		18,481.769	166,335.917	15,405.243	107,836.698	14,540.227	145,402.266	12,690.555	228,429.992
2	Engine/Accessory		1,276.118	11,485.066	1,198.879	8,392.156	1,474.318	14,743.178	1,544.044	27,792.799
3	CFE Mission Elec									
4	GFE Electronics		706.378	6,357.402	1,110.605	7,774.238	1,084.656	10,846.557	1,101.072	19,819.289
5	Armament		34.942	314.475	44.458	311.204	33.712	337.118	29.413	529.437
6	Other GFE		434.345	3,909.104	485.205	3,396.438	510.878	5,108.784	524.480	9,440.642
7	Rec Flyaway ECO		547.800	4,930.197	384.669	2,692.682	268.805	2,688.045	253.811	4,568.600
8	Rec Flyaway Cost		21,481.351	193,332.161	18,629.059	130,403.416	17,912.595	179,125.948	16,143.376	290,580.759
9	Non-Recurring			24,297.995		5,161.185		12,890.944		15,333.964
10	Ancillary Equipment			562.365		571.544		386.735		33,986.197
11										
12	Total Flyaway		24,243.613	218,192.521	19,448.021	136,136.145	19,240.363	192,403.627	18,883.384	339,900.920
13	Support Equipment			4,516.868		2,094.377		36,526.178		36,731.405
14	Pec Trng Equip			45,949.108		10,079.518		39,719.704		6,410.227
15	Pubs/Tech Data			5,260.830		8,150.642		11,523.007		6,502.606
16	Other ILS			13,943.151		20,172.348		6,921.501		23,896.843
17	Production Support			20,699.522		22,224.970		20,384.983		21,499.999
18	Reclamation	5,986.969								
19										
20										
21	Support Costs	5,986.969		90,369.479		62,721.855		115,075.373		95,041.080
22	Gross P-1	5,986.969		308,562.000		198,858.000		307,479.000		434,942.000
23	Adv Proc Credit									
24	Net P-1 Cost	5,986.969		308,562.000		198,858.000		307,479.000		434,942.000
25	Adv Proc CY									
26	Weapon System Cost	5,986.969		308,562.000		198,858.000		307,479.000		434,942.000
27	Initial Spares			19,034.000		16,581.000		51,081.000		48,417.000
28	Procurement Cost	5,986.969	36,399.556	327,596.000	30,777.000	215,439.000	35,856.000	358,560.000	26,853.278	483,359.000

CLASSIFICATION: UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)	Weapon System UH-1Y/AH-1Z	A. DATE February 2005
B. APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy / BA-1	C. P-1 ITEM NOMENCLATURE UH-1Y/AH-1Z	SUBHEAD U14B

Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST ($000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	TECH DATA AVAILABLE NOW?	DATE REVISIONS AVAILABLE
Airframe/FY04	9	18,481.769	NAVAIR	Dec-02	FFP	Bell Helicopter, Ft. Worth TX	Jan-04	Mar-06	Yes	N/A
Airframe/FY05	7	15,405.243	NAVAIR	Dec-02	FFP	Bell Helicopter, Ft. Worth TX	Mar-05	Mar-07	Yes	N/A
Airframe/FY06	10	14,540.227	NAVAIR	Mar-05	FFP	Bell Helicopter, Ft. Worth TX	Jan-06	Jan-08	No	Nov-05
Airframe/FY07	18	12,690.555	NAVAIR	Mar-05	FFP	Bell Helicopter, Ft. Worth TX	Dec-06	Nov-09	No	Oct-06

D. REMARKS

CLASSIFICATION: UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)	Weapon System UH-1Y/AH-1Z	A. DATE February 2005
B. APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy / BA-1	C. P-1 ITEM NOMENCLATURE UH-1Y/AH-1Z	SUBHEAD U14B

Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST ($000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	TECH DATA AVAILABLE NOW?	DATE REVISIONS AVAILABLE
UH-1Y Engine /FY04	12	1276.118	AMCOM	N/A	FFP	General Electric Lynn, MA	Jan 04	Sep 05	YES	N/A
UH-1Y Engine/FY05	8	1198.879	AMCOM	N/A	FFP	General Electric Lynn, MA	Mar 05	Oct 06	YES	N/A
UH-1Y Engine/FY06	16	1474.318	AMCOM	N/A	FFP	General Electric Lynn, MA	Jan 06	Jul 07	NO	Nov-05
UH-1Y Engine/FY07	30	1544.044	AMCOM	N/A	FFP	General Electric Lynn, MA	Dec 06	Apr 08	NO	Oct-06

D. REMARKS

New engines will be procured for the UH-1Y only. The AH-1Z will utilize refurbished engines from the AH-1W aircraft.

BUDGET PRODUCTION SCHEDULE, P-21					DATE February 2005
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/ BA-1			Weapon System UH-1Y/AH-1Z		P-1 ITEM NOMENCLATURE UH-1Y/AH-1Z
		Production Rate			Procurement Leadtimes					
Item	Manufacturer's Name and Location	MSR	ECON	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
AH-1Z/ UH-1Y Airframe	Bell Helicopter, Ft. Worth TX	12	42	84	10	4		24	28	E

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2006												FISCAL YEAR 2007												BAL
									CALENDAR YEAR 2006												CALENDAR YEAR 2007										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
AH-1Z Airframe	04	N	3	0	3							1					1					1									0
UH-1Y Airframe	04	N	6	0	6						1		1		1			1		1		1									0
AH-1Z Airframe	05	N	3	0	3																		1				1			1
UH-1Y Airframe	05	N	4	0	4																				1		1	1	1	0

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2008												FISCAL YEAR 2009												BAL
									CALENDAR YEAR 2008												CALENDAR YEAR 2009										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
AH-1Z Airframe	05	N	3	2	1	1																								0
UH-1Y Airframe	05	N	4	4	0																									0
AH-1Z Airframe	06	N	2	0	2					1				1																0
UH-1Y Airframe	06	N	8	0	8				1	1	1	1	1	1		1	1													0
AH-1Z Airframe	07	N	3	0	3																		1		1				1	0
UH-1Y Airframe	07	N	15	0	15														2	2	1	1	1	1	2	1	1	2	1	0

Note: Maximum economic production rate is constrained by Fleet turn-in limitations. Fleet turn-in is limited to 38 AH-1W and 16 UH-1N airframes per year.

BUDGET PRODUCTION SCHEDULE, P-21					DATE February 2005
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/ BA-1			Weapon System UH-1Y		P-1 ITEM NOMENCLATURE UH-1Y/AH-1Z

		Production Rate			Procurement Leadtimes					
Item	Manufacturer's Name and Location	MSR	ECON	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
Engine T700-GE-401C	General Electric, Lynn, MA	12	420	840	4	4		18	22	E
(with DECU)										

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2005												FISCAL YEAR 2006												BAL
									CALENDAR YEAR 2005												CALENDAR YEAR 2006										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
UH-1Y/Engines	04	N	12	0	12												2		2		2			2		2		2		0

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2007												FISCAL YEAR 2008												BAL
									CALENDAR YEAR 2007												CALENDAR YEAR 2008										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
UH-1Y/Engines	05	N	8	0	8	1		1	1	1	1	1	1	1																0
UH-1Y/Engines	06	N	16	0	16										2	2	2	2	2	2		2	2							0
UH-1Y/Engines	07	N	30	0	30																			2	2	2	3	3	3	15

New engines will be procured for the UH-1Y only. The AH-1Z will utilize refurbished engines from the AH-1W aircraft.

BUDGET ITEM JUSTIFICATION SHEET
P-40

DATE: Feb 2005

APPROPRIATION/BUDGET ACTIVITY
Aircraft Procurement, Navy/BA-1

P-1 ITEM NOMENCLATURE
MH-60S Vertical Replenishment (MYP)

Program Element for Code B Items:
0204453N

Other Related Program Elements

	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Program
QUANTITY	65	A	13	15	26	26	26	26	17	15	42	271
Net P-1 Cost ($M)	1,081.127	A	308.243	294.453	463.369	570.200	555.278	649.124	477.934	435.887	843.279	5,678.894
Advance Proc ($M)	317.474	A	94.125	104.753	125.698	118.165	119.855	78.591	74.408	109.338	144.306	1,286.713
Wpn Sys Cost ($M)	1,398.601	A	402.368	399.206	589.067	688.365	675.133	727.715	552.342	545.225	987.585	6,965.607
Initial Spares ($M)	88.440	A	26.150	16.711	19.593	8.697	4.982	1.161	1.611	1.811		169.156
Proc Cost ($M)	1,487.041	A	428.518	415.917	608.660	697.062	680.115	728.876	553.953	547.036	987.585	7,134.763
Unit Cost ($M)	22.878	A	32.963	27.728	23.410	26.810	26.158	28.034	32.585	36.469	23.514	26.328

Description:

The Helicopter COMBAT Support (HC) mission of the MH-60S is to maintain forward deployed fleet sustainability through rapid airborne delivery of materials and personnel and to support amphibious operations through search and rescue coverage. The primary roles of the aircraft are to conduct vertical replenishment (VERTREP), day/night ship-to-ship, ship-to-shore, and shore-to-ship external transfer of cargo; internal transport of passengers, mail and cargo, vertical onboard delivery (VOD) ; airhead operations, and day/night search and rescue (SAR). Armed Helo and Organic Airborne Mine Countermeasures (OAMCM) have been added as primary mission areas for the MH-60S, to be completed as block upgrades to the platform. The purpose of the Armed Helo program is to provide Combat Search and Rescue (CSAR), Anti-Surface Warfare (SUW), and Force Protection (FP). The purpose of the OAMCM program is to ensure integration of five separate sensors into the MH-60S helicopter. The AMCM mission will provide Carrier Battle Groups (CVBGs) and Amphibious Readiness Groups (ASGs) with an OAMCM capability. The aircraft secondary roles include torpedo and drone recovery, noncombatant evacuation operations (NEO), SEAL and EOD support.

Basis for Request:

FY06 funds the procurement of 26 MH-60S aircraft. This is the fifth year of an approved 5 year joint service multiyear procurement (MYP). Follow on joint service multiyear procurement contract is planned for FY 2007-FY2011, with economic order quantity (EOQ) funding beginning in FY 2006. Potential exists for Navy only contract. The common cockpits for the MH-60R and MH-60S are being procured under a Multiyear Procurement (MYP) contract (FY 2005 - FY 2008), with an option year in FY 2009. The common cockpit MYP funding reflects applicable EOQ requirements.

Note: Totals may be off due to rounding.

AIRCRAFT COST ANALYSIS

Aircraft Model: MH-60S VERTREP

Date: Feb 2005

P-5 Cost Sheet
$ in thousands

ITEM	Prior Years 65 Total Cost	FY 2004 13 Unit Cost	FY 2004 13 Total Cost	FY 2005 15 Unit Cost	FY 2005 15 Total Cost	FY 2006 26 Unit Cost	FY 2006 26 Total Cost	FY 2007 26 Unit Cost	FY 2007 26 Total Cost
1. AIRFRAME/CFE	736,829.050	12,310.981	160,042.754	13,453.374	201,800.607	13,301.921	345,849.935	13,509.606	351,249.755
2. ENGINE/ACCESSORIES	93,429.887	1,534.861	19,953.193	1,540.512	23,107.680	1,572.546	40,886.193	1,605.569	41,744.803
3. CFE ELECTRONICS									
4. GFE ELECTRONICS	164,118.840	2,445.798	31,795.372	2,241.493	33,622.400	2,702.186	70,256.844	2,948.647	76,664.832
5. ARMAMENT									
6. OTHER GFE	3,920.026	77.660	1,009.586	236.018	3,540.276	327.443	8,513.508	451.414	11,736.774
GFE SUBTOTAL	261,468.753	4,058.319	52,758.151	4,018.024	60,270.356	4,602.175	119,656.545	5,005.631	130,146.409
7. REC FLYAWAY ECO	3,852.715	230.769	3,000.000	129.968	1,949.522	226.191	5,880.968	121.153	3,149.986
8. REC FLYAWAY COST	1,002,150.518	16,600.070	215,800.905	17,601.366	264,020.485	18,130.286	471,387.448	18,636.390	484,546.150
9. NON-RECURRING	33,497.144		49,825.799		9,300.719		6,997.954		4,457.956
10. ANCILLARY EQUIPMENT	36,257.371		20,790.850		45,026.336		36,402.749		109,641.526
11.									
12. TOTAL FLYAWAY COST	1,071,905.033		286,417.553		318,347.540		514,788.151		598,645.632
13. AIRFRAME PGSE	25,368.120		7,031.470		8,087.289		7,040.711		4,603.596
14. ENGINE PGSE	1,996.270		14.000		800.000		1,350.000		350.000
15. AVIONICS PGSE	17,852.486		1,881.485		2,100.000		3,500.000		3,784.303
16. PEC TRAINING EQUIP	94,916.666		58,236.988		33,048.174		15,853.874		54,832.706
17. PUBS/TECH DATA	17,418.950		2,948.323		2,690.000		2,590.000		2,480.000
18. WEAPON SYSTEM	700.000		250.000		500.000		500.000		500.000
19. FIELD ACTIVITIES	67,431.458		24,297.085		19,837.581		21,471.292		18,908.791
20. ILS/LS/MES	10,399.317		2,722.096		3,010.000		2,930.000		2,830.000
21. PRODUCTION SUPPORT	5,410.591				725.416				
22. SPARES	5,296.109								
23. SUPPORT COST	246,789.967		97,381.447		70,798.460		55,235.878		88,289.396
24 GROSS P-1 COST	1,318,695.000		383,799.000		389,146.000		570,024.029		686,935.028
25 ADV PROC CREDIT	-237,568.000		-75,556.000		-94,693.000		-106,655.000		-116,734.846
26. NET P-1 COST	1,081,127.000		308,243.000		294,453.000		463,369.029		570,200.182
27. ADV PROCUREMENT	317,474.000		94,125.000		104,753.000		125,697.971		118,164.818
28. WEAPONS SYSTEM	1,398,601.000		402,368.000		399,206.000		589,067.000		688,365.000
29. INITIAL SPARES	88,440.000		26,150.000		16,711.000		19,593.000		8,697.000
30. PROCUREMENT COST	1,487,041.000		428,518.000		415,917.000		608,660.000		697,062.000

CLASSIFICATION: UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)	Weapon System MH-60S VERTREP	A. DATE Feb 2005
B. APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/Combat Aircraft (BA-1)	C. P-1 ITEM NOMENCLATURE MH-60S Vertical Replenishment (MYP)	SUBHEAD U1VR

Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST ($000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	TECH DATA AVAILABLE NOW?	DATE REVISIONS AVAILABLE
Airframe/CFE										
FY 2004	13	12,311	Army	10/00	SS/MYP	Sikorsky, Stratford, CT	12/03	7/04	Yes	N/A
FY 2004 for FY 2005 AP			Army	10/00	SS/MYP	Sikorsky, Stratford, CT	12/03		Yes	N/A
FY 2005	15	13,453	Army	10/00	SS/MYP	Sikorsky, Stratford, CT	12/04	7/05	Yes	N/A
FY 2005 for FY 2006 AP			Army	10/00	SS/MYP	Sikorsky, Stratford, CT	12/04		Yes	N/A
FY 2006	26	13,302	Army	10/00	SS/MYP	Sikorsky, Stratford, CT	12/05	7/06	Yes	N/A
FY 2006 for FY 2007 AP			Army	TBD	SS/MYP	Sikorsky, Stratford, CT	12/05		Yes	N/A
FY 2007	26	13,510	Army	TBD	SS/MYP	Sikorsky, Stratford, CT	12/06	7/07	Yes	N/A
FY 2007 for FY 2008 AP			Army	TBD	SS/MYP	Sikorsky, Stratford, CT	12/06		Yes	N/A

D. REMARKS

The airframe is under an Army multiyear contract through FY-06. An advanced acquisition contract is planned for the FY-06 termination liability in anticipation of award of a follow-on multiyear contract for the airframe.

Note: Amounts may be off due to rounding.

CLASSIFICATION: UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)	Weapon System: MH-60S VERTREP	A. DATE: Feb 2005
B. APPROPRIATION/BUDGET ACTIVITY: Aircraft Procurement, Navy/Combat Aircraft (BA-1)	C. P-1 ITEM NOMENCLATURE: MH-60S Vertical Replenishment (MYP)	SUBHEAD: U1VR

Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST ($000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	TECH DATA AVAILABLE NOW?	DATE REVISIONS AVAILABLE
Engine										
FY 2004	26	697	Army	5/02	SS/FFP	GE, Lynn, Mass	3/04	3/04	Yes	N/A
FY 2004 for FY 2005 AP			Army	5/02	SS/FFP	GE, Lynn, Mass	3/04		Yes	N/A
FY 2005	30	697	Army	5/02	SS/FFP	GE, Lynn, Mass	3/05	3/05	Yes	N/A
FY 2005 for FY 2006 AP			Army	5/02	SS/FFP	GE, Lynn, Mass	3/05		Yes	N/A
FY 2006	52	712	Army	5/02	SS/FFP	GE, Lynn, Mass	3/06	3/06	Yes	N/A
FY 2006 for FY 2007 AP			Army	5/02	SS/FFP	GE, Lynn, Mass	3/06		Yes	N/A
FY 2007	52	727	Army	5/02	SS/FFP	GE, Lynn, Mass	3/07	3/07	Yes	N/A
FY 2007 for FY 2008 AP			Army	5/02	SS/FFP	GE, Lynn, Mass	3/07		Yes	N/A

D. REMARKS

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)	Weapon System MH-60S VERTREP	A. DATE Feb 2005

B. APPROPRIATION/BUDGET ACTIVITY	C. P-1 ITEM NOMENCLATURE	SUBHEAD
Aircraft Procurement, Navy/Combat Aircraft (BA 1)	MH-60S Vertical Replenishment (MYP)	U1VR

Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST ($000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	TECH DATA AVAILABLE NOW?	DATE REVISIONS AVAILABLE
Common Cockpit										
FY 2004 for FY 2005 AP			NAVAIR	8/03	SS/MYP	Lockheed Martin, Owego, NY	12/03		Yes	N/A
FY 2005	15	1,519	NAVAIR	8/03	SS/MYP	Lockheed Martin, Owego, NY	12/04	3/05	Yes	N/A
FY 2005 for FY 2006 AP			NAVAIR	8/03	SS/MYP	Lockheed Martin, Owego, NY	12/04		Yes	N/A
FY 2006	26	1,655	NAVAIR	8/03	SS/MYP	Lockheed Martin, Owego, NY	12/05	3/06	Yes	N/A
FY 2006 for FY 2007 AP			NAVAIR	8/03	SS/MYP	Lockheed Martin, Owego, NY	12/05		Yes	N/A
FY 2007	26	1,859	NAVAIR	8/03	SS/MYP	Lockheed Martin, Owego, NY	12/06	3/07	Yes	N/A
FY 2007 for FY 2008 AP			NAVAIR	8/03	SS/MYP	Lockheed Martin, Owego, NY	12/06		Yes	N/A

D. REMARKS

Note: The amounts may be off due to rounding.

PRODUCTION SCHEDULE, P-21					DATE	Feb 2005
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/Combat Aircraft (BA 1)			Weapon System **MH-60S VERTREP**		P-1 ITEM NOMENCLATURE MH-60S Vertical Replenishment (MYP)	

		Production Rate			Procurement Leadtimes					
Item	Manufacturer's Name and Location	MSR	ECON	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
Airframe	Sikorsky Aircraft Div	18	24	60		3	18	19	22	E
	Stratford, CT									

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2005												FISCAL YEAR 2006										BAL
						2004			CALENDAR YEAR 2005									CALENDAR YEAR 2006										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Airframe	04	N	13	4	9	1	1	1	1	1	1	1	1	1															0
Airframe	05	N	15	0	15										1	1	2	1	2	1	1	1	2	1	1	1				0
Airframe	06	N	26	0	26																						2	2	2	20

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2007												FISCAL YEAR 2008										BAL
						2006			CALENDAR YEAR 2007									CALENDAR YEAR 2008										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Airframe	06	N	26	6	20	2	2	2	2	2	2	3	2	3															0
Airframe	07	N	26	0	26										2	2	2	2	2	2	2	2	2	3	2	3				0

PRODUCTION SCHEDULE, P-21					DATE	Feb 2005
APPROPRIATION/BUDGET ACTIVITY			Weapon System		P-1 ITEM NOMENCLATURE	
Aircraft Procurement, Navy/Combat Aircraft (BA 1)			MH-60S VERTREP		MH-60S Vertical Replenishment (MYP)	
		Production Rate			Procurement Leadtimes					
Item	Manufacturer's Name and Location	MSR	ECON	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
Engines	General Electric Co.	0	168	960	9	6	12	12	18	E
	Lynn, MA									

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2005												FISCAL YEAR 2006												BAL
						2004			CALENDAR YEAR 2005										CALENDAR YEAR 2006												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Engine	04	N	26	16	10	2	2	2	2	2																			0
Engine	05	N	30	0	30						2	2	4	2	4	2	2	2	4	2	2	2							0
Engines	06	N	52	0	52																	4	4	4	4	4	4	4	24

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2007												FISCAL YEAR 2008												BAL
						2006			CALENDAR YEAR 2007										CALENDAR YEAR 2008												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Engines	06	N	52	28	24	4	4	6	4	6																			0
Engines	07	N	52	0	52						4	4	4	4	4	4	4	4	4	6	4	6							0

PRODUCTION SCHEDULE, P-21 | DATE: Feb 2005

APPROPRIATION/BUDGET ACTIVITY: Aircraft Procurement, Navy/Combat Aircraft (BA 1)

Weapon System: MH-60S VERTREP

P-1 ITEM NOMENCLATURE: MH-60S Vertical Replenishment (MYP)

Item	Manufacturer's Name and Location	Production Rate MSR	Production Rate ECON	Production Rate MAX	Procurement Leadtimes ALT Prior to Oct 1	Procurement Leadtimes ALT After Oct 1	Procurement Leadtimes Initial Mfg PLT	Procurement Leadtimes Reorder Mfg PLT	Total	Unit of Measure
Common Cockpit (MYP)	Lockheed Martin	18	24	60	9	3	21	15	18	E
	Owega, NY									

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2005 / 2004 OCT	NOV	DEC	CALENDAR YEAR 2005 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	FISCAL YEAR 2006 / CALENDAR YEAR 2006 OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	BAL
Common Cockpit	04	N	13	8	5	1	1	1	1	1																				0
Common Cockpit	05	N	15	0	15						1	1	2	2	2	1	1	1	1	1	1	1								0
Common Cockpit	06	N	26	0	26																		2	2	2	2	2	2	2	12

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2007 / 2006 OCT	NOV	DEC	CALENDAR YEAR 2007 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	FISCAL YEAR 2008 / CALENDAR YEAR 2008 OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	BAL
Common Cockpit	06	N	26	14	12	2	2	3	2	3																				12
Common Cockpit	07	N	26	0	26						2	2	2	2	2	2	2	2	2	3	2	3								0

Exhibit MYP-1, Multiyear Procurement Criteria

Program: UH-60M BLACK HAWK/MH-60S SEAHAWK AIRFRAME

1. Multiyear Procurement Description:

This package represents the procurement of 351 UH-60M BLACK HAWK aircraft and 110 MH-60S SEAHAWK with an option for approximately 141 MH-60R SEAHAWK aircraft on a five year airframe contract over the period FY07-11. The Navy MH-60S aircraft are essentially the same configuration as those procured on the FY02-06 joint multiyear contract with the UH-60L BLACK HAWK. The Army UH-60M aircraft are based on the UH-60L, but are being modified via ECP. All requirements for these aircraft are funded in the FY06 President's Budget and will be included in the base contract quantity. Option prices for mission kits, services, and additional aircraft to cover FMS and other service requirements will also be negotiated. The Navy is also considering adding the production of MH-60R model aircraft to this contract, at a rate of 25-30 per year. This will further increase the economic benefits of a multiyear contract. In the event of a significant delay in either service's program, the multiyear contract will include mechanisms which will allow for the award of a single service multiyear contract, which can be converted to a multi-service multiyear contract at the Government's discretion. These exhibits are intended to satisfy initial congressional notification requirements necessary to obtain multiyear contract authorization for the UH-60M BLACK HAWK and MH-60S SEAHAWK. It is intended that exhibits will be provided in the FY07 President's Budget for the MH-60R. An update will be provided 30 days prior to the proposed contract award. The U.S. Army /Navy proposes the UH-60M BLACK HAWK/MH-60S SEAHAWK with options for the MH-60R helicopter system (airframe) as a multiyear contract for FY07-11 since it satisfies each of the elements of the criteria as indicated below:

2. Benefit to the Government:

a. Substantial Cost Avoidance:

Exhibit MYP-1, Multiyear Procurement Criteria

Program: UH-60M BLACK HAWK/MH-60S SEAHAWK AIRFRAME

(1) Based on a comparison of the estimated prices for five single year contracts to the estimated price for one five year multiyear for the UH-60M airframe over the period FY07-11, there is a cost avoidance of approximately $302.4 million for multiyear contracting over single year contracting. Based on a comparison of estimated prices for five single year contracts to the estimated price for one five year multiyear for the MH-60S airframes over the period FY07-11, there is a cost avoidance of approximately $94.6 million for the multiyear contracting for the MH-60S over single year contracting. The current UH-60M and MH-60S budgets are based on a follow-on multiyear contract beginning in FY07.

(2) Where possible, alternate sources have been found for parts in order to encourage competition and reduce costs. Alternate suppliers are interested in providing bids and making significant investments only as a result of the long-term stability provided by the multiyear. Some components have minimum buy quantities, which may not be met under single year procurements, driving up unit costs as the total cost is artificially high. Multiyear procurement quantities will allow the prime contractor and subcontractors at all tiers to exceed minimum order quantities resulting in reduced costs for these components. Typically suppliers will provide price discounts to lock in business. Given a five year contract, suppliers will have greater total business and greater stability. Therefore, they will be capable of finding innovative processes and be able to justify capital investments necessary to reduce costs. Some of these cost reductions will be passed on to the customer in the form of price reductions. In addition, to these types of process innovations and capital investments, competition is expected to be greater based on larger purchase volumes.

(3) Administrative costs are reduced since there is only one proposal, negotiation, and purchase order instead of a string of five single year procurement actions. These costs are reduced to the prime contractor, since

they have only one contract to negotiate with the government vice five. Prime contractor costs will also be reduced, as subcontracts at all tiers will only be entered into once. Some suppliers include proposal preparation and negotiation as a direct charge to the purchase order; in these cases a dollar for dollar reduction will be realized as a result of the single proposal action. Additional administrative reduction is realized in production planning. Production line administrative processes will only be performed once, rather than five times under single year procurement, resulting in significant cost avoidance.

(4) The transition to a product development process based on electronic data is complete. Product data creation for new design is performed exclusively in a 3D CAD environment. Commitment to the constant improvement of the design technology is continuing under the Lean Digital Product Development project. New capabilities are being implemented of which many will be released during the new proposed multi year contract. These activities are part of a multi-million dollar project aimed at increasing engineering productivity by at least 25%, reducing the cost of quality, and enabling design collaboration with suppliers. Once again the business base created by the multiyear procurement justified the original investment and will be necessary for continued significant investment in this critical area.

(5) The prime contractor sets the standard for the vendors that support his contract commitments and as new processes and innovations are implemented at the prime facility, the vendors are encouraged to adopt those elements that enhance their performance. The stability of long term commitments supported by multiyear contracts provides the collateral required to support their financial investments.

(6) New training programs for first time subcontractors will be initiated on an as required basis, especially in the highly skilled trades areas. Existing training programs for Sikorsky and its major subcontractors

will provide the ability to maintain a highly trained staff for a multiyear program, because it will allow a stable employment base.

(7) Use of Vendor Multiyear Contracts: Subcontractors are receiving purchase orders for the total quantity authorized for the prime contract.

b. Stability of Requirement: The UH-60M BLACK HAWK is one of the core aviation programs and is approved for procurement by the Army through FY11. The minimum need for the UH-60M BLACK HAWK is not expected to decrease during the contemplated contract period, as the requirement for over 1800 replacement aircraft will support a production line well into the 2020s. The Navy initiated its procurement of the MH-60S in FY99, with a requirement to buy an average of 20 aircraft per year for a total of 271 aircraft. The MH-60S SEAHAWK aircraft support U.S. Navy Helo Concept of Operations (CONOPS) and are approved for procurement by the Navy through FY11. The Navy's total MH-60S requirement is set forth in the Chief of Naval Operations approved Navy Helo CONOPS plan of 2002 and is a key component in the modernization and recapitalization of the Naval Helicopter force through 2020.

c. Stability of Funding: The funding for the UH-60M and MH-60S programs is stable. The Army has consistently included funding for the BLACK HAWK in all budget submissions. Congressional action has provided funds above the President's Budget for UH-60 aircraft in the current multiyear contract in each of the last four years by 10 in FY02, 7 in FY03, 9 in FY04, and 6 in FY05. The Navy has consistently provided funding for the MH-60S program. DoD funding in the FY 06 President's Budget supports the procurement of a minimum of 60 aircraft per year. The success of the prior six multiyear contracts for the UH-60A/L and the prior multiyear

contract for MH-60S has provided the confidence in the programs to obtain full support by all levels of the budget process.

d. Stable Configuration: The UH-60 will be in the thirty-first year and the MH-60S will be in the sixth year of full-rate production in FY07 and will be produced in basically the same configurations that have been utilized over the prior thirty years and six years respectively. There have been configuration changes during that period to allow for changing mission requirements or to improve on the producibility or reliability of the system. Similar configuration changes will be included under this contract, bringing it to the upgraded UH-60M configuration. The proposed contract will procure two distinct service configurations—the Army UH-60M and Navy MH-60S with options for a third distinct configuration, the MH-60R. Commonality between the three configurations is substantial.

e. Realistic Cost Estimate: The procurement cost estimate for the UH-60M/MH-60S program is realistic. The current procurement cost estimate is based on negotiated FY02-06 multiyear prices, UH-60M LRIP proposal data and UH-60M contract experience (36 months on contract). The third prototype aircraft under this contract is a new production UH-60M. The contract will be a Firm Fixed Price (FFP) contract with no unfunded cancellation ceiling.

f. National Security: As a principle element of the Defense Planning Guidance, the Department of the Navy developed its Transformation Roadmap. The Roadmap describes the key naval concepts, capabilities, initiatives, processes and programs that will guide the transformation efforts of the Navy. Naval transformation will support joint transformation by delivering new military capabilities that will greatly expand the sovereign options available to joint force commanders to project power, assure access, and protect and advance America's interests worldwide

in the face of emergent threat technologies and strategies. One of these naval concepts is Sea Shield. Sea Shield permits the joint force to operate effectively despite adversary efforts to deny theater access to U.S. forces. It achieves these goals by exploiting global sea control to defeat area denial threats including aircraft, missiles, small littoral surface combatants, mines, and submarines. Concepts and capabilities are being developed to counter the threats from quiet diesel submarines operating near the coast and mines in and beyond the surf zone. Key components that will provide these capabilities are the MH-60 Seahawk aircraft. Section III of the Defense Planning Guidance, FY 1999-2003, dated 2 July 1997, states that readiness and sustainability remain the top priorities of the Department of Defense. A flexible vertical replenishment at-sea capability is vital to these objectives.

3. Breakout of Cost Avoidance: (Details are contained in MYP2-4)

	$ in Millions	$ in Millions
	Army	Navy
Inflation	$27.0M	$4.9M
Vendor Procurement	91.8	34.1
Manufacturing	119.1	47.4
Design/Engineering	16.7	5.4
Other	47.8	2.8
Total	302.4	94.6

4. Advantages of the MYP: A Multi-service multiyear contract results in a significant cost avoidance ($397.0M) over a single year approach, eliminates duplicative project management costs, maintains the capability to produce additional aircraft to meet the needs of mobilization and FMS sales, and maintains an industrial base necessary to meet the production requirements of current and future helicopter systems.

5. Impact on Industrial Base:

Implementation of this proposed MYP will yield a favorable impact on the industrial base. The stability afforded by the use of a multiyear procurement will allow the prime contractor to enter into long term agreements with suppliers, at every tier, which provide substantial cost avoidance.

Significant competition at the subcontractor level is expected as a result of the proposed five year FY07-11 airframe multiyear contracting strategy. Competitive bids are expected to be at an annual rate of approximately 45 percent. Every opportunity to encourage dual sourcing at the subcontractor level will be pursued. The first tier subcontractor plan will be structured to encourage competition at the second tier supplier level, indicating full utilization of small and disadvantaged businesses. While significant supplier downsizing and consolidation have occurred due to a general reduction in spending, multiyear contracting will produce acceptable supplier pricing due to the stable business base.

Production Capacity: Present tooling can produce approximately 17 aircraft per month by the prime contractor. This capacity is more than adequate to accommodate the FY07-11 airframe multiyear contract requirements.

Exhibit MYP-1, Multiyear Procurement Criteria

Program: UH-60M BLACK HAWK/MH-60S SEAHAWK AIRFRAME

6. Multiyear Procurement Summary:

Army	**ANNUAL CONTRACTS**	**MYP ALTERNATIVE**
Quantity	351	351
Total Contract Price	$4,210.6M	$3,908.2
Cancellation Ceiling	$0.0	$0.0
$ Cost Avoidance Over Annual		$302.4
% Cost Avoidance Over Annual		7.2%

Navy	**ANNUAL CONTRACTS**	**MYP ALTERNATIVE**
Quantity	110	110
Total Contract Price	$1,665.3M	$1,570.7M
Cancellation Ceiling	$0.0	$0.0
$ Cost Avoidance Over Annual		$94.6
% Cost Avoidance Over Annual		5.7%

Note: Numbers may be off due to rounding.

Exhibit MYP-2 Program Funding Plan					Date: February, 2005							
Appropriation (Treasury) Code/CC/BA/BSA/Item Control No: **Aircraft Procurement Army (P1100)**					P-1 Line Item Nomenclature: **Army UH-60M BLACKHAWK(MYP)**							
	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	Total
Procurement Quantity		45	80	76	74	76						351
Annual Procurement												
Gross Cost		781.800	1,206.867	1,162.222	1,169.000	1,204.978						5,524.867
Less PY Adv Procurement		79.052	143.073	138.445	137.491	144.033						642.094
Net Procurement(=P-1)		702.748	1,063.794	1,023.777	1,031.509	1,060.945						4,882.773
Plus CY Adv Procurement	79.052	143.073	138.445	137.491	144.033							642.094
Weapon System Cost	79.052	845.821	1,202.239	1,161.268	1,175.542	1,060.945						5,524.867
Multiyear Procurement												
Gross Cost (P-1)		740.648	1,138.064	1,097.682	1,106.113	1,139.997						5,222.504
Less PY Adv Procurement		79.052	139.404	137.481	138.979	148.023						642.939
Net Procurement(=P-1)		661.596	998.660	960.201	967.134	991.974						4,579.565
Advance Procurement												
For FY07	79.052											
For FY08		139.404										
For FY09		22.800	114.681									
For FY10		14.800	9.250	114.929								
For FY11		7.600	9.500	9.500	121.423							
Plus CY Adv Procurement	79.052	184.604	133.431	124.429	121.423							642.939
Weapon System Cost	79.052	846.200	1,132.091	1,084.630	1,088.557	991.974						5,222.504
Multiyear Savings($)	0.000	(0.379)	70.148	76.638	86.985	68.971						302.363
Multiyear Savings (%) (total only)												5.47%
Cancellation Ceiling-Funded												
Cancellation Ceiling-Unfunded												
Outlays												
Annual	14.686	196.156	660.526	1001.647	1105.096	1136.935	901.286	347.402	110.736	50.397	0.000	5,524.867
Multiyear	14.686	196.226	647.717	952.643	1035.586	1060.562	840.711	324.216	103.036	47.121	0.000	5,222.504
Savings	0.000	(0.070)	12.809	49.004	69.510	76.373	60.575	23.186	7.700	3.276	0.000	302.363
Remarks:												

Exhibit MYP-2, Total Program Funding Plan							Date February, 2005					
Appropriation/Budget Activity							P-1 Line Item Nomenclature					
Aircraft Procurement Navy/Airlift/Aircraft, (BA-2)							**Navy MH-60S MYP**					
	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	Total
Procurement Quantity		26	26	26	17	15						110
Annual Procurement												
Gross Cost		708.13	693.47	793.10	576.44	530.46						3,301.60
Less PY Adv Procurement		(125.86)	(130.20)	(132.43)	(89.07)	(80.19)						(557.75)
Net Procurement (=P-1)		582.28	563.27	660.67	487.37	450.27						2,743.85
Advance Procurement												
For FY 2007	123.98											
For FY 2008	1.72	128.48										
For FY 2009			132.43									
For FY 2010				89.07								
For FY 2011					80.19							
Plus CY Adv Procurement	125.70	128.48	132.43	89.07	80.19							555.87
Weapon System Cost	125.70	710.76	695.70	749.74	567.56	450.27						3,299.72
Multiyear Procurement												
Gross Cost (P-1)		686.94	671.87	770.90	561.14	516.17						3,207.02
Less PY Adv Procurement		(116.73)	(116.60)	(121.78)	(83.21)	(80.28)						(518.60)
Net Procurement (=P-1)		570.20	555.28	649.12	477.93	435.89						2,688.42
Advance Procurement												
For FY 2007	115.38											115.38
For FY 2008	4.35	111.72										116.07
For FY 2009	2.63	2.89	116.26									121.78
For FY 2010	1.72	1.89	1.91	77.69								83.21
For FY 2011	1.62	1.67	1.68	0.90	74.41							80.28
Plus CY Adv Procurement	125.70	118.16	119.85	78.59	74.41							516.72
Weapon System Cost	125.70	688.37	675.13	727.72	552.34	435.89						3,205.14
Multiyear Savings ($)		22.39	20.56	22.03	15.21	14.38						94.58
Cancellation Ceiling - Funded	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Cancellation Ceiling - Unfunded	0.00	0.00	0.00	0.00	0.00	0.00						0.00
OUTLAYS												
Annual	20.11	163.37	432.54	631.04	658.06	610.72	449.72	225.21	67.08	31.51	10.36	3,299.72
Multiyear	20.11	159.79	420.40	612.18	638.98	593.19	436.48	218.31	65.10	30.58	10.03	3,205.14
Savings	0.00	3.58	12.13	18.86	19.08	17.54	13.24	6.91	1.98	0.94	0.33	94.58

Remarks:

Numbers may be off due to rounding

Annual AP scenario includes CC MYP EOQ

Quantities as represented in PB06 Budget

Current MH-60S Budgets assume MYP strategy already, if no MYP then Annual Budget will need additional funding.

All numbers are in millions, except where noted.

Assumes concurrent production with MH-60R.

Exhibit MYP-2 Program Funding Plan					Date: February, 2005							
Appropriation (Treasury) Code/CC/BA/BSA/Item Control No: **Aircraft Procurement Army/Aircraft Procurement Navy/Airlift/Aircraft**					P-1 Line Item Nomenclature: **Army UH-60M BLACKHAWK(MYP)/Navy MH-60S MYP**							
	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	Total
Procurement Quantity		71	106	102	91	91						461
Annual Procurement												
Gross Cost		1,489.930	1,900.337	1,955.322	1,745.440	1,735.438						8,826.467
Less PY Adv Procurement		204.912	273.273	270.875	226.561	224.223						1,199.844
Net Procurement(=P-1)		1,285.028	1,627.064	1,684.447	1,518.879	1,511.215						7,626.633
Plus CY Adv Procurement	204.752	271.553	270.875	226.561	224.223							1,197.964
Weapon System Cost	204.752	1,556.581	1,897.939	1,911.008	1,743.102	1,511.215						8,824.597
Multiyear Procurement												
Gross Cost (P-1)		1,427.588	1,809.934	1,868.582	1,667.253	1,656.167						8,429.524
Less PY Adv Procurement		195.782	256.004	259.261	222.189	228.303						1,161.539
Net Procurement(=P-1)		1,231.796	1,553.940	1,609.321	1,445.064	1,427.864						7,267.985
Advance Procurement												
For FY07	194.432											
For FY08	4.350	251.124										
For FY09	2.630	25.690	230.941									
For FY10	1.720	16.690	11.160	192.619								
For FY11	1.620	9.270	11.180	10.400	195.833							
Plus CY Adv Procurement	204.752	302.764	253.281	203.019	195.833							1,159.659
Weapon System Cost	204.752	1,534.570	1,807.221	1,812.350	1,640.897	1,427.864						8,427.644
Multiyear Savings($)	0.000	22.011	90.708	98.668	102.195	83.351						396.943
Multiyear Savings (%) (total only)												4.50%
Cancellation Ceiling-Funded												
Cancellation Ceiling-Unfunded												
Outlays												
Annual	34.796	359.526	1093.066	1632.687	1763.156	1747.655	1351.006	572.612	177.816	81.907	10.360	8,824.587
Multiyear	34.796	356.016	1068.117	1564.823	1674.566	1653.752	1277.191	542.526	168.136	77.701	10.030	8,427.644
Savings	0.000	3.510	24.939	67.864	88.590	93.913	73.815	30.096	9.680	4.216	0.330	396.943

Remarks: See remarks on individual service submissions.

Exhibit MYP-3 Contract Funding Plan					Date: February, 2005							
Appropriation (Treasury) Code/CC/BA/BSA/Item Control No:					P-1 Line Item Nomenclature							
Aircraft Procurement Army (P1100)					**Army UH-60M BLACKHAWK(MYP)**							
	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	Total
Procurement Quantity		45	80	76	74	76						351
Annual Procurement												
Gross Cost		604.028	921.772	878.631	891.242	914.872						4,210.545
Less PY Adv Procurement		37.357	67.669	65.564	65.112	68.210						303.912
Net Procurement(=P-1)		566.671	854.103	813.067	826.130	846.662						3,906.633
Plus CY Adv Procurement	37.357	67.669	65.564	65.112	68.210							303.912
Contract Price	37.357	634.340	919.667	878.179	894.340	846.662						4,210.545
Multiyear Procurement												
Gross Cost (P-1)		562.876	852.969	814.091	828.355	849.891						3,908.182
Less PY Adv Procurement		37.357	64.000	64.600	66.600	72.200						304.757
Net Procurement(=P-1)		525.519	788.969	749.491	761.755	777.691						3,603.425
Advance Procurement												
For FY07	37.357											
For FY08		64.000										
For FY09		22.800	41.800									
For FY10		14.800	9.250	42.550								
For FY11		7.600	9.500	9.500	45.600							
Plus CY Adv Procurement	37.357	109.200	60.550	52.050	45.600							304.757
Contract Price	37.357	634.719	849.519	801.541	807.355	777.691						3,908.182
Multiyear Savings($)	0.000	(0.379)	70.148	76.638	86.985	68.971						302.363
Multiyear Savings (%) (total only)												7.18%
Cancellation Ceiling-Funded												
Cancellation Ceiling-Unfunded												
Outlays												
Annual	6.940	136.206	493.936	760.381	837.648	870.956	705.302	272.666	86.292	40.218	0.000	4,210.545
Multiyear	6.940	136.276	481.127	711.377	768.138	794.583	644.727	249.480	78.592	36.942	0.000	3,908.182
Savings	0.000	(0.070)	12.809	49.004	69.510	76.373	60.575	23.186	7.700	3.276	0.000	302.363

Proposed contract includes Hardware, System Project Management and Data, Sustaining Engineering, and anticipated on line aircraft modifications.

Exhibit MYP-3, Contract Funding Plan							Date February, 05					
Appropriation/Budget Activity **Aircraft Procurement Navy/Airlift/Aircraft, (BA-2)**							P-1 Line Item Nomenclature **Navy MH-60S MYP**					
	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	Total
Procurement Quantity		26	26	26	17	15						110
Annual Procurement												
Gross Cost		372.45	382.28	392.39	270.14	248.08						1,665.33
Less PY Adv Procurement		(55.06)	(58.88)	(60.55)	(37.20)	(32.11)						(243.80)
Net Procurement (=P-1)		317.39	323.40	331.83	232.94	215.96						1,421.53
Plus CY Adv Procurement	55.06	58.88	60.55	37.20	32.11							243.80
Contract Price	55.06	376.27	383.95	369.03	265.05	215.96						1,665.33
Multiyear Procurement												
Gross Cost (P-1)		351.25	360.69	370.19	254.84	233.79						1,570.75
Less PY Adv Procurement		(46.46)	(45.28)	(49.90)	(31.33)	(32.21)						(205.18)
Net Procurement (=P-1)		304.79	315.41	320.29	223.51	201.58						1,365.58
Advance Procurement												
For FY 2007	46.46											46.46
For FY 2008	2.63	42.64										45.27
For FY 2009	2.63	2.89	44.38									49.90
For FY 2010	1.72	1.89	1.91	25.81								31.33
For FY 2011	1.62	1.67	1.68	0.90	26.33							32.20
Plus CY Adv Procurement	55.06	49.09	47.98	26.72	26.33							205.18
Contract Price	55.06	353.88	363.39	347.01	249.84	201.58						1,570.75
Multiyear Savings ($)	0.00	22.39	20.56	22.03	15.21	14.38						94.58
Multiyear Savings (%)												5.68%
Cancellation Ceiling - Funded	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Cancellation Ceiling - Unfunded	0.00	0.00	0.00	0.00	0.00	0.00						0.00
OUTLAYS												
Annual	8.81	81.95	227.79	335.11	336.27	297.43	216.82	109.14	32.10	14.95	4.97	1,665.33
Multiyear	8.81	78.37	215.65	316.26	317.19	279.89	203.58	102.23	30.12	14.01	4.64	1,570.75
Savings	0.00	3.58	12.13	18.86	19.08	17.54	13.24	6.91	1.98	0.94	0.33	94.58

Remarks:
Numbers may be off due to rounding
Quantities as represented in PB06 Budget.
Current MH-60S Budgets assume MYP strategy already, if no MYP then Annual Budget will need additional funding.
All numbers are in millions.
Assumes concurrent production with MH-60R.

Exhibit MYP-3 Contract Funding Plan					Date: February, 2005							
Appropriation (Treasury) Code/CC/BA/BSA/Item Control No:					P-1 Line Item Nomenclature							
Aircraft Procurement Army/Aircraft Procurement Navy/Airlift/Aircraft					**Army UH-60M BLACKHAWK(MYP)/Navy MH-60S MYP**							
	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	Total
Procurement Quantity		71	106	102	91	91						461
Annual Procurement												
Gross Cost		976.478	1,304.052	1,271.021	1,161.382	1,162.952						5,875.875
Less PY Adv Procurement		92.417	126.549	126.114	102.312	100.320						547.712
Net Procurement(=P-1)		884.061	1,177.503	1,144.897	1,059.070	1,062.622						5,328.163
Plus CY Adv Procurement	92.417	126.549	126.114	102.312	100.320							547.712
Contract Price	92.417	1,010.610	1,303.617	1,247.209	1,159.390	1,062.622						5,875.875
Multiyear Procurement												
Gross Cost (P-1)		914.126	1,213.659	1,184.281	1,083.195	1,083.681						5,478.932
Less PY Adv Procurement		83.817	109.280	114.500	97.930	104.410						509.937
Net Procurement(=P-1)		830.309	1,104.379	1,069.781	985.265	979.271						4,969.005
Advance Procurement												
For FY07	83.817											
For FY08	2.630	106.640										
For FY09	2.630	22.200	86.180									
For FY10	1.720	14.200	11.160	68.360								
For FY11	1.620	7.300	11.180	10.400	71.93							
Plus CY Adv Procurement	92.417	158.290	108.530	78.770	71.930							509.937
Contract Price	92.417	988.599	1212.909	1148.551	1057.195	979.271						5,478.932
Multiyear Savings($)	0.000	22.011	90.708	98.668	102.195	83.351						396.943
Multiyear Savings (%) (total only)												6.76%
Cancellation Ceiling-Funded												
Cancellation Ceiling-Unfunded												
Outlays												
Annual	15.750	218.156	721.726	1,095.491	1,173.918	1,168.386	922.122	381.806	118.392	55.168	4.970	5,875.875
Multiyear	15.750	214.646	696.777	1,027.637	1,085.328	1,074.473	848.307	351.710	108.712	50.952	4.640	5,478.932
Savings	0.000	3.510	24.939	67.864	88.590	93.913	73.815	30.096	9.680	4.216	0.330	396.943

Remarks: See remarks on individual service submissions.

Exhibit MYP-4 Present Value Analysis					Date: February, 2005							
Approprition (Treasury) Code/CC/BA/BSA/Item Control No:					P-1 Line Item Nomenclature							
Aircraft Procurement Army (P1100)					**Army UH-60M BLACKHAWK(MYP)**							
	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	Total
Annual Proposal												
Then Year Cost	6.940	136.206	493.936	760.381	837.648	870.956	705.302	272.666	86.292	40.218		4,210.545
Constant Year Cost	6.837	131.944	469.566	708.716	765.395	780.217	619.447	234.794	72.845	33.285		3,823.046
Present Value	6.734	126.046	435.100	636.923	667.195	659.673	508.008	186.779	56.200	24.907		3,307.565
Multiyear Proposal												
Then Year Cost	6.940	136.276	481.127	711.377	768.138	794.583	644.727	249.480	78.592	36.942		3,908.182
Constant Year Cost	6.837	132.012	457.389	663.041	701.880	711.801	566.245	214.828	66.345	30.574		3,550.952
Present Value	6.734	126.111	423.817	595.875	611.829	601.828	464.378	170.896	51.185	22.879		3,075.532
Difference												
Then Year Cost	0.000	(0.070)	12.809	49.004	69.510	76.373	60.575	23.186	7.700	3.276		302.363
Constant Year Cost	0.000	(0.068)	12.177	45.675	63.515	68.416	53.202	19.966	6.500	2.711		272.094
Present Value	0.000	(0.065)	11.283	41.048	55.366	57.845	43.630	15.883	5.015	2.028		232.033

Remarks: Constant Year Dollars are Fiscal Year 2005. Inflation factors and outlay rates reflect January, 2004 OSD projections. Discount rate of 3.1% was applied to the constant dollar outlays, and assumes uniform outlays throughout the fiscal year (midyear factors).

Exhibit MYP-4, Present Value Analysis							Date: February, 2005					
Appropriation/Budget Activity **Aircraft Procurement Navy/Airlift/Aircraft, (BA-2)**							P-1 Line Item Nomenclature **Navy MH-60S MYP**					
Annual Proposal	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Total
Then Year Cost	8.81	81.95	227.79	335.11	336.27	297.43	216.82	109.14	32.10	14.95	4.97	1,665.33
Constant Year Cost	8.81	80.83	222.71	323.81	319.77	278.49	200.49	100.30	29.61	13.67	4.50	1,582.99
Present Value	8.81	79.72	215.55	308.47	301.10	259.07	183.72	89.96	25.73	11.66	3.77	1,487.55
Multiyear Procurement												
Then Year Cost	8.81	78.37	215.65	316.26	317.19	279.89	203.58	102.23	30.12	14.01	4.64	1,570.75
Constant Year Cost	8.81	77.31	210.86	305.59	301.64	262.09	188.26	93.96	27.79	12.81	4.20	1,493.33
Present Value	8.81	76.23	204.07	291.11	284.02	243.79	172.50	84.26	24.15	10.93	3.52	1,403.39
Difference												
Then Year Cost	0.00	3.58	12.13	18.86	19.08	17.54	13.24	6.91	1.98	0.94	0.33	94.58
Constant Year Cost	0.00	3.52	11.85	18.22	18.13	16.41	12.23	6.34	1.82	0.86	0.30	89.66
Present Value	0.00	3.49	11.48	17.36	17.08	15.27	11.22	5.69	1.59	0.73	0.25	84.16

Remarks:
Numbers may be off due to rounding
Quantities as represented in PB06 Budget.
Current MH-60S Budgets assume MYP strategy already, if no MYP then Annual Budget will need additional funding.
All numbers are in millions.
Assumes concurrent production with MH-60R.

Exhibit MYP-4 Present Value Analysis					Date: February, 2005							
Appropriation (Treasury) Code/CC/BA/BSA/Item Control No:					P-1 Line Item Nomenclature							
Aircraft Procurement Army/Aircraft Procurement Navy/Airlift/Aircraft					**Army UH-60M BLACKHAWK(MYP)/Navy MH-60S MYP**							
	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	Total
Annual Proposal												
Then Year Cost	15.750	218.156	721.726	1095.491	1173.918	1168.386	922.122	381.806	118.392	55.168	4.970	5,875.875
Constant Year Cost	15.647	212.774	692.276	1032.526	1085.165	1058.707	819.937	335.094	102.455	46.955	4.500	5,406.036
Present Value	15.544	205.766	650.650	945.393	968.295	918.743	691.728	276.739	81.930	36.567	3.770	4,795.115
Multiyear Proposal												
Then Year Cost	15.750	214.646	696.777	1027.637	1085.328	1074.473	848.307	351.710	108.712	50.952	4.640	5,478.932
Constant Year Cost	15.647	209.322	668.249	968.631	1003.520	973.891	754.505	308.788	94.135	43.384	4.200	5,044.282
Present Value	15.544	202.341	627.887	886.985	895.849	845.618	636.878	255.156	75.335	33.809	3.520	4,478.922
Difference												
Then Year Cost	0.000	3.510	24.939	67.864	88.590	93.913	73.815	30.096	9.680	4.216	0.330	396.943
Constant Year Cost	0.000	3.452	24.027	63.895	81.645	84.826	65.432	26.306	8.320	3.571	0.300	361.754
Present Value	0.000	3.425	22.763	58.408	72.446	73.115	54.850	21.573	6.605	2.758	0.250	316.193

Remarks: See remarks on individual service submissions.

Exhibit MYP-1, Multiyear Procurement Criteria

Program: UH-60M BLACK HAWK/MH-60S SEAHAWK AIRFRAME

1. Multiyear Procurement Description:

This package represents the procurement of 351 UH-60M BLACK HAWK aircraft and 110 MH-60S SEAHAWK with an option for approximately 141 MH-60R SEAHAWK aircraft on a five year airframe contract over the period FY07-11. The Navy MH-60S aircraft are essentially the same configuration as those procured on the FY02-06 joint multiyear contract with the UH-60L BLACK HAWK. The Army UH-60M aircraft are based on the UH-60L, but are being modified via ECP. All requirements for these aircraft are funded in the FY06 President's Budget and will be included in the base contract quantity. Option prices for mission kits, services, and additional aircraft to cover FMS and other service requirements will also be negotiated. The Navy is also considering adding the production of MH-60R model aircraft to this contract, at a rate of 25-30 per year. This will further increase the economic benefits of a multiyear contract. In the event of a significant delay in either service's program, the multiyear contract will include mechanisms which will allow for the award of a single service multiyear contract, which can be converted to a multi-service multiyear contract at the Government's discretion. These exhibits are intended to satisfy initial congressional notification requirements necessary to obtain multiyear contract authorization for the UH-60M BLACK HAWK and MH-60S SEAHAWK. It is intended that exhibits will be provided in the FY07 President's Budget for the MH-60R. An update will be provided 30 days prior to the proposed contract award. The U.S. Army /Navy proposes the UH-60M BLACK HAWK/MH-60S SEAHAWK with options for the MH-60R helicopter system (airframe) as a multiyear contract for FY07-11 since it satisfies each of the elements of the criteria as indicated below:

2. Benefit to the Government:

a. Substantial Cost Avoidance:

Exhibit MYP-1, Multiyear Procurement Criteria

Program: UH-60M BLACK HAWK/MH-60S SEAHAWK AIRFRAME

(1) Based on a comparison of the estimated prices for five single year contracts to the estimated price for one five year multiyear for the UH-60M airframe over the period FY07-11, there is a cost avoidance of approximately $302.4 million for multiyear contracting over single year contracting. Based on a comparison of estimated prices for five single year contracts to the estimated price for one five year multiyear for the MH-60S airframes over the period FY07-11, there is a cost avoidance of approximately $94.6 million for the multiyear contracting for the MH-60S over single year contracting. The current UH-60M and MH-60S budgets are based on a follow-on multiyear contract beginning in FY07.

(2) Where possible, alternate sources have been found for parts in order to encourage competition and reduce costs. Alternate suppliers are interested in providing bids and making significant investments only as a result of the long-term stability provided by the multiyear. Some components have minimum buy quantities, which may not be met under single year procurements, driving up unit costs as the total cost is artificially high. Multiyear procurement quantities will allow the prime contractor and subcontractors at all tiers to exceed minimum order quantities resulting in reduced costs for these components. Typically suppliers will provide price discounts to lock in business. Given a five year contract, suppliers will have greater total business and greater stability. Therefore, they will be capable of finding innovative processes and be able to justify capital investments necessary to reduce costs. Some of these cost reductions will be passed on to the customer in the form of price reductions. In addition, to these types of process innovations and capital investments, competition is expected to be greater based on larger purchase volumes.

(3) Administrative costs are reduced since there is only one proposal, negotiation, and purchase order instead of a string of five single year procurement actions. These costs are reduced to the prime contractor, since

they have only one contract to negotiate with the government vice five. Prime contractor costs will also be reduced, as subcontracts at all tiers will only be entered into once. Some suppliers include proposal preparation and negotiation as a direct charge to the purchase order; in these cases a dollar for dollar reduction will be realized as a result of the single proposal action. Additional administrative reduction is realized in production planning. Production line administrative processes will only be performed once, rather than five times under single year procurement, resulting in significant cost avoidance.

(4) The transition to a product development process based on electronic data is complete. Product data creation for new design is performed exclusively in a 3D CAD environment. Commitment to the constant improvement of the design technology is continuing under the Lean Digital Product Development project. New capabilities are being implemented of which many will be released during the new proposed multi year contract. These activities are part of a multi-million dollar project aimed at increasing engineering productivity by at least 25%, reducing the cost of quality, and enabling design collaboration with suppliers. Once again the business base created by the multiyear procurement justified the original investment and will be necessary for continued significant investment in this critical area.

(5) The prime contractor sets the standard for the vendors that support his contract commitments and as new processes and innovations are implemented at the prime facility, the vendors are encouraged to adopt those elements that enhance their performance. The stability of long term commitments supported by multiyear contracts provides the collateral required to support their financial investments.

(6) New training programs for first time subcontractors will be initiated on an as required basis, especially in the highly skilled trades areas. Existing training programs for Sikorsky and its major subcontractors

will provide the ability to maintain a highly trained staff for a multiyear program, because it will allow a stable employment base.

(7) Use of Vendor Multiyear Contracts: Subcontractors are receiving purchase orders for the total quantity authorized for the prime contract.

b. Stability of Requirement: The UH-60M BLACK HAWK is one of the core aviation programs and is approved for procurement by the Army through FY11. The minimum need for the UH-60M BLACK HAWK is not expected to decrease during the contemplated contract period, as the requirement for over 1800 replacement aircraft will support a production line well into the 2020s. The Navy initiated its procurement of the MH-60S in FY99, with a requirement to buy an average of 20 aircraft per year for a total of 271 aircraft. The MH-60S SEAHAWK aircraft support U.S. Navy Helo Concept of Operations (CONOPS) and are approved for procurement by the Navy through FY11. The Navy's total MH-60S requirement is set forth in the Chief of Naval Operations approved Navy Helo CONOPS plan of 2002 and is a key component in the modernization and recapitalization of the Naval Helicopter force through 2020.

c. Stability of Funding: The funding for the UH-60M and MH-60S programs is stable. The Army has consistently included funding for the BLACK HAWK in all budget submissions. Congressional action has provided funds above the President's Budget for UH-60 aircraft in the current multiyear contract in each of the last four years by 10 in FY02, 7 in FY03, 9 in FY04, and 6 in FY05. The Navy has consistently provided funding for the MH-60S program. DoD funding in the FY 06 President's Budget supports the procurement of a minimum of 60 aircraft per year. The success of the prior six multiyear contracts for the UH-60A/L and the prior multiyear

contract for MH-60S has provided the confidence in the programs to obtain full support by all levels of the budget process.

d. Stable Configuration: The UH-60 will be in the thirty-first year and the MH-60S will be in the sixth year of full-rate production in FY07 and will be produced in basically the same configurations that have been utilized over the prior thirty years and six years respectively. There have been configuration changes during that period to allow for changing mission requirements or to improve on the producibility or reliability of the system. Similar configuration changes will be included under this contract, bringing it to the upgraded UH-60M configuration. The proposed contract will procure two distinct service configurations—the Army UH-60M and Navy MH-60S with options for a third distinct configuration, the MH-60R. Commonality between the three configurations is substantial.

e. Realistic Cost Estimate: The procurement cost estimate for the UH-60M/MH-60S program is realistic. The current procurement cost estimate is based on negotiated FY02-06 multiyear prices, UH-60M LRIP proposal data and UH-60M contract experience (36 months on contract). The third prototype aircraft under this contract is a new production UH-60M. The contract will be a Firm Fixed Price (FFP) contract with no unfunded cancellation ceiling.

f. National Security: As a principle element of the Defense Planning Guidance, the Department of the Navy developed its Transformation Roadmap. The Roadmap describes the key naval concepts, capabilities, initiatives, processes and programs that will guide the transformation efforts of the Navy. Naval transformation will support joint transformation by delivering new military capabilities that will greatly expand the sovereign options available to joint force commanders to project power, assure access, and protect and advance America's interests worldwide

in the face of emergent threat technologies and strategies. One of these naval concepts is Sea Shield. Sea Shield permits the joint force to operate effectively despite adversary efforts to deny theater access to U.S. forces. It achieves these goals by exploiting global sea control to defeat area denial threats including aircraft, missiles, small littoral surface combatants, mines, and submarines. Concepts and capabilities are being developed to counter the threats from quiet diesel submarines operating near the coast and mines in and beyond the surf zone. Key components that will provide these capabilities are the MH-60 Seahawk aircraft. Section III of the Defense Planning Guidance, FY 1999-2003, dated 2 July 1997, states that readiness and sustainability remain the top priorities of the Department of Defense. A flexible vertical replenishment at-sea capability is vital to these objectives.

3. Breakout of Cost Avoidance: (Details are contained in MYP2-4)

	$ in Millions	$ in Millions
	Army	Navy
Inflation	$27.0M	$4.9M
Vendor Procurement	91.8	34.1
Manufacturing	119.1	47.4
Design/Engineering	16.7	5.4
Other	47.8	2.8
Total	302.4	94.6

4. Advantages of the MYP: A Multi-service multiyear contract results in a significant cost avoidance ($397.0M) over a single year approach, eliminates duplicative project management costs, maintains the capability to produce additional aircraft to meet the needs of mobilization and FMS sales, and maintains an industrial base necessary to meet the production requirements of current and future helicopter systems.

5. Impact on Industrial Base:

Implementation of this proposed MYP will yield a favorable impact on the industrial base. The stability afforded by the use of a multiyear procurement will allow the prime contractor to enter into long term agreements with suppliers, at every tier, which provide substantial cost avoidance.

Significant competition at the subcontractor level is expected as a result of the proposed five year FY07-11 airframe multiyear contracting strategy. Competitive bids are expected to be at an annual rate of approximately 45 percent. Every opportunity to encourage dual sourcing at the subcontractor level will be pursued. The first tier subcontractor plan will be structured to encourage competition at the second tier supplier level, indicating full utilization of small and disadvantaged businesses. While significant supplier downsizing and consolidation have occurred due to a general reduction in spending, multiyear contracting will produce acceptable supplier pricing due to the stable business base.

Production Capacity: Present tooling can produce approximately 17 aircraft per month by the prime contractor. This capacity is more than adequate to accommodate the FY07-11 airframe multiyear contract requirements.

Exhibit MYP-1, Multiyear Procurement Criteria

Program: UH-60M BLACK HAWK/MH-60S SEAHAWK AIRFRAME

6. Multiyear Procurement Summary:

Army	**ANNUAL CONTRACTS**	**MYP ALTERNATIVE**
Quantity	351	351
Total Contract Price	$4,210.6M	$3,908.2
Cancellation Ceiling	$0.0	$0.0
$ Cost Avoidance Over Annual		$302.4
% Cost Avoidance Over Annual		7.2%

Navy	**ANNUAL CONTRACTS**	**MYP ALTERNATIVE**
Quantity	110	110
Total Contract Price	$1,665.3M	$1,570.7M
Cancellation Ceiling	$0.0	$0.0
$ Cost Avoidance Over Annual		$94.6
% Cost Avoidance Over Annual		5.7%

Note: Numbers may be off due to rounding.

Exhibit MYP-2 Program Funding Plan					Date: February, 2005							
Appropriation (Treasury) Code/CC/BA/BSA/Item Control No: **Aircraft Procurement Army (P1100)**					P-1 Line Item Nomenclature: **Army UH-60M BLACKHAWK(MYP)**							
	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	Total
Procurement Quantity		45	80	76	74	76						351
Annual Procurement												
Gross Cost		781.800	1,206.867	1,162.222	1,169.000	1,204.978						5,524.867
Less PY Adv Procurement		79.052	143.073	138.445	137.491	144.033						642.094
Net Procurement(=P-1)		702.748	1,063.794	1,023.777	1,031.509	1,060.945						4,882.773
Plus CY Adv Procurement	79.052	143.073	138.445	137.491	144.033							642.094
Weapon System Cost	79.052	845.821	1,202.239	1,161.268	1,175.542	1,060.945						5,524.867
Multiyear Procurement												
Gross Cost (P-1)		740.648	1,138.064	1,097.682	1,106.113	1,139.997						5,222.504
Less PY Adv Procurement		79.052	139.404	137.481	138.979	148.023						642.939
Net Procurement(=P-1)		661.596	998.660	960.201	967.134	991.974						4,579.565
Advance Procurement												
For FY07	79.052											
For FY08		139.404										
For FY09		22.800	114.681									
For FY10		14.800	9.250	114.929								
For FY11		7.600	9.500	9.500	121.423							
Plus CY Adv Procurement	79.052	184.604	133.431	124.429	121.423							642.939
Weapon System Cost	79.052	846.200	1,132.091	1,084.630	1,088.557	991.974						5,222.504
Multiyear Savings($)	0.000	(0.379)	70.148	76.638	86.985	68.971						302.363
Multiyear Savings (%) (total only)												5.47%
Cancellation Ceiling-Funded												
Cancellation Ceiling-Unfunded												
Outlays												
Annual	14.686	196.156	660.526	1001.647	1105.096	1136.935	901.286	347.402	110.736	50.397	0.000	5,524.867
Multiyear	14.686	196.226	647.717	952.643	1035.586	1060.562	840.711	324.216	103.036	47.121	0.000	5,222.504
Savings	0.000	(0.070)	12.809	49.004	69.510	76.373	60.575	23.186	7.700	3.276	0.000	302.363
Remarks:												

Exhibit MYP-2, Total Program Funding Plan							Date February, 2005					
Appropriation/Budget Activity							P-1 Line Item Nomenclature					
Aircraft Procurement Navy/Airlift/Aircraft, (BA-2)							**Navy MH-60S MYP**					
	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	Total
Procurement Quantity		26	26	26	17	15						110
Annual Procurement												
Gross Cost		708.13	693.47	793.10	576.44	530.46						3,301.60
Less PY Adv Procurement		(125.86)	(130.20)	(132.43)	(89.07)	(80.19)						(557.75)
Net Procurement (=P-1)		582.28	563.27	660.67	487.37	450.27						2,743.85
Advance Procurement												
For FY 2007	123.98											
For FY 2008	1.72	128.48										
For FY 2009			132.43									
For FY 2010				89.07								
For FY 2011					80.19							
Plus CY Adv Procurement	125.70	128.48	132.43	89.07	80.19							555.87
Weapon System Cost	125.70	710.76	695.70	749.74	567.56	450.27						3,299.72
Multiyear Procurement												
Gross Cost (P-1)		686.94	671.87	770.90	561.14	516.17						3,207.02
Less PY Adv Procurement		(116.73)	(116.60)	(121.78)	(83.21)	(80.28)						(518.60)
Net Procurement (=P-1)		570.20	555.28	649.12	477.93	435.89						2,688.42
Advance Procurement												
For FY 2007	115.38											115.38
For FY 2008	4.35	111.72										116.07
For FY 2009	2.63	2.89	116.26									121.78
For FY 2010	1.72	1.89	1.91	77.69								83.21
For FY 2011	1.62	1.67	1.68	0.90	74.41							80.28
Plus CY Adv Procurement	125.70	118.16	119.85	78.59	74.41							516.72
Weapon System Cost	125.70	688.37	675.13	727.72	552.34	435.89						3,205.14
Multiyear Savings ($)		22.39	20.56	22.03	15.21	14.38						94.58
Cancellation Ceiling - Funded	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Cancellation Ceiling - Unfunded	0.00	0.00	0.00	0.00	0.00	0.00						0.00
OUTLAYS												
Annual	20.11	163.37	432.54	631.04	658.06	610.72	449.72	225.21	67.08	31.51	10.36	3,299.72
Multiyear	20.11	159.79	420.40	612.18	638.98	593.19	436.48	218.31	65.10	30.58	10.03	3,205.14
Savings	0.00	3.58	12.13	18.86	19.08	17.54	13.24	6.91	1.98	0.94	0.33	94.58

Remarks:

Numbers may be off due to rounding

Annual AP scenario includes CC MYP EOQ

Quantities as represented in PB06 Budget

Current MH-60S Budgets assume MYP strategy already, if no MYP then Annual Budget will need additional funding.

All numbers are in millions, except where noted.

Assumes concurrent production with MH-60R.

Exhibit MYP-2 Program Funding Plan					Date: February, 2005							
Appropriation (Treasury) Code/CC/BA/BSA/Item Control No: **Aircraft Procurement Army/Aircraft Procurement Navy/Airlift/Aircraft**					P-1 Line Item Nomenclature: **Army UH-60M BLACKHAWK(MYP)/Navy MH-60S MYP**							
	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	Total
Procurement Quantity		71	106	102	91	91						461
Annual Procurement												
Gross Cost		1,489.930	1,900.337	1,955.322	1,745.440	1,735.438						8,826.467
Less PY Adv Procurement		204.912	273.273	270.875	226.561	224.223						1,199.844
Net Procurement(=P-1)		1,285.028	1,627.064	1,684.447	1,518.879	1,511.215						7,626.633
Plus CY Adv Procurement	204.752	271.553	270.875	226.561	224.223							1,197.964
Weapon System Cost	204.752	1,556.581	1,897.939	1,911.008	1,743.102	1,511.215						8,824.597
Multiyear Procurement												
Gross Cost (P-1)		1,427.588	1,809.934	1,868.582	1,667.253	1,656.167						8,429.524
Less PY Adv Procurement		195.782	256.004	259.261	222.189	228.303						1,161.539
Net Procurement(=P-1)		1,231.796	1,553.940	1,609.321	1,445.064	1,427.864						7,267.985
Advance Procurement												
For FY07	194.432											
For FY08	4.350	251.124										
For FY09	2.630	25.690	230.941									
For FY10	1.720	16.690	11.160	192.619								
For FY11	1.620	9.270	11.180	10.400	195.833							
Plus CY Adv Procurement	204.752	302.764	253.281	203.019	195.833							1,159.659
Weapon System Cost	204.752	1,534.570	1,807.221	1,812.350	1,640.897	1,427.864						8,427.644
Multiyear Savings($)	0.000	22.011	90.708	98.668	102.195	83.351						396.943
Multiyear Savings (%) (total only)												4.50%
Cancellation Ceiling-Funded												
Cancellation Ceiling-Unfunded												
Outlays												
Annual	34.796	359.526	1093.066	1632.687	1763.156	1747.655	1351.006	572.612	177.816	81.907	10.360	8,824.587
Multiyear	34.796	356.016	1068.117	1564.823	1674.566	1653.752	1277.191	542.526	168.136	77.701	10.030	8,427.644
Savings	0.000	3.510	24.939	67.864	88.590	93.913	73.815	30.096	9.680	4.216	0.330	396.943

Remarks: See remarks on individual service submissions.

Exhibit MYP-3 Contract Funding Plan					Date: February, 2005							
Appropriation (Treasury) Code/CC/BA/BSA/Item Control No:					P-1 Line Item Nomenclature							
Aircraft Procurement Army (P1100)					**Army UH-60M BLACKHAWK(MYP)**							
	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	Total
Procurement Quantity		45	80	76	74	76						351
Annual Procurement												
Gross Cost		604.028	921.772	878.631	891.242	914.872						4,210.545
Less PY Adv Procurement		37.357	67.669	65.564	65.112	68.210						303.912
Net Procurement(=P-1)		566.671	854.103	813.067	826.130	846.662						3,906.633
Plus CY Adv Procurement	37.357	67.669	65.564	65.112	68.210							303.912
Contract Price	37.357	634.340	919.667	878.179	894.340	846.662						4,210.545
Multiyear Procurement												
Gross Cost (P-1)		562.876	852.969	814.091	828.355	849.891						3,908.182
Less PY Adv Procurement		37.357	64.000	64.600	66.600	72.200						304.757
Net Procurement(=P-1)		525.519	788.969	749.491	761.755	777.691						3,603.425
Advance Procurement												
For FY07	37.357											
For FY08		64.000										
For FY09		22.800	41.800									
For FY10		14.800	9.250	42.550								
For FY11		7.600	9.500	9.500	45.600							
Plus CY Adv Procurement	37.357	109.200	60.550	52.050	45.600							304.757
Contract Price	37.357	634.719	849.519	801.541	807.355	777.691						3,908.182
Multiyear Savings($)	0.000	(0.379)	70.148	76.638	86.985	68.971						302.363
Multiyear Savings (%) (total only)												7.18%
Cancellation Ceiling-Funded												
Cancellation Ceiling-Unfunded												
Outlays												
Annual	6.940	136.206	493.936	760.381	837.648	870.956	705.302	272.666	86.292	40.218	0.000	4,210.545
Multiyear	6.940	136.276	481.127	711.377	768.138	794.583	644.727	249.480	78.592	36.942	0.000	3,908.182
Savings	0.000	(0.070)	12.809	49.004	69.510	76.373	60.575	23.186	7.700	3.276	0.000	302.363

Proposed contract includes Hardware, System Project Management and Data, Sustaining Engineering, and anticipated on line aircraft modifications.

Exhibit MYP-3, Contract Funding Plan							Date February, 05					
Appropriation/Budget Activity **Aircraft Procurement Navy/Airlift/Aircraft, (BA-2)**							P-1 Line Item Nomenclature **Navy MH-60S MYP**					
	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	Total
Procurement Quantity		26	26	26	17	15						110
Annual Procurement												
Gross Cost		372.45	382.28	392.39	270.14	248.08						1,665.33
Less PY Adv Procurement		(55.06)	(58.88)	(60.55)	(37.20)	(32.11)						(243.80)
Net Procurement (=P-1)		317.39	323.40	331.83	232.94	215.96						1,421.53
Plus CY Adv Procurement	55.06	58.88	60.55	37.20	32.11							243.80
Contract Price	55.06	376.27	383.95	369.03	265.05	215.96						1,665.33
Multiyear Procurement												
Gross Cost (P-1)		351.25	360.69	370.19	254.84	233.79						1,570.75
Less PY Adv Procurement		(46.46)	(45.28)	(49.90)	(31.33)	(32.21)						(205.18)
Net Procurement (=P-1)		304.79	315.41	320.29	223.51	201.58						1,365.58
Advance Procurement												
For FY 2007	46.46											46.46
For FY 2008	2.63	42.64										45.27
For FY 2009	2.63	2.89	44.38									49.90
For FY 2010	1.72	1.89	1.91	25.81								31.33
For FY 2011	1.62	1.67	1.68	0.90	26.33							32.20
Plus CY Adv Procurement	55.06	49.09	47.98	26.72	26.33							205.18
Contract Price	55.06	353.88	363.39	347.01	249.84	201.58						1,570.75
Multiyear Savings ($)	0.00	22.39	20.56	22.03	15.21	14.38						94.58
Multiyear Savings (%)												5.68%
Cancellation Ceiling - Funded	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Cancellation Ceiling - Unfunded	0.00	0.00	0.00	0.00	0.00	0.00						0.00
OUTLAYS												
Annual	8.81	81.95	227.79	335.11	336.27	297.43	216.82	109.14	32.10	14.95	4.97	1,665.33
Multiyear	8.81	78.37	215.65	316.26	317.19	279.89	203.58	102.23	30.12	14.01	4.64	1,570.75
Savings	0.00	3.58	12.13	18.86	19.08	17.54	13.24	6.91	1.98	0.94	0.33	94.58

Remarks:
Numbers may be off due to rounding
Quantities as represented in PB06 Budget.
Current MH-60S Budgets assume MYP strategy already, if no MYP then Annual Budget will need additional funding.
All numbers are in millions.
Assumes concurrent production with MH-60R.

Exhibit MYP-3 Contract Funding Plan					Date: February, 2005							
Appropriation (Treasury) Code/CC/BA/BSA/Item Control No:					P-1 Line Item Nomenclature							
Aircraft Procurement Army/Aircraft Procurement Navy/Airlift/Aircraft					**Army UH-60M BLACKHAWK(MYP)/Navy MH-60S MYP**							
	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	Total
Procurement Quantity		71	106	102	91	91						461
Annual Procurement												
Gross Cost		976.478	1,304.052	1,271.021	1,161.382	1,162.952						5,875.875
Less PY Adv Procurement		92.417	126.549	126.114	102.312	100.320						547.712
Net Procurement(=P-1)		884.061	1,177.503	1,144.897	1,059.070	1,062.622						5,328.163
Plus CY Adv Procurement	92.417	126.549	126.114	102.312	100.320							547.712
Contract Price	92.417	1,010.610	1,303.617	1,247.209	1,159.390	1,062.622						5,875.875
Multiyear Procurement												
Gross Cost (P-1)		914.126	1,213.659	1,184.281	1,083.195	1,083.681						5,478.932
Less PY Adv Procurement		83.817	109.280	114.500	97.930	104.410						509.937
Net Procurement(=P-1)		830.309	1,104.379	1,069.781	985.265	979.271						4,969.005
Advance Procurement												
For FY07	83.817											
For FY08	2.630	106.640										
For FY09	2.630	22.200	86.180									
For FY10	1.720	14.200	11.160	68.360								
For FY11	1.620	7.300	11.180	10.400	71.93							
Plus CY Adv Procurement	92.417	158.290	108.530	78.770	71.930							509.937
Contract Price	92.417	988.599	1212.909	1148.551	1057.195	979.271						5,478.932
Multiyear Savings($)	0.000	22.011	90.708	98.668	102.195	83.351						396.943
Multiyear Savings (%) (total only)												6.76%
Cancellation Ceiling-Funded												
Cancellation Ceiling-Unfunded												
Outlays												
Annual	15.750	218.156	721.726	1,095.491	1,173.918	1,168.386	922.122	381.806	118.392	55.168	4.970	5,875.875
Multiyear	15.750	214.646	696.777	1,027.637	1,085.328	1,074.473	848.307	351.710	108.712	50.952	4.640	5,478.932
Savings	0.000	3.510	24.939	67.864	88.590	93.913	73.815	30.096	9.680	4.216	0.330	396.943

Remarks: See remarks on individual service submissions.

Exhibit MYP-4 Present Value Analysis					Date: February, 2005							
Approprition (Treasury) Code/CC/BA/BSA/Item Control No:					P-1 Line Item Nomenclature							
Aircraft Procurement Army (P1100)					**Army UH-60M BLACKHAWK(MYP)**							
	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	Total
Annual Proposal												
Then Year Cost	6.940	136.206	493.936	760.381	837.648	870.956	705.302	272.666	86.292	40.218		4,210.545
Constant Year Cost	6.837	131.944	469.566	708.716	765.395	780.217	619.447	234.794	72.845	33.285		3,823.046
Present Value	6.734	126.046	435.100	636.923	667.195	659.673	508.008	186.779	56.200	24.907		3,307.565
Multiyear Proposal												
Then Year Cost	6.940	136.276	481.127	711.377	768.138	794.583	644.727	249.480	78.592	36.942		3,908.182
Constant Year Cost	6.837	132.012	457.389	663.041	701.880	711.801	566.245	214.828	66.345	30.574		3,550.952
Present Value	6.734	126.111	423.817	595.875	611.829	601.828	464.378	170.896	51.185	22.879		3,075.532
Difference												
Then Year Cost	0.000	(0.070)	12.809	49.004	69.510	76.373	60.575	23.186	7.700	3.276		302.363
Constant Year Cost	0.000	(0.068)	12.177	45.675	63.515	68.416	53.202	19.966	6.500	2.711		272.094
Present Value	0.000	(0.065)	11.283	41.048	55.366	57.845	43.630	15.883	5.015	2.028		232.033

Remarks: Constant Year Dollars are Fiscal Year 2005. Inflation factors and outlay rates reflect January, 2004 OSD projections. Discount rate of 3.1% was applied to the constant dollar outlays, and assumes uniform outlays throughout the fiscal year (midyear factors).

Exhibit MYP-4, Present Value Analysis							Date: February, 2005					
Appropriation/Budget Activity **Aircraft Procurement Navy/Airlift/Aircraft, (BA-2)**							P-1 Line Item Nomenclature **Navy MH-60S MYP**					
Annual Proposal	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Total
Then Year Cost	8.81	81.95	227.79	335.11	336.27	297.43	216.82	109.14	32.10	14.95	4.97	1,665.33
Constant Year Cost	8.81	80.83	222.71	323.81	319.77	278.49	200.49	100.30	29.61	13.67	4.50	1,582.99
Present Value	8.81	79.72	215.55	308.47	301.10	259.07	183.72	89.96	25.73	11.66	3.77	1,487.55
Multiyear Procurement												
Then Year Cost	8.81	78.37	215.65	316.26	317.19	279.89	203.58	102.23	30.12	14.01	4.64	1,570.75
Constant Year Cost	8.81	77.31	210.86	305.59	301.64	262.09	188.26	93.96	27.79	12.81	4.20	1,493.33
Present Value	8.81	76.23	204.07	291.11	284.02	243.79	172.50	84.26	24.15	10.93	3.52	1,403.39
Difference												
Then Year Cost	0.00	3.58	12.13	18.86	19.08	17.54	13.24	6.91	1.98	0.94	0.33	94.58
Constant Year Cost	0.00	3.52	11.85	18.22	18.13	16.41	12.23	6.34	1.82	0.86	0.30	89.66
Present Value	0.00	3.49	11.48	17.36	17.08	15.27	11.22	5.69	1.59	0.73	0.25	84.16

Remarks:
Numbers may be off due to rounding
Quantities as represented in PB06 Budget.
Current MH-60S Budgets assume MYP strategy already, if no MYP then Annual Budget will need additional funding.
All numbers are in millions.
Assumes concurrent production with MH-60R.

Exhibit MYP-4 Present Value Analysis					Date: February, 2005							
Appropriation (Treasury) Code/CC/BA/BSA/Item Control No:					P-1 Line Item Nomenclature							
Aircraft Procurement Army/Aircraft Procurement Navy/Airlift/Aircraft					**Army UH-60M BLACKHAWK(MYP)/Navy MH-60S MYP**							
	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	Total
Annual Proposal												
Then Year Cost	15.750	218.156	721.726	1095.491	1173.918	1168.386	922.122	381.806	118.392	55.168	4.970	5,875.875
Constant Year Cost	15.647	212.774	692.276	1032.526	1085.165	1058.707	819.937	335.094	102.455	46.955	4.500	5,406.036
Present Value	15.544	205.766	650.650	945.393	968.295	918.743	691.728	276.739	81.930	36.567	3.770	4,795.115
Multiyear Proposal												
Then Year Cost	15.750	214.646	696.777	1027.637	1085.328	1074.473	848.307	351.710	108.712	50.952	4.640	5,478.932
Constant Year Cost	15.647	209.322	668.249	968.631	1003.520	973.891	754.505	308.788	94.135	43.384	4.200	5,044.282
Present Value	15.544	202.341	627.887	886.985	895.849	845.618	636.878	255.156	75.335	33.809	3.520	4,478.922
Difference												
Then Year Cost	0.000	3.510	24.939	67.864	88.590	93.913	73.815	30.096	9.680	4.216	0.330	396.943
Constant Year Cost	0.000	3.452	24.027	63.895	81.645	84.826	65.432	26.306	8.320	3.571	0.300	361.754
Present Value	0.000	3.425	22.763	58.408	72.446	73.115	54.850	21.573	6.605	2.758	0.250	316.193

Remarks: See remarks on individual service submissions.

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: Feb 2005	
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy/BA-1**							P-1 ITEM NOMENCLATURE MH-60S Advance Procurement (MYP)					
Program Element for Code B Items: 0204453N							Other Related Program Elements None					
	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
COST (In Millions)	**$317.474**	A	**$94.125**	**$104.753**	**$125.698**	**$118.165**	**$119.855**	**$78.591**	**$74.408**	**$109.338**	**$144.306**	**$1,286.713**

MISSION AND DESCRIPTION:

The Helicopter Combat Support (HC) mission of the MH 60S is to maintain forward deployed fleet sustainability through rapid airborne delivery of materials and personnel and to support amphibious operations through search and rescue coverage. The primary roles of the aircraft are to conduct vertical replenishment (VERTREP), day/night ship-to-ship, ship-to-shore, and shore-to-ship external transfer of cargo; internal transport of passengers, mail and cargo, vertical onboard delivery (VOD); airhead operations, and day/night search and rescue (SAR). The aircraft secondary roles include torpedo and drone recovery, noncombatant evacuation operations (NEO), SEAL and UDT support.

BASIS FOR FY 2006 BUDGET REQUEST:

FY 2006 advance procurement funds are requested for procurement of FY07 long lead engines, common cockpits, misc. other avionics, and economic order quantity (EOQ) / termination liablility for the airframe in support of the MH-60S portion of a joint Army-Navy 5 year (FY 2007 - FY 2011) Multiyear Procurement contract for the UH-60M Blackhawk and MH-60S Seahawk aircraft. Potential for Navy only multiyear contract exists. The common cockpits for the MH-60R and MH-60S are being procured under a Multiyear Procurement (MYP) contract (FY 2005 - FY 2008), with an option year in FY 2009. The Common Cockpit MYP funding reflects applicable EOQ requirements.

Note: Amounts may be off due to rounding.

Exhibit P-10 Advance Procurement Requirements Analysis (Page 1 - Funding)					Date: Feb 2005								
Appropriation (Treas) Code/CC/BA/BSA/Item Control Number Aircraft Procurement, Navy/Combat Aircraft (BA-1)					P-1 Line Item Nomenclature MH-60S Advance Procurement (MYP)								
Weapon System MH-60S VERTREP (MYP)					First System (BY1) Award Date Dec-03					Interval Between Systems Monthly			
($ in Millions)													
	PLT	When Rqd	Prior Years	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	To Complete	Total
End Item Qty			78	15	26	26	26						
CFE - Airframe (TL)	19	24	43.664										
EOQ/Long Lead													
FY 2003			19.653										
FY-2004			24.990										
FY 2005			2.530	31.603									
FY 2006			1.820	1.962	33.300								
FY 2007						46.456							
FY 2008						2.632	42.644						
FY 2009						2.632	2.887						
FY 2010						1.720	1.890						
FY 2011						1.617	1.667						
Total EOQ/Long Lead			48.993	33.565	33.300	55.056	49.088						
GFE - Engine/APU	12	4	78.125	20.234	40.715	41.487	42.308						
GFE - Cockpit	16	4	120.990										
EOQ/Long Lead	15	4											
FY 2005				32.086									
FY 2006					16.857								
FY 2007					1.358	16.459							
FY 2008					0.522	1.721	15.575						
FY 2009													
Total EOQ/Long Lead				32.086	18.737	18.180	15.575						
GFE - A/C Misc Avn	Var	Var	25.702	8.240	12.001	10.975	11.194						
Total AP			317.474	94.125	104.753	125.698	118.165						

Description:

Airframes, engines, common cockpit, and misc. other avionics requirements reflect funding requirements for procurement of long lead parts and materials necessary to maintain the MH-60S delivery schedule. CFE - Airframe (TL) is directly related to the end item quantity. Airframe multi-year funding reflects applicable EOQ requirements. GFE - Engines is directly related to the number of units delivered in the first 9 months of the aircraft delivery schedule (P-21). GFE - Cockpit through FY-04 is directly related to the number of units delivered in the first 9 months of the aircraft delivery schedule (P-21). GFE - Cockpit for FY-05 through FY-09 reflects the multi-year procurement contract and includes applicable EOQ requirements.

Exhibit P-10 Advance Procurement Requirements Analysis (Page 2 - Budget Justification)							Date: Feb 2005		
Appropriation (Treasury) Code/CC/BA/BSA/Item Control Number Aircraft Procurement, Navy/Combat Aircraft (BA-1)				Weapon System MH-60S VERTREP (MYP)			P-1 Line Item Nomenclature MH-60S Advance Procurement (MYP)		
(TOA, $ in Millions)									
	PLT	QPA	Unit Cost	FY 2005 for FY 2006 Qty	FY 2005 Contract Forecast Date	FY 2005 Total Cost Request	FY 2006 for FY 2007 Qty	FY 2006 Contract Forecast Date	FY 2006Total Cost Request
End Item				26			26		
CFE - Airframe (TL)	19	1			Dec-04	33.3		Dec-05	55.1
GFE - Engine/APU	12	2	0.7	52	Mar-05	40.7	52	Mar-06	41.5
GFE - A/C Common Cockpit	15	1	1.5		Dec-04	18.7		Dec-05	18.18
GFE - A/C Misc Avn	Var	Var	Var	Var	Var	12.0	Var	Var	11.0
Total Advance Proc						104.8			125.7

Description:

CLASSIFICATION: **UNCLASSIFIED**

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/BA 1			P-1 ITEM NOMENCLATURE MH-60R									
Program Element for Code B Items: PE 0204243N			Other Related Program Elements P.E. 0604216N Multi Mission Helicopter Upgrade Development (MYP)									
	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Program
QUANTITY	5	B	4	6	12	25	25	30	30	31	84	252
Net P-1 Cost ($M)	376.294	B	290.627	292.955	435.421	796.117	819.052	983.016	1,022.990	1,066.248	2,240.986	8,323.706
Advance Proc ($M)	32.536	B	36.631	70.331	119.078	120.101	147.391	150.391	158.668	161.999	284.882	1,282.008
Wpn Sys Cost ($M)	408.830	B	327.258	363.286	554.499	916.218	966.443	1,133.407	1,181.658	1,228.247	2,525.869	9,605.714
Initial Spares ($M)	12.263	B	17.999	55.056	101.019	14.782	1.284	1.399	1.249	1.405		206.456
Proc Cost ($M)	421.093	B	345.257	418.342	655.518	931.000	967.727	1,134.806	1,182.907	1,229.652	2,525.869	9,812.170
Unit Cost ($M)	84.219	B	86.314	69.724	54.627	37.240	38.709	37.827	39.430	39.666	30.070	38.937

Description:

Mission Description: The MH-60R Multi-Mission Helicopter provides battle group protection and adds significant capability in coastal littorals and regional conflicts. The MH-60R Multi-Mission Helicopter represents a significant avionics improvement to the H-60 series helicopters by enhancing primary mission areas of Undersea Warfare (USW) and Surface Warfare (SUW). Airborne Low Frequency Sonar (ALFS) will be added to enhance the existing acoustic suite. An added Multi-Mode Radar (MMR) includes an Inverse Synthetic Aperture Radar Mode (ISAR) (permits stand-off classification of hostile threats). An improved Electronics Surveillance Measures system (ESM) will enable passive detection and targeting of radar sources not currently detectable.

Basis for Request: This request funds the procurement of 12 aircraft in FY06 and 25 aircraft in FY07 and associated support. The common cockpits for the MH-60R and MH-60S will be procured under a Multiyear Procurement (MYP) contract (FY 2005 - FY 2008), with an option year in FY 2009. Authority for an airframe MYP, is intended to be requested in the FY07 President's Budget.

Date: February 2005

AIRCRAFT COST ANALYSIS P-5 Cost Sheet

Aircraft model: MH-60R

$ in thousands

		Prior Years	FY 2004 Qty: 4		FY 2005 Qty: 6		FY 2006 Qty: 12		FY 2007 Qty: 25	
		Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost
1	Airframe CFE	161,689.293	36,201.079	144,804.317	28,554.364	171,326.182	23,479.693	281,756.321	20,948.896	523,722.397
2	Engines/Eng Acc		1,394.460	5,577.840	1,416.851	8,501.107	1,446.605	17,359.260	1,476.984	36,924.592
3	CFE Electronics									
4	GFE Electronics	12,266.660	5,669.075	22,676.299	4,412.854	26,477.121	5,382.472	64,589.666	4,824.143	120,603.583
5	Armament									
6	Other GFE									
7	Rec Flyaway ECO		1,981.616	7,926.463	1,075.163	6,450.979	939.188	11,270.253	837.956	20,948.896
8	Rec Flyaway Cost	173,955.953	45,246.230	180,984.919	35,459.232	212,755.389	31,247.958	374,975.500	28,087.979	702,199.468
9	Non-Recur Cost	96,581.446		43,875.351		6,287.290		4,115.326		5,621.087
10	Ancillary Equip	18,271.188		14,000.000		16,205.270		24,898.235		45,552.670
11										
12	Total Flyaway	288,808.587	59,715.068	238,860.270	39,207.992	235,247.949	33,665.755	403,989.061	30,134.929	753,373.225
13	Airframe PGSE									
14	Engine PGSE									
15	Avionics PGSE	3,356.742		7,981.616		32,953.246		40,454.346		62,765.264
16	Pec Trng Eq	33,491.283		38,424.931		32,482.116		32,369.132		51,945.305
17	Pubs/Tech Data			5,624.711		7,226.409		6,179.934		10,433.173
18	Weapons System	4,497.159				1,068.536		1,377.656		2,345.874
19	Field Activities	37,585.647		18,138.804		12,383.432		13,593.268		21,769.721
20	ILS/LSA/MES	8,554.582		14,132.668		7,677.070		6,726.646		11,534.483
21	Production Support					547.243				
22	Support Cost	87,485.413		84,302.730		94,338.052		100,700.982		160,793.820
23	Gross P-1 Cost	376,294.000		323,163.000		329,586.001		504,690.043		914,167.045
24	Adv Proc Credit			-32,536.000		-36,631.000		-69,269.043		-118,050.044
25	Net P-1 Cost	376,294.000		290,627.000		292,955.001		435,421.000		796,117.001
26	Adv Proc CY	32,536.000		36,631.000		70,331.000		119,078.000		120,101.000
27	Weapon System Cost	408,830.000		327,258.000		363,286.001		554,499.000		916,218.001
28	Initial Spares	12,263.000		17,999.000		55,056.000		101,019.000		14,782.000
29	Procurement Cost	421,093.000		345,257.000		418,342.001		655,518.000		931,000.001

CLASSIFICATION: UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)	Weapon System MH-60R	A. DATE February 2005
B. APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/BA 1	C. P-1 ITEM NOMENCLATURE MH-60R	SUBHEAD U1SH

Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	TECH DATA AVAILABLE NOW?	DATE REVISIONS AVAILABLE
Airframe/Other Avionics CFE										
FY2004 Reg.	4	36,201	NAVAIR	SEP 03	SS/FPIF SS/FFP	Sikorsky-Stratford, CT Lockheed Martin-Owego, NY	APR 04	MAR 06	YES	N/A
FY2004 AP for FY2005	N/A	N/A	NAVAIR	SEP 03	SS/FPIF SS/FFP	Sikorsky-Stratford, CT Lockheed Martin-Owego, NY	JUL 04		YES	N/A
FY2005 Reg.	6	28,554	NAVAIR	SEP 04	SS/FPIF SS/FFP	Sikorsky-Stratford, CT Lockheed Martin-Owego, NY	MAR 05	SEP 06	YES	N/A
FY2005 AP for FY2006	N/A	N/A	NAVAIR	SEP 04	SS/FPIF SS/FFP	Sikorsky-Stratford, CT Lockheed Martin-Owego, NY	MAR 05		YES	N/A
FY2006 Reg.	12	23,480	NAVAIR	SEP 05	SS/FPIF SS/FFP	Sikorsky-Stratford, CT Lockheed Martin-Owego, NY	MAR 06	JUL 07	YES	N/A
FY2006 AP for FY2007	N/A	N/A	NAVAIR	SEP 05	SS/FPIF	Sikorsky-Stratford, CT	MAR 06		YES	N/A
FY2007 Reg.	25	20,949	NAVAIR	SEP 06	SS/FPIF SS/FFP	Sikorsky-Stratford, CT Lockheed Martin-Owego, NY	MAR 07	JUL 08	YES	N/A
FY2007 AP for FY2008	N/A	N/A	NAVAIR	SEP 06	SS/FPIF	Sikorsky-Stratford, CT	MAR 07		YES	N/A
Engines										
FY2004 Reg.	8	697	Army	MAY 02	SS/FFP	General Electric Lynn, MA	MAR 04	MAR 05	YES	N/A
FY2005 Reg.	12	708	Army	MAY 02	SS/FFP	General Electric Lynn, MA	NOV 04	SEP 05	YES	N/A
FY2006 Reg.	24	723	Army	MAY 02	SS/FFP	General Electric Lynn, MA	NOV 05	JUL 06	YES	N/A
FY2007 Reg.	50	738	Army	MAY 02	SS/FFP	General Electric Lynn, MA	NOV 06	JUL 07	YES	N/A

D. REMARKS

The engines for the MH-60R will be procured utilizing an existing Army contract.

CLASSIFICATION: UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)	Weapon System MH-60R	A. DATE February 2005
B. APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/BA 1	C. P-1 ITEM NOMENCLATURE MH-60R	SUBHEAD U1SH

Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	TECH DATA AVAILABLE NOW?	DATE REVISIONS AVAILABLE
CFE/Avionics (Common Cockpit)										
FY2004 AP for FY2005	**	*	NAVAIR	AUG 03	SS/MYP	Lockheed Martin-Owego, NY	DEC 03		YES	N/A
FY2005 Reg.	**	*	NAVAIR	AUG 03	SS/MYP	Lockheed Martin-Owego, NY	DEC 04	SEP 06	YES	N/A
FY2005 AP for FY2006	**	*	NAVAIR	AUG 03	SS/MYP	Lockheed Martin-Owego, NY	DEC 04		YES	N/A
FY2006 Reg.	**	*	NAVAIR	AUG 03	SS/MYP	Lockheed Martin-Owego, NY	DEC 05	JUL 07	YES	N/A
FY2006 AP for FY2007	**	*	NAVAIR	AUG 03	SS/MYP	Lockheed Martin-Owego, NY	DEC 05		YES	N/A
FY2007 Reg.	**	*	NAVAIR	AUG 03	SS/MYP	Lockheed Martin-Owego, NY	DEC 06	JUL 08	YES	N/A
FY2007 AP for FY2008	**	*	NAVAIR	AUG 03	SS/MYP	Lockheed Martin-Owego, NY	DEC 06		YES	N/A

D. REMARKS

** Included in Airframe Quantity
* Included in Airframe Cost

PRODUCTION SCHEDULE, P-21				DATE February 2005	
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/ BA1		Weapon System		P-1 ITEM NOMENCLATURE **MH-60R**	
		Production Rate		Procurement Leadtimes	

Item	Manufacturer's Name and Location	MSR	ECON	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
Airframe	Sikorsky Aircft, Stratford CT	12	24	48	12	5	28	22	27	E
Avionics	Lockheed Martin,Owego NY	12	36	80	12	5	15	28	33	E

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2005												FISCAL YEAR 2006										BAL
						2004			CALENDAR YEAR 2005									CALENDAR YEAR 2006										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Airframe (MH-60R)	04	N	4	0	4																		1		1	1		1		0
Airframe (MH-60R)	05	N	6	0	6																								1	5

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2007												FISCAL YEAR 2008										BAL
						2006			CALENDAR YEAR 2007									CALENDAR YEAR 2008										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Airframe (MH-60R)	05	N	6	1	5		1		1	1	1	1																		0
Airframe (MH-60R)	06	N	12	0	12										1	1	1	1	1	1	1	1	1	1	1	1				0
Airframe (MH-60R)	07	N	25	0	25																						2	2	2	19

Note: The airframe is delivered from Sikorsky to Lockheed Martin (6) mos. prior, for the incorporation of the Avionics System. The dates in the delivery schedule reflect the month in which the airframe is delivered with full Avionics from Lockheed Martin to the government.

PRODUCTION SCHEDULE, P-21				DATE February 2005
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/ BA1		Weapon System	P-1 ITEM NOMENCLATURE **MH-60R**	

		Production Rate			Procurement Leadtimes					
Item	Manufacturer's Name and Location	MSR	ECON	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
Airframe	Sikorsky Aircft, Stratford CT	12	24	48	12	5	28	22	27	E
Avionics	Lockheed Martin,Owego NY	12	36	80	12	5	15	28	33	E

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2009												FISCAL YEAR 20010									BAL
						2008			CALENDAR YEAR 2009										CALENDAR YEAR 2010									
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Airframe (MH-60R)	07	N	25	6	19	2	2	2	2	2	2	2	2	3															0

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2011																					BAL
						2010																					
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Note: The airframe is delivered from Sikorsky to Lockheed Martin (6) months prior, for the incorporation of the Avionics System. The dates in the delivery schedule reflect the month in which the airframe is delivered with full Avionics from Lockheed Martin to the government.

PRODUCTION SCHEDULE, P-21					DATE February 2005
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/ BA1		Weapon System			P-1 ITEM NOMENCLATURE **MH-60R**
		Production Rate			Procurement Leadtimes					
Item	Manufacturer's Name and Location	MSR	ECON	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
Engines	General Electric Co.	6	72	144	3	1	12	9	10	E
	Lynn, MA									

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2005												FISCAL YEAR 2006										BAL
						2004			CALENDAR YEAR 2005									CALENDAR YEAR 2006										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Engine	04	N	8	0	8						2		2	2		2													0
Engine	05	N	12	0	12												2		2		2	2	2	2					0
Engine	06	N	24	0	24																						2	2	2	18

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2007												FISCAL YEAR 2008										BAL
						2006			CALENDAR YEAR 2007									CALENDAR YEAR 2008										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Engine	06	N	24	6	18	2	2	2	2	2	2	2	2	2																0
Engine	07	N	50	0	50										4	4	4	4	4	4	4	4	4	4	4	6				0

PRODUCTION SCHEDULE, P-21				DATE February 2005	
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/ BA1		Weapon System		P-1 ITEM NOMENCLATURE **MH-60R**	

		Production Rate			Procurement Leadtimes					
Item	Manufacturer's Name and Location	MSR	ECON	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
Common Cockpit (MYP)	Lockheed Martin	12	36	80	12	3	15	30	33	E
	Owego NY									

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2005												FISCAL YEAR 2006										BAL
						2004	CALENDAR YEAR 2005												CALENDAR YEAR 2006										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Common Cockpit	04	N	4	0	4																		1		1	1		1		0
Common Cockpit	05	N	6	0	6																								1	5

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2007												FISCAL YEAR 2008										BAL
						2006	CALENDAR YEAR 2007												CALENDAR YEAR 2008										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Common Cockpit	05	N	6	1	5		1		1	1	1	1																		0
Common Cockpit	06	N	12	0	12										1	1	1	1	1	1	1	1	1	1	1	1				0
Common Cockpit	07	N	25	0	25																						2	2	2	19

FY04 and prior Common Cockpit procurements are included in the CFE Avionics contract. The delivery of the common cockpit for the MH-60R is the same as when the airframe is delivered from LMSI to the government.

PRODUCTION SCHEDULE, P-21			DATE February 2005		
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/ BA1		Weapon System	P-1 ITEM NOMENCLATURE **MH-60R**		

		Production Rate			Procurement Leadtimes					
Item	Manufacturer's Name and Location	MSR	ECON	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
Common Cockpit (MYP)	Lockheed Martin	12	36	80	12	3	15	30	33	E
	Owego NY									

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2009												FISCAL YEAR 20010									BAL
						2008			CALENDAR YEAR 2009										CALENDAR YEAR 2010									
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Common Cockpit	07	N	25	6	19	2	2	2	2	2	2	2	2	3															0

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2011																							BAL
						2010																							
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

FY04 and prior Common Cockpit procurements are included in the LRIP contract. The delivery of the common cockpit for the MH-60R is the same as when the airframe is delivered from LMSI to the government.

BUDGET ITEM JUSTIFICATION SHEET **P-40**			DATE: February 2005									
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy/(BA-1)**			P-1 ITEM NOMENCLATURE MH-60R Advance Procurement									
Program Element for Code B Items: PE 0204243N			Other Related Program Elements P.E. 0604216N Multi Mission Helicopter Upgrade Development									
	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
COST (In Millions)	$32,536	B	$36,631	$70,331	$119,078	$120,101	$147,391	$150,391	$158,668	$161,999	$284,882	$1,282,008

MISSION AND DESCRIPTION: The MH-60R Multi-Mission helicopter provides battle group protection and adds significant capability in coastal littorals and regional conflicts. The MH-60R Multi-Mission Helicopter represents a significant avionics improvement to the H-60 series helicopters by enhancing primary mission areas of Undersea Warfare (USW) and Surface Warfare (SUW). Airborne Low Frequency Sonar (ALFS) will be added to enhance the existing acoustic suite. An added Multi-Mode Radar (MMR) includes an Inverse Synthetic Aperture Radar (ISAR) mode (permits stand-off classification of hostile threats). An improved Electronics Surveillance Measures system (ESM) will enable passive detection and targeting of radar sources not currently detectable.

BASIS FOR FY 2006 BUDGET REQUEST: FY 2006 advance procurement funds are requested for procurement of long lead items in support of the FY2007 aircraft procurement. This covers Airframe and Avionics Contractor Furnished Equipment (CFE) which includes Termination Liability (TL), and long lead items for miscellaneous Avionics Government Furnished Equipment (GFE). The common cockpits for the MH-60R and MH-60S will be procured under a Multiyear Procurement (MYP) contract (FY 2005 - FY 2008), with an option year in FY 2009 . The Common Cockpit MYP funding reflects applicable EOQ requirements. Authority for an airframe MYP, is intended to be requested in the FY07 President's Budget.

Note: Amounts may be off due to rounding.

Exhibit P-10 Advance Procurement Requirements Analysis (Page 1 - Funding)	Date: February 2005
Appropriation (Treas) Code/CC/BA/BSA/Item Control Number Aircraft Procurement, Navy/BA-1	P-1 Line Item Nomenclature MH-60R Advance Procurement (MYP)
Weapon System MH-60R	Interval Between Systems Monthly

($ in Millions)

	PLT	When Rqd	Prior Years	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	To Complete	Total
End Item Qty			5	4	6	12	25						
CFE - Airframe T.L.	**22**		14.122	12.309	26.123	40.487	40.834						
CFE - Avionics T.L./Other	**28**		16.964	14.803	19.462	47.631	48.040						
Common Cockpit MYP	**30**												
Long Lead/EOQ													
FY2005				8.000									
FY2006					11.534								
FY2007					0.721	19.769							
FY2008					0.341	1.749	17.989						
FY2009 (Option)													
Total Common Cockpit MYP				8.000	12.596	21.518	17.989						
GFE Misc. Avionics	**var.**	**var.**	1.450	1.519	12.150	9.442	13.237						
Total AP			32.536	36.631	70.331	119.078	120.101						

Description:

Airframe & Avionics Contractor Furnished Equipment (CFE) Termination Liability (T.L.) and miscellaneous Avionics GFE long lead requirements which are necessary to maintain the MH-60R delivery schedule. The Common Cockpit MYP funding reflects applicable EOQ requirements.

Exhibit P-10 Advance Procurement Requirements Analysis (Page 2 - Budget Justification)							Date: February 2005		
Appropriation (Treasury) Code/CC/BA/BSA/Item Control Number Aircraft Procurement, Navy/BA-1				Weapon System MH-60R			P-1 Line Item Nomenclature MH-60R Advance Procurement (MYP)		
(TOA, $ in Millions)									
	PLT	QPA	UNIT COST	FY2005 for FY 2006 Qty	FY 2005 Contract Forecast Date	FY 2005 Total Cost Request	FY2006 for FY 2007 Qty	FY 2006 Contract Forecast Date	FY 2006 Total Cost Request
End Item				12			25		
CFE - Airframe T.L.	22	1			Mar-05	26.1		Mar-06	40.5
CFE - Avionics T.L.	28	1			Mar-05	19.5		Mar-06	47.6
Common Cockpit MYP	30	1			Dec-04	12.6		Dec-05	21.5
GFE - Misc. Avionics	var	var		var	var	12.2	var	var	9.4
Total Advance Proc						70.3			119.1

Description:

Note: Totals may not add due to rounding.

BUDGET ITEM JUSTIFICATION SHEET P-40												DATE: Febuary 2005
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/BA-1, Combat Aircraft			P-1 ITEM NOMENCLATURE E-2C (Early Warning) Hawkeye (MYP)									
Program Element for Code B Items:			Other Related Program Elements									
	Prior Years	ID Code	FY 2004[1]	FY 2005[1]	FY 2006[1]	FY 2007[1]	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Program
QUANTITY	36	A	2	2	2	2	0	4	4	4	57	113
Net P-1 Cost ($M)	2,143.036		197.475	210.720	210.952	208.065	0.000	594.717	650.156	665.818	8,402.984	13,283.923
Advance Proc ($M)	648.958		28.538	36.272	38.000	0.000	76.072	116.567	119.015	121.514	945.776	2,130.712
Wpn Sys Cost ($M)	2,791.994		226.013	246.992	248.952	208.065	76.072	711.284	769.171	787.332	9,348.760	15,414.635
Initial Spares ($M)	126.833		14.695	8.879	5.573	0.559	0.000	21.159	11.809	18.971	136.555	345.033
Proc Cost ($M)	2,918.827		240.708	255.871	254.525	208.624	76.072	732.443	780.980	806.303	9,485.316	15,759.668
Unit Cost ($M)	81.079		120.354	127.936	127.263	104.312	0.000	183.111	195.245	201.576	166.409	139.466

Description:
The E-2C Hawkeye is an all weather, carrier-based, airborne early warning and command and control aircraft. It extends task force defense perimeters by providing early warning of approaching enemy units and by vectoring interceptors into attack position. Additionally, the E-2C Hawkeye provides strike control, radar surveillance, search and rescue assistance, communications relay and automatic tactical data exchange.

Basis for Request:
The FY2006 budget funds two aircraft and their associated support.

Note 1:
During FY04 to FY07, to ensure the industrial base remains viable, funds are required to continue the deployment of the Cooperative Engagement Capability (CEC) and provide training aircraft to the fleet. A multi-year contract (FY04-FY07) is required to execute these buys due to quantities below the minimum sustaining rate of four (4) aircraft per year in order to retain critical skills, maintain proficiency, and reduce loss of learning as the program transitions to Advanced Hawkeye.

WEAPONS SYSTEM COST ANALYSIS P-5				Weapon System E-2C HAWKEYE						DATE: Febuary 2005
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/BA-1, Combat				ID Code A		P-1 ITEM NOMENCLATURE/SUBHEAD E-2C (Early Warning) Hawkeye (MYP)				
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS Prior Years	FY2004		FY 2005		FY 2006		FY2007	
			Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost
	Quantity				2		2		2		2
1	Airframe/CFE		1,354,610.859	62,758.000	125,516.000	73,504.708	147,009.415	75,284.423	150,568.846	79,892.309	159,784.618
2	CFE Electronics		721,305.282	3,874.500	7,749.000	9,994.700	19,989.400	4,014.500	8,029.000	10,727.272	21,454.543
3	GFE Electronics		167,157.345	4,550.276	9,100.552	5,828.703	11,657.406	4,987.199	9,974.398	4,261.849	8,523.697
4	Engines/Eng Acc		196,815.821	4,623.288	9,246.575	4,699.074	9,398.147	4,780.241	9,560.482	4,865.502	9,731.003
5	Armament		5,893.404	2,002.172	4,004.344	2,260.879	4,521.758	2,299.932	4,599.864	2,340.953	4,681.906
6	Other GFE		15,977.041	1,362.874	2,725.748	1,744.619	3,489.237	1,761.514	3,523.027	1,659.491	3,318.982
7	Rec Flyaway ECO		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8	Rec Flyaway Cost		2,461,759.753	79,171.110	158,342.219	98,032.682	196,065.363	93,127.808	186,255.617	103,747.375	207,494.749
9	Non-Recur Cost		42,650.629		30,872.000		0.000		7,440.069		9,949.466
10	Ancillary Equip		0.000		0.000		0.000		0.000		0.000
11	Other		0.000		0.000		0.000		0.000		0.000
12	Total Flyaway		2,504,410.382	94,607.110	189,214.219	98,032.682	196,065.363	96,847.843	193,695.686	108,722.108	217,444.215
13	Airframe PGSE		18,753.628		822.781		692.892		4,093.631		1,673.201
14	Engine PGSE		91.000		0.000		0.000		0.000		0.000
15	Avionics PGSE		5,418.655		341.581		103.561		2,295.000		1,810.321
16	Pec Trng Eq		49,061.463		2,190.380		1,354.691		1,358.036		2,678.843
17	Pub/Tech Eq		13,419.893		2,899.963		1,156.185		3,174.163		2,220.042
18	Prod Eng Supt		173,940.579		23,404.076		20,921.308		21,655.484		32,154.378
19	Other ILS		0.000		5,500.000		5,000.000		11,000.000		12,000.000
20			0.000		0.000		0.000		0.000		0.000
21	Support Cost		260,685.219		35,158.781		29,228.637		43,576.314		52,536.785
22	Gross P-1 Cost		2,765,095.601		224,373.000		225,294.000		237,272.000		269,981.000
23	Adv Proc Credit		-622,060.000		-26,898.000		-14,574.000		-26,320.000		-61,916.000
24	Net P-1 Cost		2,143,035.601		197,475.000		210,720.000		210,952.000		208,065.000
25	Adv Proc CY		648,958.000		28,538.000		36,272.000		38,000.000		0.000
26	Wpn Syst Cost		2,791,993.601		226,013.000		246,992.000		248,952.000		208,065.000
27	Initial Spares		126,833.000		14,695.000		8,879.000		5,573.000		559.000
28	**Procurement Cost**		2,918,826.601		240,708.000		255,871.000		254,525.000		208,624.000

DD FORM 2446, JUN 86 P-1 SHOPPING LIST ITEM NO. 13

CLASSIFICATION: **UNCLASSIFIED**

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System E-2C HAWKEYE		A. DATE Febuary 2005			
B. APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/BA-1, Combat Aircraft					C. P-1 ITEM NOMENCLATURE E-2C (Early Warning) Hawkeye (MYP)				SUBHEAD Y1A1	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	TECH DATA AVAILABLE NOW?	DATE REVISIONS AVAILABLE
Airframe										
2004 Regular (Multi Year)	2	66,633	NAVAIR	November-03	SS MYP	Northrop Grumman St. Augustine, Fl	Jan 04	Jan 07	Yes	N/A
Advance (EOQ for MYP) (FY 04 for FY 05-07)		TL/EOQ		November-03	AAC/MYP		Jan 04			
2005 Regular (Multi Year)	2	83,499	NAVAIR	November-03	SS MYP	Northrop Grumman St. Augustine, Fl	Dec 04	May 07	Yes	N/A
Advance (EOQ for MYP) (FY 05 for FY 06-07)		TL/EOQ		November-03	AAC/MYP		Dec 04			
2006 Regular (Multi Year)	2	79,299	NAVAIR	November-03	SS MYP	Northrop Grumman St. Augustine, FL	Dec 05	May 08	Yes	N/A
Advance for FY07		TL		November-03	AAC/MYP		Dec 05			
2007 Regular (Multi Year)	2	90,620	NAVAIR	November-03	SS MYP	Northrop Grumman St. Augustine, FL	Dec 06	May 09	Yes	N/A

D. REMARKS

FY 04-07 will be MYP due to quantities being below minimum sustaining rate.

CLASSIFICATION: **UNCLASSIFIED**

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System E-2C HAWKEYE			A. DATE Febuary 2005		
B. APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/BA-1, Combat Aircraft					C. P-1 ITEM NOMENCLATURE E-2C (Early Warning) Hawkeye (MYP)				SUBHEAD Y1A1	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	TECH DATA AVAILABLE NOW?	DATE REVISIONS AVAILABLE
Engines										
2004 Regular	4*	2,312	NAVAIR	January-04	SS MYP	Rolls Royce Indianapolis, IN	Apr 04	May 06	Yes	N/A
Advance for FY 05		T/L		January-04	AAC/MYP		Apr 04			
2005 Regular	4*	2,350	NAVAIR	October-04	SS MYP	Rolls Royce Indianapolis, IN	Jan 05	Nov 06	Yes	N/A
Advance for FY 06		T/L		October-04	AAC/MYP		Jan 05			
2006 Regular (Multi-Year)	4*	2,390	NAVAIR	October-05	SS MYP	Rolls Royce Indianapolis, IN	Dec 05	Jan 08	Yes	N/A
Advance for FY 07		T/L		October-05	AAC/MYP		Dec 05			
2007 Regular (Multi-Year)	4*	2,433	NAVAIR	October-06	SS MYP	Rolls Royce Indianapolis, IN	Dec 06	Dec 08	Yes	N/A

D. REMARKS

*Quantity is 2 per aircraft.

FY04 - Final contract negotiations concluded the first week of April vice the end of March.

FY05 - Final contract definitization of Multi Year Contract did not occur until Dec 04.

CLASSIFICATION: **UNCLASSIFIED**

PRODUCTION SCHEDULE, P-21					DATE Febuary 2005
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/BA-1, Combat Aircraft			Weapon System E-2C HAWKEYE		P-1 ITEM NOMENCLATURE E-2C (Early Warning) Hawkeye (MYP)

		Production Rate			Procurement Leadtimes					
Item	Manufacturer's Name and Location	MSR	ECON	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
Airframe	Northrop Grumman	4	6	8	6	3		41	44	E
	St. Augustine, FL									

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2004												FISCAL YEAR 2005												BAL
						2003			CALENDAR YEAR 2004										CALENDAR YEAR 2005												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Airframe	01	N	5	3	2				1			1																		0
	02	N	5	0	5								1		1					1	1		1							0
	03	N	5	0	5																				1		1		1	2
	04	N	2	0	2																									2
	05	N	2	0	2																									2

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2006												FISCAL YEAR 2007												BAL
						2005			CALENDAR YEAR 2006										CALENDAR YEAR 2007												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Airframe (Cont.)	03	N	5	3	2		1			1																				0
	04	N	2	0	2																1				1					0
	05	N	2	0	2																				1			1		0
	06	N	2	0	2																									2
	07	N	2	0	2																									2

In the 1st Qtr of FY04, there was a GFE failure which caused a backup in production. Problem has been corrected and program will be back on schedule by the beginning of the 1st Qtr of FY05.

PRODUCTION SCHEDULE, P-21					DATE Febuary 2005					
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/BA-1, Combat Aircraft			Weapon System E-2C HAWKEYE		P-1 ITEM NOMENCLATURE E-2C (Early Warning) Hawkeye (MYP)					
		Production Rate			Procurement Leadtimes					
Item	Manufacturer's Name and Location	MSR	ECON	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
Airframe	Northrop Grumman	4	6	8	6	3		41	44	E
	St. Augustine, FL									

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2008												FISCAL YEAR 2009												BAL
						2007			CALENDAR YEAR 2008									CALENDAR YEAR 2009												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Airframe (Cont.)	06	N	2	0	2								1					1												0
	07	N	2	0	2																				1				1	0

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2010												FISCAL YEAR 2011												BAL
						2009			CALENDAR YEAR 20010									CALENDAR YEAR 2011												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

P-1 SHOPPING LIST ITEM NO. 13

PRODUCTION SCHEDULE, P-21			DATE Febuary 2005
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/BA-1, Combat Aircraft		Weapon System E-2C HAWKEYE	P-1 ITEM NOMENCLATURE E-2C (Early Warning) Hawkeye (MYP)

		Production Rate			Procurement Leadtimes					
Item	Manufacturer's Name and Location	MSR	ECON	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
Engines	Rolls Royce Engine Co.	6	12	42	9	3		38	41	E
	Indianapolis, IN									

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2004												FISCAL YEAR 2005												BAL
						2003			CALENDAR YEAR 2004										CALENDAR YEAR 2005												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Engines	02	N	10	2	8	2			2		2			2																0
	03	N	10	0	10													2		2		2		2		2				0
	04	N	4	0	4																									4
	05	N	4	0	4																									4

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2006												FISCAL YEAR 2007												BAL
						2005			CALENDAR YEAR 2006										CALENDAR YEAR 2007												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Engines (Cont.)	04	N	4	0	4								2		2															0
	05	N	4	0	4														2		2									0
	06	N	4	0	4																									4
	07	N	4	0	4																									4

PRODUCTION SCHEDULE, P-21					DATE Febuary 2005					
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/BA-1, Combat Aircraft			Weapon System E-2C HAWKEYE		P-1 ITEM NOMENCLATURE E-2C (Early Warning) Hawkeye (MYP)					
		Production Rate			Procurement Leadtimes					
Item	Manufacturer's Name and Location	MSR	ECON	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
Engines	Rolls Royce Engine Co.	6	12	42	9	3		38	41	E
	Indianapolis, IN									

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2008												FISCAL YEAR 2009												BAL
						2007			CALENDAR YEAR 2008										CALENDAR YEAR 2009												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Engines (Cont.)	06	N	4	0	4				2		2																			0
	07	N	4	0	4															2		2								0

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2010												FISCAL YEAR 2011												BAL
						2009			CALENDAR YEAR 20010										CALENDAR YEAR 2011												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

BUDGET ITEM JUSTIFICATION SHEET P-40							DATE: February 2005					
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy/ Combat Aircraft, (BA-1)**				P-1 ITEM NOMENCLATURE **E-2C Advance Procurement (MYP)**								
Program Element for Code B Items:				Other Related Program Elements								
	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
COST (In Millions)	**648.958**	**A**	**28.538**	**36.272**	**38.000**	**0.000**	**76.072**	**116.567**	**119.015**	**121.514**	**945.776**	**2,130.712**

MISSION AND DESCRIPTION:

The E-2C Hawkeye is an all weather, carrier-based, airborne early warning and command and control aircraft. It extends task force defense perimeters by providing early warning of approaching enemy units and by vectoring interceptors into attack position. Additionally, the Hawkeye provides strike control, radar surveillance, search and rescue assistance, communications relay,and automatic tactical data exchange.

BASIS FOR FY 2006 BUDGET REQUEST:

The FY 06 budget funds the long-lead requirement for the procurement of two aircraft in FY 07.

Exhibit P-10, Advance Procurement Requirements Analysis (Page 1 - Funding)			Date: February 2005										
Appropriation (Treasury) Code/CC/BA/BSA/Item Control Number 1506/BA1/NA			P-1 Line Item Nomenclature E-2C Advance Procurement (MYP)										
Weapon System E-2C HAWKEYE			First System (BY1) Award Date Dec 03			First System (BY1) Completion Date May 07							
($ in Millions)													
	PLT	When Rqd	Prior Years	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	To Complete	Total
	41		36	2	2	2	2						
				Multiyear	Multiyear	Multiyear	Multiyear						
CFE/AIRFRAME	24	10	141.1										
PRIOR LL/EOQ			273.0										
FY03 LL/EOQ			158.8										
LL/EOQ AIRFRAME													
FOR FY04			20.9										
FOR FY05				13.000									
FOR FY06				6.982	17.000								
FOR FY07				6.982	16.934	25.000							
TOTAL LL/EOQ AIRFRAME			20.9	26.964	33.934	25.000							
GFE													
ENGINE	24	10	11.3	1.245	1.200	1.200	0.000						
JTIDS	24	10	16.0	0.197	0.800	0.810	0.000						
OTHER GFE	24	10	27.9	0.132	0.338	10.990	0.000						
TOTAL			**648.958**	**28.538**	**36.272**	**38.000**	**0.000**						

P-1 SHOPPONG LIST ITEM NO. 14

Exhibit P-10 Advance Procurement Requirements Analysis (Page 2 - Budget Justification)							Date: February 2005		
Appropriation (Treasury) Code/CC/BA/BSA/Item Control Number 1506/-/BA1/-/NA					Weapon System E-2C HAWKEYE		P-1 Line Item Nomenclature E-2C ADVANCE PROCUREMENT(MYP)		
(TOA, $ in Millions)									
	PLT	QPA	UNIT COST	FY 2005 For FY 2006 Qty	FY 2005 Contract Forecast Date	FY2005 Total Cost Request	FY 2006 For FY 2007 Qty	FY2006 Contract Forecast Date	FY2006 Total Cost Request
E-2C	41	N/A	N/A	2	N/A	N/A	2	N/A	N/A
AIRFRAME/CFE	24	1	TL	2	Dec 04	33.9	2	Dec 05	25.0
ENGINE	32	2	TL	4	Jan 05	1.2	4	Dec 05	1.2
GFE	24	VAR	TL	VAR	Various	1.1	VAR	Various	11.8
Total Advance Proc						36.3			38.0
Description:									

BUDGET ITEM JUSTIFICATION SHEET
P-40

DATE: **February 2005**

APPROPRIATION/BUDGET ACTIVITY
Aircraft Procurement, Navy B A 2

P-1 ITEM NOMENCLATURE
UC-35

Program Element for Code B Items:
N/A

Other Related Program Elements
N/A

	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Program
QUANTITY	5	A	4	2								11
Net P-1 Cost ($M)	34.885		30.894	15.938								81.717
Advance Proc ($M)												
Wpn Sys Cost ($M)	34.885		30.894	15.938								81.717
Initial Spares ($M)			1.219									1.219
Proc Cost ($M)	34.885		32.113	15.938								82.936
Unit Cost ($M)	6.977		8.028	7.969								7.540

Description:
The UC-35 is a FAA type-certified modern commercial cargo/passenger transport aircraft (Cessna Citation Ultra/Encore) that will replace the US Marine Corps' (USMC) CT-39 aircraft in performing Operational Support Airlift (OSA) missions. The OSA mission provides transportation for high priority passengers and cargo with time, place or mission sensitive requirements. Two UC-35 aircraft have also been procured for the USMC Reserves in FY98 using National Guard & Reserve Equipment (NG&RE).

Basis for FY 2006 request: No funds are requested.

CLASSIFICATION: **UNCLASSIFIED**

WEAPONS SYSTEM COST ANALYSIS P-5	Weapon System UC-35	DATE: **February 2005**
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy BA 2**	ID Code **A**	P-1 ITEM NOMENCLATURE/SUBHEAD **UC-35/42CA**

TOTAL COST IN THOUSANDS OF DOLLARS

COST CODE	ELEMENT OF COST	QTY	Prior Years	FY 2004			FY 2005			FY 2006			FY 2007		
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
1	Airframe CFE	5	32,361.994	4	7,722.264	30,889.056	2	7,969.000	15,938.000						
2	CFE Electronics														
3	GFE Electronics														
4	Engines/Eng Acc														
5	Other GFE														
6	Rec Flyaway ECO														
7	Rec Flyaway Cost		32,361.994		7,722.264	30,889.056		7,969.000	15,938.000						
8	Non-Recur Cost														
9	Ancillary Equip														
10	Total Flyaway		32,361.994		7,722.264	30,889.056		7,969.000	15,938.000						
11	Airframe PGSE														
12	Engine PGSE														
13	Avionics PGSE														
14	Pec Trng Eq														
15	Pub/Tech Eq		7.000												
16	Other ILS		2,324.799			4.944									
17	Prod Eng Supt		191.207												
18	Support Cost		2,523.006			4.944									
19	Gross P-1 Cost		34,885.000			30,894.000			15,938.000						
20	Adv Proc Credit														
21	Net P-1 Cost		34,885.000			30,894.000			15,938.000						
22	Adv Proc CY														
23	Weapon System Cost		34,885.000			30,894.000			15,938.000						
24	Initial Spares					1,219.000									
25	Procurement Cost		34,885.000			32,113.000			15,938.000			**0**			**0**

CLASSIFICATION: UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)	Weapon System UC-35	A. DATE **February 2005**
B. APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/BA-2	C. P-1 ITEM NOMENCLATURE UC-35	SUBHEAD 42CA

Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	TECH DATA AVAILABLE NOW?	DATE REVISIONS AVAILABLE
Airframe CFE/FY04	4	7,722	ARMY	N/A	FFP	CESSNA AIRCRAFT WICHITA, KS	1/04	3/05	N/A	N/A
Airframe CFE/FY05	2	7,969	ARMY	N/A	FFP	CESSNA AIRCRAFT WICHITA, KS	2/05	2/06	N/A	N/A

D. REMARKS

FY 2006/2007 BUDGET PRODUCTION SCHEDULE, P-21						DATE February 2005					
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy/BA-2**				Weapon System **UC-35**		P-1 ITEM NOMENCLATURE UC-35					
		Production Rate			Procurement Leadtimes						
Item	Manufacturer's Name and Location	MSR	ECON	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure	
UC-35	Cessna ACFT Co.	N/A	N/A	N/A	0	4	N/A	12	16	E	

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2004												FISCAL YEAR 2005										BAL
						2003			CALENDAR YEAR 2004										CALENDAR YEAR 2005										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
UC-35/CESSNA	04	N	4	0	4				A														1	1	1	1				0
UC-35/CESSNA	05	N	2	0	2																	A								2

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2006												FISCAL YEAR 2007										BAL
						2005			CALENDAR YEAR 2006										CALENDAR YEAR 2007										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
UC-35/CESSNA	05	N	2	0	2					1	1																			0

Remarks:

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy, BA-2**							P-1 ITEM NOMENCLATURE **C-40A**					
Program Element for Code B Items: **N/A**							Other Related Program Elements **N/A**					
	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Program
QUANTITY	3	A	1	1		1	2	1	1	1	14	29
Net P-1 Cost ($M)	172.349		62.783	64.972	10.312	82.683	160.414	79.030	79.108	91.137	1,867.895	2,670.683
Advance Proc ($M)												
Wpn Sys Cost ($M)	172.349		62.783	64.972	10.312	82.683	160.414	79.030	79.108	91.137	1,867.895	2,670.683
Initial Spares ($M)	2.137			4.300		2.504	1.272	2.020	0.765	1.395	14.259	28.652
Proc Cost ($M)	174.486		62.783	69.272	10.312	85.187	161.686	81.050	79.873	92.532	1,882.154	2,699.335
Unit Cost ($M)	58.162		62.783	69.272		85.187	80.843	81.050	79.873	92.532	134.440	93.081

Description:
The C-40A is the replacement for the C-9B/DC-9 aircraft. The C-40A provides the Navy Reserve with a long range aircraft that will carry high priority passenger and cargo.
The C-40A carries 121 passengers in the all passenger configuration, eight standard DoD cargo pallets in the all cargo configuration, or 3 pallets and 70 passengers in the combination configuration.
The C-40A is a commercial derivative of the Boeing 737-700C and all three configurations are FAA Certified. The C-40A is certified for Extended Twin-Engine Operations (ETOPS) for over water operations.

In prior years, in addition to the three aircraft shown above, four C-40A aircraft and related support were procured for the Naval Reserves using FY97-99 National Guard & Reserve Equipment (NGR&E) funding.

The long term objective for the C-40A program is to replace all 29 C-9B/DC-9 aircraft.

Basis for FY2006 request: Site Activation.

Fluctuations in Other ILS and Airframe PGSE across the FYDP are due to required Site Activations.

CLASSIFICATION: **UNCLASSIFIED**

WEAPONS SYSTEM COST ANALYSIS P-5	Weapon System C-40A	DATE: **February 2005**
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy/BA-2**	ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD **C-40A/42B2**

COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS												
			Prior Years		FY 2004			FY 2005			FY 2006			FY 2007		
			Quantity	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
1	Airframe CFE		3	167,857.000	1	62,000.000	62,000.000	1	64,154.000	64,154.000			0.000	1	73,640.000	73,640.000
2	CFE Electronics															
3	GFE Electronics			197.000			56.000			58.000						150.000
4	Engines/Engine Acc															
5	Armament															
6	Other GFE															
7	Rec Flyaway ECO															
8	Red Flyaway Cost		3	168,054.000	1	62,000.000	62,056.000	1	64,154.000	64,212.000		0.000	0.000	1	73,640.000	73,790.000
9	Non-Recur Cost															
10	Ancillary Equipment															
11																
12	Total Flyaway		3	168,054.000	1	62,000.000	62,056.000	1	64,154.000	64,212.000		0.000	0.000	1	73,640.000	73,790.000
13	Airframe PGSE			1,134.000									4,225.000			3,822.000
14	Engine PGSE															
15	Avionics PGSE															
16	Pec Trng Eq															
17	Pub/Tech Eq															
18	Other ILS			1,442.000			401.000			422.000			5,293.000			4,459.000
19	Prod Eng Supt			1,719.000			326.000			338.000			794.000			612.000
20																
21	Support Cost			4,295.000			727.000			760.000			10,312.000			8,893.000
22	Gross P-1 Cost			172,349.000			62,783.000			64,972.000			10,312.000			82,683.000
23	Adv Proc Credit															
24	Net P-1 Cost			172,349.000			62,783.000			64,972.000			10,312.000			82,683.000
25	Adv Proc CY															
26	Weapon System Cost			172,349.000			62,783.000			64,972.000			10,312.000			82,683.000
27	Initial Spares			2,137.000						4,300.000						2,504.000
28	Procurement Cost			174,486.000			62,783.000			69,272.000			10,312.000			85,187.000
				174,486.000			62,783.000			69,272.000			10,312.000			85,187.000

CLASSIFICATION: UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)	Weapon System C-40A	A. DATE February 2005
B. APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy, BA-2	C. P-1 ITEM NOMENCLATURE C-40A	SUBHEAD 42B2

Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	TECH DATA AVAILABLE NOW?	DATE REVISIONS AVAILABLE
FY2004	1	$62,000	NAVAIR	N/A	FFP	BOEING SEATTLE WA	11/03	2/05	N/A	N/A
FY2005	1	$64,154	NAVAIR	N/A	FFP	BOEING SEATTLE WA	12/04	5/06	N/A	N/A
FY2007	1	$73,640	NAVAIR	N/A	FFP	BOEING SEATTLE WA	12/06	6/08	N/A	N/A

D. REMARKS

PRODUCTION SCHEDULE, P-21 | DATE February 2005

APPROPRIATION/BUDGET ACTIVITY: **Aircraft Procurement, Navy/BA-2** | Weapon System: **C-40A** | P-1 ITEM NOMENCLATURE: **C-40A**

Item	Manufacturer's Name and Location	Production Rate MSR	Production Rate ECON	Production Rate MAX	Procurement Leadtimes ALT Prior to Oct 1	Procurement Leadtimes ALT After Oct 1	Procurement Leadtimes Initial Mfg PLT	Procurement Leadtimes Reorder Mfg PLT	Procurement Leadtimes Total	Unit of Measure
C-40 Aircraft	Boeing, Seattle WA	NA	NA	NA	3	3		18	21	E

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2004 / 2003 OCT	2003 NOV	2003 DEC	CALENDAR YEAR 2004 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	FISCAL YEAR 2005 / CALENDAR YEAR 2004 OCT	NOV	DEC	CALENDAR YEAR 2005 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	BAL
C-40A Aircraft/Boeing Seattle	03	N	1	0	1														1										0
C-40A Aircraft/Boeing Seattle	04	N	1	0	1		A															1							0
C-40A Aircraft/Boeing Seattle	05	N	1	0	1															A									1

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2006 / 2005 OCT	2005 NOV	2005 DEC	CALENDAR YEAR 2006 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	FISCAL YEAR 2007 / CALENDAR YEAR 2006 OCT	NOV	DEC	CALENDAR YEAR 2007 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	BAL
C-40A Aircraft/Boeing Seattle	05	N	1	0	1								1																0
C-40A Aircraft/Boeing Seattle	07	N	1	0	1															A									1

Remarks:

PRODUCTION SCHEDULE, P-21 | DATE February 2005

APPROPRIATION/BUDGET ACTIVITY: **Aircraft Procurement, Navy/BA-2** | Weapon System: **C-40A** | P-1 ITEM NOMENCLATURE: **C-40A**

Item	Manufacturer's Name and Location	Production Rate MSR	1-8-5	MAX	Procurement Leadtimes ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
C-40 Aircraft	Boeing, Seattle WA	NA	NA	NA	3	3		18	21	E

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2008 / 2007 OCT	NOV	DEC	CALENDAR YEAR 2008 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	FISCAL YEAR 2009 / CALENDAR YEAR 2009 OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	BAL
C-40A Aircraft/Boeing Seattle	07	N	1	0	1									1																0

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2010 / 2009 OCT	NOV	DEC	CALENDAR YEAR 2010 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	FISCAL YEAR 2011 / CALENDAR YEAR 2011 OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	BAL

Remarks:

BUDGET ITEM JUSTIFICATION SHEET
P-40

DATE: **February 2005**

APPROPRIATION/BUDGET ACTIVITY
Aircraft Procurement, Navy/BA-2

P-1 ITEM NOMENCLATURE
C-37 Aircraft

Program Element for Code B Items:
N/A

Other Related Program Elements
N/A

	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Program
QUANTITY	1	A	1	2						1		5
Net P-1 Cost ($M)	48.412		54.501	106.219						62.492		271.624
Advance Proc ($M)												0.000
Wpn Sys Cost ($M)	48.412		54.501	106.219						62.492		271.624
Initial Spares ($M)	1.830			2.037								3.867
Proc Cost ($M)	50.242		54.501	108.256						62.492		275.491
Unit Cost ($M)	50.242		54.501	54.128						62.492		55.098

Description:
The C-37 is a long-range, twin-turbofan, Commercial Off the Shelf (COTS) Non-Developmental Item (NDI), Federal Aviation Administration (FAA) certified, transport aircraft. The aircraft will be certified per Federal Aviation Regulation (FAR) Part 25 (Airworthiness Standards), Part 34 (Pollution), and Part 36 (Noise).

The mission of the C-37 aircraft is to provide long range executive transport to the Secretary of the Navy (SECNAV), Chief of Naval Operations (CNO), Commandant of the Marine Corp (CMC), and Theatre Commanders. Four of the five aircraft currently meeting this mission have exceeded or will exceed fatigue life expiration by FY 2006.

The C-37 aircraft will comply with Reduced Vertical Separation Minimum (RVSM), extended twin-engine over-water requirements and be Communication, Navigation, Surveillance/Air Traffic Management (CNS/ATM) compliant. The aircraft will have state of the art avionics that comply with all known FAA and International Civil Organization (ICAO) mandates and Future Air Navigation Systems (FANS) requirements.

The total C-37 aircraft program requirement is five (5) aircraft.

Basis for FY 2006 request: No funds are requested in FY 2006.

CLASSIFICATION: **UNCLASSIFIED**

WEAPONS SYSTEM COST ANALYSIS P-5	Weapon System C-37	DATE: **February 2005**
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy/BA-2**	ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD **C-37/42VP**

TOTAL COST IN THOUSANDS OF DOLLARS

COST CODE	ELEMENT OF COST	ID Code	Prior Years		FY 2004			FY 2005			FY 2006			FY 2007		
			Quantity	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
1	Airframe CFE		1	44,000.000	1	49,561.969	49,561.969	2	51,630.000	103,260.000						
2	CFE Electronics															
3	GFE Electronics															
4	Engines/Engine Acc															
5	Armament															
6	Other GFE															
7	Rec Flyaway ECO															
8	Red Flyaway Cost		1	44,000.000	1	49,561.969	49,561.969	2	51,630.000	103,260.000						
9	Non-Recur Cost															
10	Ancillary Equipment															
11																
12	Total Flyaway		1	44,000.000	1	49,561.969	49,561.969	2	51,630.000	103,260.000						
13	Airframe PGSE			900.000			1,250.000			412.000						
14	Engine PGSE															
15	Avionics PGSE															
16	Pec Trng Eq			948.000			125.000			197.000						
17	Pub/Tech Eq			360.000			625.000			566.000						
18	Other ILS			1,564.000			1,815.000			989.000						
19	Prod Eng Supt			640.000			1,124.031			795.000						
20																
21	Support Cost			4,412.000			4,939.031			2,959.000						
22	Gross P-1 Cost			48,412.000			54,501.000			106,219.000						
23	Adv Proc Credit															
24	Net P-1 Cost			48,412.000			54,501.000			106,219.000						
25	Adv Proc CY															
26	Weapon System Cost			48,412.000			54,501.000			106,219.000						
27	Initial Spares			1,830.000						2,037.000						
28	Procurement Cost			50,242.000			54,501.000			108,256.000						
				50,242.000			54,501.000			108,256.000						

CLASSIFICATION: UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)	Weapon System C-37	A. DATE February 2005
B. APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/BA-2	C. P-1 ITEM NOMENCLATURE C-37 Aircraft	SUBHEAD 42VP

Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	TECH DATA AVAILABLE NOW?	DATE REVISIONS AVAILABLE
FY 2004	1	$49,562	Tinker AFB	N/A	FFP	Gulfstream, Savannah GA	12/03	1/05	N/A	N/A
FY 2005	2	$51,630	Tinker AFB	N/A	FFP	Gulfstream, Savannah GA	12/04	12/05	N/A	N/A

D. REMARKS

FY 2006/2007 BUDGET PRODUCTION SCHEDULE, P-21						DATE February 2005					
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy/BA-2**				Weapon System **C-37**		P-1 ITEM NOMENCLATURE C-37/42VP					
		Production Rate			Procurement Leadtimes						
Item	Manufacturer's Name and Location	MSR	ECON	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure	
C-37 Aircraft	Gulfstream, Savannah GA	NA	NA	NA	0	3		12	15	E	

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2004												FISCAL YEAR 2005										BAL
						2003			CALENDAR YEAR 2004										CALENDAR YEAR 2005										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
C-37 Aircraft/Gulfstream	04	N	1	0	1			A													1								0
C-37 Aircraft/Gulfstream	05	N	2	0	2															A									2

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2006												FISCAL YEAR 2007										BAL
						2005			CALENDAR YEAR 2006										CALENDAR YEAR 2007										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
C-37 Aircraft/Gulfstream	05	N	2	0	2			2																					0

Remarks:

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY: Aircraft Procurement, Navy, BA-3						P-1 ITEM NOMENCLATURE: T48TS						
Program Element for Code B Items:						Other Related Program Elements						
	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Program
QUANTITY	0	A	0	0	0	0	0	0	0	0	0	0
Net P-1 Cost ($M)	0	A	2.755	0	0	0	0	0	0	0	0	2.755
Advance Proc ($M)	0	A	0	0	0	0	0	0	0	0	0	0
Wpn Sys Cost ($M)	0	A	2.755	0	0	0	0	0	0	0	0	2.755
Initial Spares ($M)	0	A	0	0	0	0	0	0	0	0	0	0
Proc Cost ($M)	0	A	2.755	0	0	0	0	0	0	0	0	2.755
Unit Cost ($M)	0	A	0	0	0	0	0	0	0	0	0	0

Description:

The Undergraduate Military Flight Officer Training System (UMFOTS) consists of an FAA type-certified commercial passenger aircraft; Emergency Procedures Trainers and a Ground Based Training System to perform Undergraduate Military Flight Officer training at NAS Pensacola, Florida. T-39N/G aircraft currently performing the UMFOTS training are in excess of 35 years of age. These aircraft are rapidly reaching the end of their structural fatigue life and must be replaced to continue providing Naval Flight Officer's (NFOs) to the Navy, Marines, Air Force and foreign customers.

Basis for FY 06 Request: Program has been cancelled.

Note: FY 2005 funding was moved to the T-45 program by the FY 2005 Appropriation Act.

AIRCRAFT COST ANALYSIS
P-5 Cost Sheet

Date: February 2005

Aircraft model: T48TS

$ in thousands

		Prior Years	FY 2004 Qty: 0		FY 2005 Qty: 0		FY 2006 Qty: 0		FY 2007 Qty: 0	
		Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost
1	Airframe CFE	0	0	0	0	0	0	0	0	0
2	CFE Electronics	0	0	0	0	0	0	0	0	0
3	GFE Electronics	0	0	0	0	0	0	0	0	0
4	Engines/Eng Acc	0	0	0	0	0	0	0	0	0
5	Armament	0	0	0	0	0	0	0	0	0
6	Other GFE	0	0	0	0	0	0	0	0	0
7	Rec Flyaway ECO	0	0	0	0	0	0	0	0	0
8	Rec Flyaway Cost	0	0	0	0	0	0	0	0	0
9	Non-Recur Cost	0		1,402.500		0		0		0
10	Ancillary Equip	0		0		0		0		0
11										
12	Total Flyaway	0	0	1,402.500	0	0	0	0	0	0
13	Airframe PGSE	0		0		0		0		0
14	Engine PGSE	0		0		0		0		0
15	Avionics PGSE	0		0		0		0		0
16	Pec Trng Eq	0		0		0		0		0
17	Pub/Tech Eq	0		0		0		0		0
18	Other ILS	0		130.000		0		0		0
19	Prod Eng Supt	0		1,222.500		0		0		0
20										
21	Support Cost	0		1,352.500		0		0		0
22	Gross P-1 Cost	0		2,755.000		0		0		0
23	Adv Proc Credit	0		0		0		0		0
24	Net P-1 Cost	0		2,755.000		0		0		0
25	Adv Proc CY	0		0		0		0		0
26	Weapon System Cost	0		2,755.000		0		0		0
27	Initial Spares	0		0		0		0		0
28	Procurement Cost	0		2,755.000		0		0		0

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY: Aircraft Procurement, Navy/B.A.3					P-1 ITEM NOMENCLATURE: T45TS Goshawk							
Program Element for Code B Items:					Other Related Program Elements							
	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Program
QUANTITY	181	A	14	10	6	12	0	0	0	0	0	223
Net P-1 Cost ($M)	4,005.415	A	339.225	304.842	239.240	348.929	30.589	0	0	0	0	5,268.240
Advance Proc ($M)	342.890	A	0	0	0	0	0	0	0	0	0	342.890
Wpn Sys Cost ($M)	4,348.305	A	339.225	304.842	239.240	348.929	30.589	0	0	0	0	5,611.130
Initial Spares ($M)	242.570	A	16.138	6.243	10.173	5.166	0	0	0	0	0	280.290
Proc Cost ($M)	4,590.875	A	355.363	311.085	249.413	354.095	30.589	0	0	0	0	5,891.420
Unit Cost ($M)	25.364	A	25.383	31.109	41.569	29.508	0	0	0	0	0	26.419

Description:

The T45TS is an optimized replacement for the existing pilot training system that meets carrier pilot production requirements (TA-4J retired in FY99 & T-2C starts retirement in FY07). The fully integrated system includes: 223 T-45 aircraft; 19 simulators; academic materials, training aids, & equipment; two computer based training integration systems; and contractor logistics support of all system elements.

BASIS FOR FY 2006 REQUEST: FY06 fully funds 6 T45TS aircraft and associated support.

AIRCRAFT COST ANALYSIS
P-5 Cost Sheet

Date: February 2005

Aircraft model: T45TS Goshawk

$ in thousands

		Prior Years	FY 2004 Qty:	14	FY 2005 Qty:	10	FY 2006 Qty:	6	FY 2007 Qty:	12
		Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost
1	Airframe CFE	2,971,510.440	17,689.285	247,649.994	19,572.687	195,726.868	23,989.111	143,934.666	20,229.651	242,755.807
2	Engines/Eng Acc	232,123.112	3,192.831	44,699.630	4,325.000	34,600.000	4,625.647	27,753.880	3,943.700	47,324.398
3	GFE Electronics	22,748.290	237.848	3,329.869	241.319	2,413.189	255.027	1,530.159	236.775	2,841.294
6	Other GFE	90,050.670	546.502	7,651.029	623.418	6,234.182	638.439	3,830.636	644.041	7,728.494
	Subtotal GFE	344,922.072	3,977.181	55,680.528	4,324.737	43,247.371	5,519.113	33,114.675	4,824.516	57,894.186
7	Rec Flyaway ECO	19,209.489	69.073	967.028	489.317	4,893.172	737.927	4,427.561	194.950	2,339.403
8	Rec Flyaway Cost	3,335,642.001	21,735.539	304,297.550	24,386.741	243,867.411	30,246.150	181,476.902	25,249.116	302,989.396
9	Non-Recur Cost	102,266.008		405.467		1,100.995		1,104.548		2,000.000
10	Ancillary Equip	25,276.613		950.000		3,422.226		3,481.979		1,500.000
12	Total Flyaway	3,463,184.622	21,832.358	305,653.017	24,839.063	248,390.632	31,010.572	186,063.429	25,540.783	306,489.396
13	Airframe PGSE	122,940.697		2,012.668		9,592.180		5,619.290		4,669.463
16	Pec Trng Eq	213,967.938		0		0		8,100.000		0
17	Pub/Tech Eq	53,441.212		1,138.302		4,338.062		2,555.998		4,944.795
18	Other ILS	259,005.271		12,883.379		19,648.951		17,150.678		15,266.873
19	Fac Mgmt/Fld Act	202,667.186		16,345.402		19,561.980		17,798.518		15,867.863
20	ISD/TIS/ACAD	32,590.361		1,192.232		3,310.195		1,952.087		1,690.610
	Other Support	508.143		0		0		0		0
21	Support Cost	885,120.808		33,571.983		56,451.368		53,176.571		42,439.604
22	Gross P-1 Cost	4,348,305.430		339,225.000		304,842.000		239,240.000		348,929.000
23	Adv Proc Credit	-342,889.992		0		0		0		0
24	Net P-1 Cost	4,005,415.438		339,225.000		304,842.000		239,240.000		348,929.000
25	Adv Proc CY	342,889.992		0		0		0		0
26	Weapon System Cost	4,348,305.430		339,225.000		304,842.000		239,240.000		348,929.000
27	Initial Spares	242,569.877		16,138.000		6,243.000		10,173.000		5,166.000
28	Procurement Cost	4,590,875.307		355,363.000		311,085.000		249,413.000		354,095.000

CLASSIFICATION: UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)	Weapon System T45TS GOSHAWK	A. DATE February 2005
B. APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/ B.A.3	C. P-1 ITEM NOMENCLATURE T45TS	SUBHEAD U3GH

Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	TECH DATA AVAILABLE NOW?	DATE REVISIONS AVAILABLE
Airframe/CFE										
FY 2004	14	17,689	NAVAIR, Pax River	3/03	SS /FP	Boeing (MDA) St. Louis, MO	3/04	10/05	Yes	N/A
FY 2005	10	19,573	NAVAIR, Pax River	11/03	SS /FP	Boeing (MDA) St. Louis, MO	1/05	10/06	Yes	N/A
FY 2006	6	23,989	NAVAIR, Pax River	11/04	SS /FP	Boeing (MDA) St. Louis, MO	3/06	11/07	Yes	N/A
FY 2007	12	20,230	NAVAIR, Pax River	11/05	SS /FP	Boeing (MDA) St. Louis, MO	3/07	10/08	Yes	N/A

D. REMARKS

Airframe/CFE and CFE Mission Electronics only. Engine is GFE.

Sole Source because Boeing (MDA) is the designer, developer and sole manufacturer/integrator of the T-45 airplane.

Only Boeing (MDA) possesses the unique experience and capabilities to fulfill this requirement. Because Boeing is the sole source contractor, there are normally no formal RFP's utilized, and the process begins with Boeing submitting a proposal. Therefore, the RFP dates above are not true RFP dates and reflect NAVAIR contracting estimates on when proposals began.

CLASSIFICATION: UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)	Weapon System T45TS GOSHAWK	A. DATE February 2005
B. APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/ B.A. 3	C. P-1 ITEM NOMENCLATURE T45TS	SUBHEAD U3GH

Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	TECH DATA AVAILABLE NOW?	DATE REVISIONS AVAILABLE
Engine										
FY 2004	15	2,980	NAVAIR, Pax River	N/A	SS/ FP/ OPT	Rolls Royce plc Bristol, England	12/03	3/05	YES	N/A
FY 2005	9	4,943	NAVAIR, Pax River	10/03	SS/ FP	Rolls Royce plc Bristol, England	3/05	3/06	YES	N/A
FY 2006	6	4,626	NAVAIR, Pax River	10/04	SS/ FP	Rolls Royce plc Bristol, England	2/06	3/07	YES	N/A
FY 2007	12	3,944	NAVAIR, Pax River	10/05	SS/ FP	Rolls Royce plc Bristol, England	2/07	3/08	YES	N/A

D. REMARKS

Engine / Accessories only.

Sole source because Rolls Royce is the designer, developer and sole source manufacturer of the T-45 engine.

Only Rolls Royce possesses the unique experience and capabilities to fulfill this requirement. Therefore, no formal RFP's are utilized, and initial discussions begin on the RFP issue dates listed.

PRODUCTION SCHEDULE, P-21			DATE February 2005
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy **B.A. 3**		Weapon System **Trainer Aircraft**	P-1 ITEM NOMENCLATURE **T45TS**

		Production Rate			Procurement Leadtimes					
Item	Manufacturer's Name and Location	MSR	ECON	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
AIRFRAME	BOEING (MDA)	8	12	24	0	6	38	19	25	each
	ST. LOUIS, MO									

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2005												FISCAL YEAR 2006												BAL
						2004	CALENDAR YEAR 2005												CALENDAR YEAR 2006												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
AIRFRAME/BOEING (MDA)	03	N	8	0	8		1	1	0	1	1	0	1	1	0	1	1													0
AIRFRAME/BOEING (MDA)	04	N	14	0	14													1	1	1	1	1	2	1	1	2	1	1	1	0

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2007												FISCAL YEAR 2008												BAL
						2006	CALENDAR YEAR 2007												CALENDAR YEAR 2008												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
AIRFRAME/BOEING (MDA)	05	N	10	0	10	1	1	1	0	1	1	1	1	1	0	1	1													0
AIRFRAME/BOEING (MDA)	06	N	6	0	6													0	1	0	1	0	1	0	1	0	1	0	1	0

PRODUCTION SCHEDULE, P-21			DATE February 2005
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy / **B.A. 3**		Weapon System **Trainer Aircraft**	P-1 ITEM NOMENCLATURE **T45TS**

		Production Rate			Procurement Leadtimes					
Item	Manufacturer's Name and Location	MSR	ECON	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
T45TS Engine	Rolls Royce Bristol England	8	12	24	0	5	30	13	18	each

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2005												FISCAL YEAR 2006												BAL
						2004			CALENDAR YEAR 2005												CALENDAR YEAR 2006										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
T45TS ENGINES/ROLLS ROYCE	04	N	15	0	15						1	1	1	1	1	1	1	1	2	1	1	2	1							0
T45TS ENGINES/ROLLS ROYCE	05	N	9	0	9																		1	1	1	1	1	1	1	2

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2007												FISCAL YEAR 2008												BAL
						2006			CALENDAR YEAR 2007												CALENDAR YEAR 2008										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
T45TS ENGINES/ROLLS ROYCE	05	N	9	7	2	0	1	0	1																					0
T45TS ENGINES/ROLLS ROYCE	06	N	6	0	6						1	0	1	0	1	0	1	0	1	0	1	0								0
T45TS ENGINES/ROLLS ROYCE	07	N	12	0	12																		1	1	1	1	1	1	1	5

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET
P-40

DATE: February 2005

APPROPRIATION/BUDGET ACTIVITY
Aircraft Procurement, Navy/BA3

P-1 ITEM NOMENCLATURE
Joint Primary Aircraft Training System (JPATS)

Program Element for Code B Items:

Other Related Program Elements
N/A

	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Program
QUANTITY	47	A	2	3	0	24	48	48	48	48	60	328
Net P-1 Cost ($M)	198.592	A	24.071	16.968	2.411	161.106	308.939	331.213	353.945	356.114	468.254	2,221.613
Advance Proc ($M)	0	A	0	0	0	0	0	0	0	0	0	0
Wpn Sys Cost ($M)	198.592	A	24.071	16.968	2.411	161.106	308.939	331.213	353.945	356.114	468.254	2,221.613
Initial Spares ($M)	11.447	A	0.000	0.000	0.000	3.938	8.318	3.146	6.304	4.912	15.670	53.735
Proc Cost ($M)	210.039	A	24.071	16.968	2.411	165.044	317.257	334.359	360.249	361.026	483.924	2,275.348
Unit Cost ($M)	4.469	A	12.036	5.656	0.000	6.877	6.610	6.966	7.505	7.521	8.065	6.937

Description:

MISSION: Joint Primary Training System (JPATS) is a joint USN/USAF Acquisition Program designed to replace aging primary training aircraft (T-34/T-37) fleet. USAF is program executor. Principal JPATS mission is primary training for entry-level Navy/Air Force student pilots, associated instructor pilots and primary/intermediate training for USN Naval Flight Officers.

DESCRIPTION: JPATS is a joint USAF/USN Acquisition Category 1C program. JPATS includes the T-6A Texan II (a single turboprop engine, stepped tandem seat, commercially derived aircraft), ground based training system (aircrew training devices, development courses, conversion courses, and operational support), and contractor logistics support. The Training Integrated Management System (TIMS) is a major information management system used to manage all student administrative and training requirements. USAF procurement of 454 T-6A Texan II aircraft was initiated in FY05 and ends in FY08. The USN has programmed procurement of 328 aircraft with the first procurement in FY00.

BASIS FOR FY 2006 REQUEST: FY06 funds the procurement of program support only.

Note: Due to fortuitous contract negotiations, able to procure 3 aircraft in FY 2005.

Date: February 2005

AIRCRAFT COST ANALYSIS P-5 Cost Sheet

Aircraft model: JPATS

$ in thousands

		Prior Years		FY 2004 Qty: 2		FY 2005 Qty: 3		FY 2006 Qty: 0		FY 2007 Qty: 24	
		Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost
1	Airframe CFE	141,762.153	4,660.930	9,321.860	4,810.713	14,432.139	0.000	0.000	5,505.929	132,142.293
7	Rec Flyaway ECO	1,126.600	93.202	186.403	64.435	193.304	0.000	0.000	109.684	2,632.408
8	Rec Flyaway Cost	142,888.753	4,754.132	9,508.263	4,875.148	14,625.443	0.000	0.000	5,615.613	134,774.701
9	Non-Recur Cost	229.674		141.400		139.282		0.000		1,131.846
12	Total Flyaway	143,118.427	4,824.832	9,649.663	4,921.575	14,764.725	0.000	0.000	5,662.773	135,906.547
13	Airframe PGSE	323.877		124.000		190.000		150.000		521.788
16	Pec Trng Eq	52,847.752		12,678.419		135.000		100.000		20,622.234
17	Pub/Tech Eq	217.307		50.000		60.000		75.000		253.410
18	Other ILS	1,476.136		840.635		1,015.580		1,039.392		2,173.630
19	Prod Eng Supt	608.501		728.283		802.695		1,046.608		1,628.391
21	Support Cost	55,473.573		14,421.337		2,203.275		2,411.000		25,199.453
22	Gross P-1 Cost	198,592.000		24,071.000		16,968.000		2,411.000		161,106.000
23	Adv Proc Credit	0.000		0.000		0.000		0.000		0.000
24	Net P-1 Cost	198,592.000		24,071.000		16,968.000		2,411.000		161,106.000
25	Adv Proc CY	0.000		0.000		0.000		0.000		0.000
26	Weapon System Cost	198,592.000		24,071.000		16,968.000		2,411.000		161,106.000
27	Initial Spares	11,447.000		0.000		0.000		0.000		3,938.000
28	Procurement Cost	210,039.000		24,071.000		16,968.000		2,411.000		165,044.000

CLASSIFICATION: UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)	Weapon System JPATS	A. DATE February 2005
B. APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/BA3	C. P-1 ITEM NOMENCLATURE Joint Primary Aircraft Training System (JPATS)	SUBHEAD U3AT

Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	TECH DATA AVAILABLE NOW?	DATE REVISIONS AVAILABLE
Airframe/CFE										
FY04	2	4,661	ASC/YT WPAFB OH	N/A	SS/FP/OPT w/EPA	Raytheon Aircraft Wichita, Kansas	Feb 04	Apr 06	Yes	N/A
FY05	3	4,811	ASC/YT WPAFB OH	N/A	SS/FP/OPT w/EPA	Raytheon Aircraft Wichita, Kansas	Dec 04	Mar 07	Yes	N/A
FY06	0									
FY07	24	5,506	ASC/YT WPAFB OH	Aug-05	SS/FP/OPT w/EPA	Raytheon Aircraft Wichita, Kansas	Feb 07	Mar 09	Yes	N/A

D. REMARKS

PRODUCTION SCHEDULE, P-21 | DATE February 2005

APPROPRIATION/BUDGET ACTIVITY: Aircraft Procurement, Navy/BA3 | Weapon System: **Trainer Aircraft** | P-1 ITEM NOMENCLATURE: Joint Primary Aircraft Training System (JPATS)

Item	Manufacturer's Name and Location	Production Rate MSR	ECON	MAX	Procurement Leadtimes ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
AIR VEHICLE	RAYTHEON AIRCRAFT CO	24	48	72	0	3	33	27	30	EACH
	WICHITA, KANSAS									
*1 shift / 2 shifts										

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2005 / 2004 OCT	NOV	DEC	CALENDAR YEAR 2005 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	FISCAL YEAR 2006 / CALENDAR YEAR 2006 OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	BAL
A/V--RAYTHEON AIRCRAFT CO	02	N	7	3	4	2	1	1																						0
A/V--RAYTHEON AIRCRAFT CO	03	N	4	0	4																1	2	1							0
A/V--RAYTHEON AIRCRAFT CO	04	N	2	0	2																			2						0

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2007 / 2006 OCT	NOV	DEC	CALENDAR YEAR 2007 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	FISCAL YEAR 2008 / CALENDAR YEAR 2008 OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	BAL
A/V--RAYTHEON AIRCRAFT CO	05	N	3	0	3						2	1																		0

DD Form 2445, JUL 87 | Previous editions are obsolete | P-1 SHOPPING LIST ITEM NO. 20

PRODUCTION SCHEDULE, P-21					DATE February 2005
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/BA3		Weapon System **Trainer Aircraft**		P-1 ITEM NOMENCLATURE Joint Primary Aircraft Training System (JPATS)	

		Production Rate			Procurement Leadtimes					
Item	Manufacturer's Name and Location	MSR	ECON	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
AIR VEHICLE	RAYTHEON AIRCRAFT CO	24	48	72	0	3	33	27	30	EACH
	WICHITA, KANSAS									
*1 shift / 2 shifts										

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2009												FISCAL YEAR 2010												BAL
						2008			CALENDAR YEAR 2009										CALENDAR YEAR 2010												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
A/V--RAYTHEON AIRCRAFT CO	07	N	24	0	24						2	2	2	2	2	2	2	2	2	2	2									0

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2011												FISCAL YEAR 2012												BAL
						2010			CALENDAR YEAR 2011										CALENDAR YEAR 2012												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

DD Form 2445, JUL 87 Previous editions are obsolete P-1 SHOPPING LIST ITEM NO. 20

BUDGET ITEM JUSTIFICATION SHEET
P-40

DATE: February 2005

APPROPRIATION/BUDGET ACTIVITY
Aircraft Procurement, Navy/BA-4

P-1 ITEM NOMENCLATURE
KC-130J (MYP)

Program Element for Code B Items:
N/A

Other Related Program Elements

	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Program
QUANTITY	17	A	0	4	12						TBD	TBD
Net P-1 Cost ($M)	1,186.859		36.683	277.610	1,092.743	12.670	14.714				TBD	TBD
Advance Proc ($M)	8.000		41.511	45.355							TBD	TBD
Wpn Sys Cost ($M)	1,194.859		78.194	322.965	1,092.743	12.670	14.714				TBD	TBD
Initial Spares ($M)	39.459		67.046	15.884	39.490						TBD	TBD
Proc Cost ($M)	1,234.318		145.240	338.849	1,132.233	12.670	14.714				TBD	TBD
Unit Cost ($M)	72.607			84.712	94.353						TBD	TBD

Description:
The KC-130J aircraft is an all metal, high-wing, long-range, land-based monoplane. It is designed for cargo, tanker and troop carrier operations. For tanker operations, the aircrew will consist of a pilot, co-pilot, augmented crew member and two air refueling observers. Features include wing mounted refueling pods, an internal cargo ramp and door, crew and cargo compartment pressurization, ground and in-flight refueling, thermal deicing systems and a Heads-Up Display (HUD). It is designed to take off and land on unimproved runways.

Mission:
The mission of the KC-130J is to provide tactical in-flight refueling and assault support transport. As a tactical transport, it is capable of conventional or aerial delivery of personnel or cargo. The aircraft is capable of carrying 92 combat troops or 64 paratroopers with equipment or 64 litters when configured as an ambulance. The aircraft is equipped for in-flight refueling to service two aircraft simultaneously and has a removable 3,600 gallon (13,627 liter) fuel tank in the cargo compartment.

The KC-130J has the capability to refuel low-speed helicopters and high-speed jet aircraft. Aerial refueling of helicopters is normally conducted at 6,000 feet or below, at an airspeed of 115 KTS TAS and requires a ground change of the refueling basket. The KC-130J aircraft is powered by four Allison AE 2100D3 Turbo-Prop Engines with four six-bladed composite propellers. The cockpit includes state-of-the-art electronics with Liquid Crystal Display (LCD) instrumentation. The improved power performance of the KC-130J provides 40 percent greater range, 25 percent higher cruise ceiling, 46 percent decrease in time-to-climb, 21 percent increase in maximum speed and 41 percent decrease in maximum effort take-off run over the existing KC-130F/R/T models.

Basis for FY 2006 Request:
The FY 2006 budget request provides for 12 aircraft and support. FY 2006 will be the last year of a multiyear contract (FY 2003-FY2006).

Date: February 2005

AIRCRAFT COST ANALYSIS P-5 Cost Sheet

Aircraft model: KC-130J (MYP) $ in thousands

		Prior Years	FY 2004 Qty:		FY 2005 Qty: 4		FY 2006 Qty: 12		FY 2007 Qty:	
		Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost*	Total Cost	Unit Cost	Total Cost
1	Airframe CFE	1,032,300.000			69,900.000	279,600.000	87,355.000	1,048,260.000		
2	CFE Electronics									
3	GFE Electronics	14,288.972			1,386.708	5,546.831	1,408.895	16,906.740		
4	Engines/Eng Acc									
5	Armament									
6	Other GFE	4,036.365			353.186	1,412.745	359.261	4,311.137		
7	Rec Flyaway ECO									
8	Rec Flyaway Cost	1,050,625.337			71,639.894	286,559.577	89,123.156	1,069,477.877		
9	Non-Recur Cost	1,200.000								
10	Ancillary Equip									
11										
12	Total Flyaway	1,051,825.337				286,559.577		1,069,477.877		
13	Airframe PGSE	1,678.861				697.183		1,135.660		
14	Engine PGSE	2,138.781						1,825.271		
15	Avionics PGSE	3,512.885		754.000				2,170.868		
16	Pec Trng Eq	13,425.000		23,682.931		24,550.000	.	47,174.475		
17	Pub/Tech Eq	2,124.546		8.000		53.652		533.169		
18	Other ILS	50,569.005		4,488.208		4,076.905		14,576.008		6,994.120
19	Prod Eng Supt	42,984.051		7,749.861		5,183.683		7,204.671		5,675.880
20	APN-4 Spares	18,600.040								
21	Support Cost	135,033.169		36,683.000		34,561.423		74,620.123		12,670.000
22	Gross P-1 Cost	1,186,858.506		36,683.000		321,121.000		1,144,098.000		12,670.000
23	Adv Proc Credit					(43,511.000)		(51,355.000)		
24	Net P-1 Cost	1,186,858.506		36,683.000		277,610.000		1,092,743.000		12,670.000
25	Adv Proc CY	8,000.000		41,511.000		45,355.000				
26	Weapon System Cost	1,194,858.506		78,194.000		322,965.000		1,092,743.000		12,670.000
27	Initial Spares	39,459.165		67,046.000		15,884.000		39,490.000		
28	Procurement Cost	1,234,317.671		145,240.000		338,849.000		1,132,233.000		12,670.000

*Price of FY06 aircraft may increase due to break of joint Air Force/USMC MYP contract. Revised price will not be known until contract negotiations are finalized in December 2005.

CLASSIFICATION: **UNCLASSIFIED**

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)	Weapon System KC-130J (MYP)	A. DATE February 2005
B. APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/BA-4	C. P-1 ITEM NOMENCLATURE KC-130J (MYP)	SUBHEAD 44A9

Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST ($000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	TECH DATA AVAILABLE NOW?	DATE REVISIONS AVAILABLE
Airframe/CFE										
FY 2004 for FY 2005 Adv Proc			USAF WRIGHT PATT OHIO	N/A	MYP	LMAS MARIETTA, GA	NOV 03			
FY 2005	4	$69,900	USAF WRIGHT PATT OHIO	N/A	MYP	LMAS MARIETTA, GA	DEC 04	AUG 05	N/A	N/A
FY 2005 for FY 2006 Adv Proc			USAF WRIGHT PATT OHIO	N/A	MYP	LMAS MARIETTA, GA	DEC 04			
FY 2006	12	$87,355	USAF WRIGHT PATT OHIO	N/A	MYP	LMAS MARIETTA, GA	DEC 05	APR 07	N/A	N/A

D. REMARKS

PRODUCTION SCHEDULE, P-21							DATE February 2005			
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/BA-4			Weapon System **KC-130J (MYP)**		P-1 ITEM NOMENCLATURE KC-130J					
		Production Rate			Procurement Leadtimes					
Item	Manufacturer's Name and Location	MSR	ECON	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
KC-130J	LMAS, MARIETTA, GA	N/A	N/A	N/A	0	3	N/A	28	31	E

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2004												FISCAL YEAR 2005												BAL
						2003			CALENDAR YEAR 2004										CALENDAR YEAR 2005												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
KC-130J/LMAS	03	N	4	0	4													1	1			1	1							0
KC-130J/LMAS	05	N	4	0	4																							1	2	1

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2006												FISCAL YEAR 2007												BAL
						2005			CALENDAR YEAR 2006										CALENDAR YEAR 2007												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
KC-130J/LMAS	05	N	4	3	1	1																								0
KC-130J/LMAS	06	N	12*	0	12																			1	1	1	1			8

*Delivery of FY06 aircraft may change due to break of Air Force/USMC MYP contract. Revised schedule will not be known until contract negotiations are finalized in December 2005.

BUDGET ITEM JUSTIFICATION SHEET P-40												DATE: **February 2005**	
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy/BA-4**								P-1 ITEM NOMENCLATURE **KC-130J ADVANCE PROCUREMENT (MYP)**					
Program Element for Code B Items: **N/A**								Other Related Program Elements					
	Prior Years	ID Code		FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
COST (In Millions)	**$8.000**	**A**		**$41.511**	**$45.355**							**TBD**	**TBD**

DESCRIPTION:
The KC-130J aircraft is an all metal, high-wing, long-range, land-based monoplane. It is designed for cargo, tanker and troop carrier operations. For tanker operations, the aircrew will consist of a pilot, co-pilot, augmented crew member and two air refueling observers. Features include wing mounted refueling pods, an internal cargo ramp and door, crew and cargo compartment pressurization, ground and in-flight refueling, thermal deicing systems and a Heads-Up Display (HUD). It is designed to take off and land on unimproved runways.

MISSION:
The mission of the KC-130J is to provide tactical in-flight refueling and assault support transport. As a tactical transport, it is capable of conventional or aerial delivery of personnel or cargo. The aircraft is capable of carrying 92 combat troops or 64 paratroopers with equipment or 64 litters when configured as an ambulance. The aircraft is equipped for in-flight refueling to service two aircraft simultaneously and has a removable 3,600 gallon (13,627 liter) fuel tank in the cargo compartment.

The KC-130J has the capability to refuel low-speed helicopters and high-speed jet aircraft. Aerial refueling of helicopters is normally conducted at 6,000 feet or below, at an airspeed of 115 KTS TAS and requires a ground change of the refueling basket. The KC-130J aircraft is powered by four Allison AE 2100D3 Turbo-Prop Engines with four six-bladed composite propellers. The cockpit includes state-of-the-art electronics with Liquid Crystal Display (LCD) instrumentation. The improved power performance of the KC-130J provides 40 percent greater range, 25 percent higher cruise ceiling, 46 percent decrease in time-to-climb, 21 percent increase in maximum speed and 41 percent decrease in maximum effort take-off run over the existing KC-130F/R/T models.

BASIS FOR FY 2006 BUDGET REQUEST:
No funding is requested .

Exhibit P-10 Advance Procurement Requirements Analysis (Page 1 - Funding)							Date: **February 2005**						
Appropriation (Treas) Code/CC/BA/BSA/Item Control Number **Aircraft Procurement, Navy, Budget Activity 04, Other Aircraft, Item 22**							P-1 Line Item Nomenclature **KC-130J ADVANCE PROCUREMENT (MYP)**						
Weapon System **KC-130J**					First System (BY1) Award Date **March 03**				Interval Between Systems **1 Month**				
($ in Millions)													
	PLT	When Rqd	Prior Years	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	To Complete	Total
End Item Qty			17	0	4	12							
CFE - Airframe T.L.	21												
EOQ/Long Lead													
FOR FY 2005 EOQ/Long Lead*			2.0	40.0									
FOR FY 2006 EOQ/Long Lead			2.0		40.0								
FOR FY 2007 EOQ/Long Lead			2.0										
FOR FY 2008 EOQ/Long Lead			2.0										
FOR FY 2009 Long Lead													
FOR FY 2010 Long Lead													
FOR FY 2010 EOQ													
FOR FY 2011 EOQ/Long Lead													
FOR FY 2013-2016 EOQ													
FOR FY 2013 Long Lead													
TOTAL EOQ/Long Lead	Var.	Var.	8.0	40.0	40.0								
GFE Electronics	18-20			0.9	4.5								
GFE Other	15-20			0.6	0.9								
TOTAL GFE Long Lead				1.5	5.4								
Total AP			8.0	41.5	45.4								

Description:
The EOQ/Long Lead line item funds EOQ requirements for the MYP and termination liability for long-lead requirements for the KC-130J production program. The GFE Electronics and GFE Other Long Lead line items fund procurement of long lead parts and materials necessary to maintain the KC-130J delivery schedule.

Exhibit P-10 Advance Procurement Requirements Analysis (Page 2 - Budget Justification)							Date: **February 2005**		
Appropriation (Treasury) Code/CC/BA/BSA/Item Control Number **Aircraft Procurement, Navy, Budget Activity 04, Other Aircraft, Item 22**				Weapon System **KC-130J**			P-1 Line Item Nomenclature **KC-130J ADVANCE PROCUREMENT (MYP)**		
(TOA, $ in Millions)									
	PLT	QPA	Unit Cost	FY 2005 for FY 2006 Qty	FY 2005 Contract Forecast Date	FY 2005 Total Cost Request	FY 2006 for FY 2007 Qty	FY 2006 Contract Forecast Date	FY 2006Total Cost Request
End Item				4					
Airframe Long Lead	21	N/A	N/A	T.L. for 4	Dec 04	40.0			
GFE Electronics	18-20	1	Var	4	Var	4.5			
GFE Other	15-20	1	Var	4	Var	0.9			
Total Advance Procurement						45.4			

Description:

BUDGET ITEM JUSTIFICATION SHEET
P-40

DATE: FEBRUARY 2005

APPROPRIATION/BUDGET ACTIVITY
Aircraft Procurement, Navy, BA4

P-1 ITEM NOMENCLATURE
F-5 Adversary

Program Element for Code B Items:

Other Related Program Elements

	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Program
QUANTITY	5	A	4	9	9	5						32
Net P-1 Cost ($M)	2.500		3.022	4.470	4.517	2.522						17.031
Advance Proc ($M)												
Wpn Sys Cost ($M)	2.500		3.022	4.470	4.517	2.522						17.031
Initial Spares ($M)												
Proc Cost ($M)	2.500		3.022	4.470	4.517	2.522						17.031
Unit Cost ($M)	0.500		0.756	0.497	0.502	0.504						0.532

Description: The F-5E is a single seat, dual engine supersonic land based fighter. It is designed to a service life of 4000 flight hours, 4000 landings, and 5000 gear extension/retraction cycles, given a severe usage spectrum, such as the USN/USMC adversary mission. On average the USN/USMC F-5E aircraft have 7000 flight hours compared to the Swiss aircraft that average 2500 flight hours. The aircraft is powered by dual J85-21C engines. On average the F-5E has a $2500.00 per hour flight cost which is a significant savings compared to FA/18 or F-16 platform to perform Adversary training.

Mission: The mission of the F-5E is to provide the Tactical Air Operational Fleet with Adversary training during the Strike Fighter Advanced Readiness Program (SFARP). As a supersonic aircraft, it is capable of multi-threat environment. Most sorties flown by the F-5E involve multi-aircraft scenarios flying against deploying F/A-18 and F-14 fighter aircraft. This mission cannot be fulfilled through non-material alternatives.

Basis for FY 2006 Request:
Funds are requested in FY 2006 for the procurement of nine F-5 Adversary aircraft from the government of Switzerland to replace as one-for-one replacement for USN high time aircraft.

CLASSIFICATION: **UNCLASSIFIED**

WEAPONS SYSTEM COST ANALYSIS P-5	Weapon System	DATE: **February 2005**
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy/BA4**	ID Code **A**	P-1 ITEM NOMENCLATURE/SUBHEAD **F-5 Adversary**

COST CODE	ELEMENT OF COST	QTY	TOTAL COST IN THOUSANDS OF DOLLARS												
			Prior Years	FY 2004			FY 2005			FY 2006			FY 2007		
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
1	Airframe/CFE	5	2,500.000	4	755.500	3,022.000	9	496.667	4,470.000	9	501.889	4,517.000	5	504.400	2,522.000
2	CFE Electronics														
3	GFE Electronics														
4	Engines/Eng Acc														
5	Armament														
6	Other GFE														
7	Rec Flyaway ECO														
8	Rec Flyaway Cost														
9	Non-Recur Cost														
10	Ancillary Equip														
11															
12	Total Flyaway		2,500.000		755.500	3,022.000		496.667	4,470.000		501.889	4,517.000		504.400	2,522.000
13	Airframe PGSE														
14	Engine PGSE														
15	Avionics PGSE														
16	Pec Trng Eq														
17	Pub/Tech Eq														
18	Other ILS														
19	Prod Eng Supt														
20															
21	Support Cost														
22	Gross P-1 Cost		2,500.000		755.500	3,022.000		496.667	4,470.000		501.889	4,517.000		504.400	2,522.000
23	Adv Proc Credit														
24	Net P-1 Cost		2,500.000		755.500	3,022.000		496.667	4,470.000		501.889	4,517.000		504.400	2,522.000
25	Adv Proc CY														
26	Weapon System Cost		2,500.000		755.500	3,022.000		496.667	4,470.000		501.889	4,517.000		504.400	2,522.000
27	Initial Spares														
28	Procurement Cost		2,500.000		755.500	3,022.000		496.667	4,470.000		501.889	4,517.000		504.400	2,522.000
			2,500.000			3,022.000			4,470.000			4,517.000			2,522.000

CLASSIFICATION: UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)	Weapon System	A. DATE February 2005
B. APPROPRIATION/BUDGET ACTIVITY: Aircraft Procurement, Navy/BA-4	C. P-1 ITEM NOMENCLATURE: F-5 Adversary	SUBHEAD: 44F5

Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	TECH DATA AVAILABLE NOW?	DATE REVISIONS AVAILABLE
Airframe/CFE										
FY 2004	4	755.500	NAVAIR	N/A	FFP	SWISS GOVERNMENT SWITZERLAND	11/03	12/03	N/A	N/A
FY 2005	9	496.667	NAVAIR	N/A	FFP	SWISS GOVERNMENT SWITZERLAND	11/04	12/04	N/A	N/A
FY 2006	9	501.889	NAVAIR	N/A	FFP	SWISS GOVERNMENT SWITZERLAND	11/05	12/05	N/A	N/A
FY 2007	5	504.400	NAVAIR	N/A	FFP	SWISS GOVERNMENT SWITZERLAND	11/06	12/06	N/A	N/A

D. REMARKS

FY 2006/2007 BUDGET PRODUCTION SCHEDULE, P-21					DATE **February 2005**
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy/BA4**			Weapon System		P-1 ITEM NOMENCLATURE **F-5 Adversary**

		Production Rate			Procurement Leadtimes					
Item	Manufacturer's Name and Location	MSR	ECON	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
F-5	Swiss Government	N/A	N/A	N/A	0	1	0	0	1	E
	Switzerland									

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2004												FISCAL YEAR 2005												BAL
						2003			CALENDAR YEAR 2004										CALENDAR YEAR 2005												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Swiss Government	04	N	4	0	4		A	1	1	1	1																			0
Swiss Government	05	N	9	0	9														A	2	2	2	2	1						0

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2006												FISCAL YEAR 2007												BAL
						2005			CALENDAR YEAR 2006										CALENDAR YEAR 2007												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Swiss Government	06	N	9	0	9		A	2	2	2	2	1																		0
Swiss Government	07	N	5	0	5														A	2	2	1								0

Remarks:

DEPARTMENT OF THE NAVY
FISCAL YEAR (FY) 2006/FY 2007
BUDGET ESTIMATES

JUSTIFICATION OF ESTIMATES
FEBRUARY 2005

AIRCRAFT PROCUREMENT, NAVY
Volume II:
BUDGET ACTIVITY 5

DEPARTMENT OF THE NAVY
FY 2006 PROCUREMENT PROGRAM EXHIBIT P-1

APPROPRIATION: 1506N AIRCRAFT PROCUREMENT, NAVY DATE: FEBRUARY 2005

MILLIONS OF DOLLARS

LINE NO	ITEM NOMENCLATURE	IDENT CODE	FY 2004 QUANTITY	FY 2004 COST	FY 2005 QUANTITY	FY 2005 COST	FY 2006 QUANTITY	FY 2006 COST	SEC
	BUDGET ACTIVITY 05: MODIFICATION OF AIRCRAFT								
	MODIFICATION OF AIRCRAFT								
24	EA-6 SERIES	A		235.8		115.8		120.6	U
25	AV-8 SERIES	A		64.0		25.9		34.9	U
26	ADVERSARY	A		2.6		5.4		5.0	U
27	F-18 SERIES	A		373.0		424.1		422.4	U
28	H-46 SERIES	A		99.4		70.9		55.4	U
29	AH-1W SERIES	A		35.4		5.6		7.7	U
30	H-53 SERIES	A		72.1		18.2		14.9	U
31	SH-60 SERIES	A		16.7		11.6		12.4	U
32	H-1 SERIES	A		13.4		8.5		7.4	U
33	EP-3 SERIES	A		49.9		33.6		55.1	U
34	P-3 SERIES	A		141.5		155.3		163.3	U
35	S-3 SERIES	A		6.7		1.9		.8	U
36	E-2 SERIES	A		49.8		15.1		13.7	U
37	TRAINER A/C SERIES	A		11.2		14.0		14.0	U
38	C-2A	A		37.3		29.5		29.6	U
39	C-130 SERIES	A		13.4		17.9		42.7	U
40	FEWSG	A		.9		.6		.6	U
41	CARGO/TRANSPORT A/C SERIES	A		11.4		8.3		19.9	U
42	E-6 SERIES	A		48.0		19.6		11.2	U
43	EXECUTIVE HELICOPTERS SERIES	A		26.3		21.7		16.7	U

DEPARTMENT OF THE NAVY
FY 2006 PROCUREMENT PROGRAM EXHIBIT P-1

APPROPRIATION: 1506N AIRCRAFT PROCUREMENT, NAVY DATE: FEBRUARY 2005

MILLIONS OF DOLLARS

LINE NO	ITEM NOMENCLATURE	IDENT CODE	FY 2004 QUANTITY	FY 2004 COST	FY 2005 QUANTITY	FY 2005 COST	FY 2006 QUANTITY	FY 2006 COST	SEC
44	SPECIAL PROJECT AIRCRAFT	A		56.0		16.6		20.8	U
45	T-45 SERIES	A		20.6		44.0		50.0	U
46	POWER PLANT CHANGES	A		23.4		23.7		26.3	U
47	JPATS SERIES	A		.5		.6		.7	U
48	AVIATION LIFE SUPPORT MODS	A		3.1		2.5		.3	U
49	COMMON ECM EQUIPMENT	A		48.1		53.1		51.4	U
50	COMMON AVIONICS CHANGES	A		137.6		166.9		214.2	U
51	COMMON DEFENSIVE WEAPON SYSTEM	A				7.7		13.8	U
52	ID SYSTEMS	A				1.6		7.7	U
53	V-22 (TILT/ROTOR ACFT) OSPREY	B		6.8		3.4		81.0	U
TOTAL MODIFICATION OF AIRCRAFT				1,605.1		1,323.3		1,514.5	
TOTAL AIRCRAFT PROCUREMENT, NAVY				1,605.1		1,323.3		1,514.5	

Fiscal Year 2006 Budget Estimates
Budget Appendix Extract Language

AIRCRAFT PROCUREMENT, NAVY (APN)

For construction, procurement, production, modification, and modernization of aircraft, equipment, including ordnance, spare parts, and accessories therefor; specialized equipment; expansion of public and private plants, including the land necessary therefor, and such lands and interests therein, may be acquired, and construction prosecuted thereon prior to approval of title; and procurement and installation of equipment, appliances, and machine tools in public and private plants; reserve plant and Government and contractor-owned equipment layaway, **[**$8,912,042,000**]** *$10,517,126,000*, to remain available for obligation until September 30, **[**2007**]** *2008, of which $57,779,000 shall be available for the Navy Reserve and the Marine Corps Reserve. (10 U.S.C. 5013, 5063, 7201, 7341; Department of Defense Appropriations Act, 2005.)*

Exhibit P-40, BUDGET ITEM JUSTIFICATION						DATE: **February 2005**						
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy/APN-5 Aircraft Modifications**						P-1 ITEM NOMENCLATURE **EA-6 Series Modifications**						
Program Element for Code B Items:						Other Related Program Elements						
	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
QTY		A										
COST (In Millions)	**2227.8**	A	**235.8**	**115.8**	**120.6**	**49.2**	**23.0**	**18.4**	**18.8**	**19.3**	**254.5**	**3083.2**

This line item funds modifications to the EA-6B aircraft. The EA-6B Prowler is a four-seat derivative of the A-6 Intruder medium attack aircraft. Among its features are a computer controlled electronic surveillance and control system and high power jamming transmitters in various frequency bands that are contained in pods mounted externally on the five aircraft pylons. The overall goal of the modifications budgeted in FY 2006 is the procurement of Wing Center Sections (WCS), Outer Wing Panel (OWP), Low Band Transmitters, Block 89A upgrades, ASN-130A Replacement, J52 Reliability Improvements, Multifunctional Information Distribution System (LINK-16) and ICAP III upgrades.

(TOA, $ in Millions)

OSIP No.	Description	Prior Years	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
19-79	ALQ-99 PODS	765.7	13.7	11.3	11.2	14.5	14.3	18.2	18.8	19.3	96.8	**984.1**
32-85	EA-6B Structural Improvements	755.0	171.6	58.6	43.8	23.2	8.7	0.1			7.9	**1069.0**
	DERF Non-add	4.3										**4.3**
111-87	J-52 Engines	38.8	4.6	0.3	0.3	0.3					0.1	**44.4**
	DERF Non-add	6.5										**6.5**
42-93	EA-6B Block 89A Avionics	516.7	14.8	9.4	5.5	1.6						**547.9**
01-01	ICAP III	143.9	21.8	24.8	52.2	8.3					143.7	**394.7**
05-03	MIDS	7.7	9.2	11.4	7.6	1.3					5.9	**43.1**
	Total	**2227.8**	**235.8**	**115.8**	**120.6**	**49.2**	**23.0**	**18.3**	**18.8**	**19.3**	**254.4**	**3083.2**

Totals may not add due to rounding

FY 2002 Defense Emergency Response Funding (DERF) received augments OSIPs 32-85 and 111-87.

Exhibit P-3a Individual Modification

MODIFICATION TITLE: ALQ-99 PODS

MODELS OF SYSTEMS AFFECTED: TYPE MODIFICATION: Reliability/Mission Capability

DESCRIPTION/JUSTIFICATION:

UNIVERSAL EXCITER UPGRADE

The Universal Exciter Upgrade (UEU) provides a 30% improvement in reliability over that of the current Universal Exciter (UE / MTBF = 100 hrs), increased maintainability, elimination of multiple configurations and performance improvements. ORD #474-88-97 defines the UEU requirements. The UEU entered Engineering and Manufacturing Development in 1991 and achieved Milestone III approval for full rate production in Apr 96. A contract for 119 UEUs was awarded in Sep 96. Follow-on procurements are in-process/planned for fiscal years 98-01, which will bring total UEU procurements up to 480. Pursuant to that inventory objective, an FY99 Congressional (Kosovo Supplemental) add of $39M was received in Sep 99. The modification of UEs to UEUs is accomplished via "turn key" sole source contract. Initial UEU deliveries occurred in Jul 98, which allowed for an Initial Operational Capability in Apr 99. With the planned follow-on procurements, deliveries will continue out into 2003. GFE and consumables are required to support these deliveries until FY03. ALQ-99 Exciters are Weapons Replaceable Assemblies that are readily removed and installed in the ALQ-99 Pod, thus no installation effort/funding is associated with this program. This capability will be available for all the 119 aircraft, which includes four Naval Air Reserve aircraft. This requirement does not apply to the National Guard.

LOW BAND TRANSMITTER

The Low Band Transmitter (LBT) will provide the EA-6B with an expanded jamming capability against the Early Warning/Acquisition Radars and Communication Links of modern Integrated Air Defense Systems. Reliability and maintainability will also be greatly improved over that of current ALQ-99 Transmitters. Following a competitive acquisition and Milestone II approval, Engineering and Manufacturing Development was initiated in Sep 96. Critical Design Review was conditionally approved in Dec 97; however, a follow-up review to close out action items was completed in Nov 98. Testing to date has consisted of prototype testing conducted at government and contractor facilities. This testing has successfully demonstrated the key performance parameters identified in OPNAV/N88 ltr Ser No. N880C3/6S663399 of 26 JUL 96 can be attained by the present design. Fabrication of Engineering Development Models (EDMs) began in FY00. EDMs will be used for contractor and Navy testing required to support LRIP and Milestone III approval. The LBT inventory objective is 208. ALQ-99 Transmitters are Weapons Replaceable Assemblies that are readily removed and installed in the ALQ-99 Pod, thus no installation effort/funding is associated with this program. Aircraft Operational Flight Program changes are required to support aircraft integration of this transmitter. This capability will be available for all 119 aircraft, which includes four Naval Air Reserve aircraft. This requirement does not apply to the National Guard.

PAO TRANSMITTER COOLANT MODIFICATION

EA-6B/ALQ-99 Transmitters and support equipment currently use Coolanol for the dielectric coolant required to dissipate heat from and prevent arcing of high voltage power supplies. Coolanol costs over $300/gallon, is a known carcinogen and must be handled as a hazardous material. Given that the EA-6B is the sole remaining user of Coolanol 35, it's future availability is in doubt. The replacement coolant for Coolanol is Polyalphaolefin (PAO), which costs less than $25/gallon and is non-hazardous. PAO is widely used by other U.S. military platforms and systems. Additionally, the equipment has to be converted in order to be compatible with the Consolidated Automated Support System (CASS) High Power Device Test Set (HPDTS) modification. HPDTS will allow CASS to test ALQ-99 Transmitters, thereby eliminating the requirements for the EA-6B peculiar Transmitter Test Station (TTS). This transition from the TTS to the CASS began in Dec 00. The cooling system of the HPDTS only supports PAO, thus all units tested with it must use PAO as their coolant. ALQ-99 Transmitters require modification in order to utilize PAO, because the polymer-based material currently used as high voltage lead insulation and wire harness identification markers dissolve when exposed to PAO. This material must be replaced with an improved material that through testing has been identified to be impervious to PAO. ECP AV-97-038 delineates the efforts requires to modify Transmitters to a PAO compatible configuration. 1296 Transmitters and 1400 high voltage power supply modules will be converted by a government/contractor field modification team. This requirement does not apply to the National Guard. In FY03, the total program increased $2M as result of Congressional Plus-up for Band-4 TWT improvement.

SUPPORT EQUIPMENT

Introduction of new/modified ALQ-99 pod equipment requires new/modified organizational, intermediate and depot level support equipment, such as modifications to the pod test set to support Low Band Transmitter and Band 7/8 Transmitter, modifications to High Power Device Test Set (HPDTS) to extend frequency coverage to test Band 9/10 transmitters, new Test Program Sets to test Low Band Transmitter and Band 9/10 Transmitters and modified Intermediate/depot level support equipment to test Band 7/8 Transmitters.

ENGINEERING CHANGES

This ALQ-99 PODS Operational and Safety Improvement Program covers ALQ-99 Pod modifications required to improve reliability/maintainability/availability, enhance mission capability, resolve obsolescence issues, and correct defiencies found in testing or in the field

BAND 9/10 TRANSMITTER:

The Band 9/10 Transmitter (Band 9/10) provides the EA-6B an expanded jamming capability against target tracking/fire control radars of modern Integrated Air Defense Systems. Reliability and maintainability are also greatly improved over that of current ALQ-99 Transmitters. Following a competitive acquisition, Engineering and Manufacturing Development of the Band 9/10 was initiated in Jan 92. Production began in FY98, with Initial Operational Capability being accomplished in Nov 99. A total of 204 Band 9/10 Transmitters were procured between FY98 and FY00 with the last transmitter delivered in Nov 02. The Band 9/10 inventory objective is 263. ALQ-99 Transmitters are Weapons Replaceable Assemblies that are readily removed and installed in the ALQ-99 Pod, thus no installation effort/funding is associated with this program. This capability will be available for all the 119 EA-6B aircraft, which includes four Naval Air Reserve aircraft. This requirement does not apply to the National Guard. In FY02, the total program increased $13.5M as result of a Congressional Plus-up to procure ten (10) additional Band 9/10 Transmitters. In FY03, the total program increased $14M as result of Congressional Plus-up for 14 additional Band 9/10 Transmitters and support.

EXTENDED HIGH BAND RADOME:

A modified ALQ-99 Extended High Band Radome is required for compatibility with the Band 9/10 Transmitter (Band 9/10). This Radome incorporates unique sections of the radome composite structure to prevent damage by impinging energy radiation from the Band 9/10. Between FY98 and FY01, 250 ALQ-99 radomes were modified to this configuration. Future requirements for these radomes will be met by new production, vice modification, as there are no more existing assets to modify. ALQ-99 Radomes are Weapons Replaceable Assemblies that are readily removed and installed in the ALQ-99 Pod, thus no installation effort/funding is associated with this program. This capability will be available for the total of 122 EA-6B aircraft, which includes four Naval Air Reserve aircraft. This requirement does not apply to the National Guard. In FY02, the total program increased $.5M as result of a Congressional Plus-up to procure ten (10) Band 9/10 Radomes.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:
Delivery of UEU Engineering Design Models (EDMs) began in the first quarter of FY1995 with developmental and operational testing completed in the second quarter of FY1996 achieving approval for full production, milestone III in March 1996 and followed by a production contract award. LBT program is proceeding though remainder of E&MD with LRIP decision expected 2nd quarter of FY2005.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$			Qty	$	Qty	$
RDT&E		16.1																				
PROCUREMENT																						
Installation Kits																						
Installation Kits N/R																						
Installation Equipment	2,575	199.9																				
Universal Exciter Upgrade	480	223.3																				
Low band Transmitter					10	7.9	10	9.6	17	13.3												
PAO Transmitter Mod	1,296	5.8																				
Band 9/10 Transmitter	235	132.8																				
Band 9/10 Radome	260	4.9																				
ALQ-99 Band-4 TWT IM		2.0																				
BAND 9/10 GFE		0.3																				
REPAIR OF GFE (UEU)		6.2																				
Installation Equipment N/R		11.2		7.3		*		*		*												
Engineering Change Orders		1.2		0.1		*																
Data		9.6		0.1		*		0.1		0.1												
Training Equipment		1.6																				
Support Equipment	6	98.7		0.7		0.6		0.1		0.1												
ILS		4.3																				
Other Support		45.2		5.6		2.8		1.6		1.1												
Interim Contractor Support																						
Installation Cost	1,207	18.9																				
Total Procurement		**765.7**		**13.7**		**11.3**		**11.2**		**14.5**												

Notes:
1. UEU Repair of GFE costs are included in the UEU Installed Equipment line.
2. Install schedules not provided for GFE that fits into the POD without structural modification, or for equipment not requiring APN-5 funding for installation into the pod/aircraft (e.g.: LBT, UEU).
3. Funding for Repair of GFE was reported in Installation Cost for PB01 and has been redirected to the Install Equipment line under UEU Install Equipment.
4. Total Band 9/10 Transmitters include 5 EDM's.
5. Totals may not add due to rounding.
6. * Totals less than 50k.

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: **EA-6B Structural Improvements (OSIP 32-85)**

MODELS OF SYSTEMS AFFECTED: EA-6 Series Modifications | TYPE MODIFICATION: Safety of Flight

DESCRIPTION/JUSTIFICATION: This Omnibus Operational and Safety Improvement Program covers EA-6B Structural modifications (includes ejection seat, canopies, etc.) and EA-6B peculiar avionics modifications arising from test/deficiencies and those reliability and safety of flight related improvements. Included are Structural Improvement modifications which includes fixes for areas found to be deficient during aircraft fatigue test; **Wing Center Sections** (WCS) which replace wings that have either cracked due to stress corrosion or have reached their wing fatigue life limit; **Structural Data Recording System** (SDRS) which will provide a more accurate measurement of Fatigue Life Expenditure (FLE); Outer Wing Panels(OWP) will replace OWPs that have reached their fatigue life limit; Aircraft wiring Upgrades, Hydraulic Systems Upgrades, and Flight Control Surface Upgrades. This OSIP also includes the Connectivity and USQ-113 programs. In FY02 received supplemental funds in the amount of $35M for 10 additional WCS and $29.4M to reopen the OWP production line. In FY03, total program increased as a result of Congressional Plus-ups in the amount of $9M for 3 additional WCS, USQ113 Jammers $10.5M, On-Board Oxygen Generating System (OBOGS) $1M, and Ready Room Mission Rehearsal System $3.1M, and an additional $60M for OWP. In FY04, total program increased as a result of Congressional Plus-ups in the amount of $15M for WCS acceleration and $70M for OWPs in the FY2004 Emergency Supplemental Appropriations Act, $2M Plus-up for for Ready Rm Mission/ Mission Reprogramming Unit, $4M Plus-up for USQ113, and $35M for OWPs via Congressional add. Funds have been budgeted in FY07 and FY08 for the WCS and OWP production/installation line shutdown.

ASN-130A Replacement: Funding for this upgrade was provided via a Cost Reduction Effectiveness Improvement Council (CREIC) initiative during the POM-02 process. The aging ASN-130A will be replaced with the ASN-172, with a combined inertial navigation/GPS system 2nd EGI. Reliability and maintainability will be improved.

Outer Wing Panel (OWP) replacement program includes ongoing fatigue life expenditure (FLE) analysis. The solution may range from an airframe change to improve FLE to replace the OWP to ensure the EA-6B availability through FY-2015. In FY02 received supplemental in the amount of $25M to procure up to 3 additional Outer Wing Panels. Also received $4.25M DERF funds for OWP production line start up and tooling.

Mission Reprogramming Unit (MRU): This program resulted from an Affordable Readiness Initiative (ARI) that provides an upgrade to the existing memory input/output capability of the mission computer. Tape driven devices which are no longer being produced are being replaced with PCMCIA cards that are more reliable and maintainable. Funding for this upgrade resided in OSIP 1-01 during the PB01 process.

EA-6B Power PC initiative: This initiative proposes to add a COTS PowerPC processor to the AYK-14, XN-11/CP-2357. This special EA-6B AYK-14 chassis has already been upgraded to support COTS SRAs on its VME backplane. Funding is required for COTS hardware (Processor SRA) and integration kit (Memory Bridge SRA), addition of a few laboratory support tools, development testing, and modification to technical publication source data and maintenance plans.

EA-6B (MK-GRU-EA7) Ejection seat initiative: The GRUAE7 ejection seat, used in the EA-6B aircraft uses standard British hardware to build the GRUAE7 ejection seat. This hardware is replaced 100% during depot rework and 224 day "O" level maintenance. Aircrews are reporting increased fatigue resulting from extended time in the cockpit due physical positioning of personnel. Materials used during seat over haul could be of an improved quality. The ejection seat sequencing system is an electro- mechanical design which will be improved by changing to a digital time delay system. These two action will improve the aircrew endurance and survivability.

EA-6B Digital Flight Control System (DFCS): The DFCS program comprises the adaption of existing Digital Flight Control Computer (DFCC) and Digital Control Panel (DCP) to replace the existing Air Navigational Computer (ANC) and control panel presently fitted to the EA-6B aircraft. This replacement DFCS will be configured to ensure only the minimum number of aircraft changes are required. Intended to eliminate the problem of spurious inputs to Flight Control Systems.

Structural Data Recording System (SDRS) and G-Meter Replacement: The SDRS provides a more accurate recording of the g-force hits on the aircraft. The air crew is reporting disparities between cockpit G-meter and SDRS up to 0.7g difference between the read outs. The cockpit G-meter and the g forces recorded by the SDRS. The current cockpit G-meter is an analogy design meter and the replacement G-meter is a digital design. Data provided to the cockpit G-meter will be taken from the motion pick-up transducers as does the SDRS. As a secondary mode, the replacement G-meter has the capability to function independently of the motion pick-up transducer input. Installs are scheduled as part of ICAP II Block 3 installations.

EA-6B Flight Control Surface Upgrades: Upgrade of current EA-6B primary flight control surfaces, which include Inboard Slats, Rudders, Outboard Flaps and Horizontal Stablizers, due to material condition. Utilizing Phosphoric Acid Anodized (PAA) Honeycomb Core technology will improve operational availaibilty of flight control surfaces by 60%. Bond durability between the face and core sheets and corrosion resistance is significantly improved and reduces total ownership costs by 30%.

EA-6B Hydraulic System Upgrades: Hydraulic System Improvements, based on current technology, are available to improve legacy components on the EA-6B. Upgrades to the hydraulic actuators to include new technology seals to prevent leakage, new barrels and endcaps to improve operational reliability and reduce FLE on components. FLE can be improved by as much as 65% with this technology. Hydraulic reservoir upgrade to include, replacement of endcap to reduce safety impact, and improve operational availability.

EA-6B Aircraft Wiring Upgrade: The wiring originally installed during OEM production of the EA-6B aircraft and Weapons Replaceable Assemblies (WRAs) has continued to degrade over time. Much of the wiring originally installed conformed to specifications that have since been superceded. Post production engineering analyses have also been conducted that indicate some of the wiring originally installed has potential for severe degradation, which results in increased possiblity of electrical arcing and fire hazard.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:
Major milestones include the completion of SDRS and 9th Squadron Support Equipment.

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&EN																						
Procurement																						
Installation Kits	3,101	36.3																				
SDRS Kit	122	1.7																				
ASN-130A Replacement (2nd EG	80	0.9	33	0.2																		
Wing Center Section (WCS)	98	288.8	15	44.4	9	23.3																
Outer Wing Panel (OWP)	20	85.2	23	69.9																		
DFCS		0.4			24	0.5	41	0.8	23	0.5												
AN/USQ-113	155	12.1	13	5.0																		
Flight Control Surfaces Upgrade							54	4.0	20	1.5												
Hydraulic Systems Upgrade							62	10.6	12	2.1												
Aircraft Wiring Upgrade							39	1.5	39	1.5												
Mission Rehearsal System (MRS)																						
Wing Center Section Accelleration				2.7																		
Installation Kits N/R		15.1																				
DFCS		4.4	2	3.4	1	2.3		1.2		0.2												
AN/USQ-113		6.4		0.5																		
Flight Control Surfaces Upgrade								0.1														
Hydraulic Systems Upgrade								0.1														
Aircraft Wiring Upgrade								0.1														
Mission Rehearsal System (MRS)		2.1																				
On-Board Oxygen Gene (OBOG)	2	1.0																				
Wing Center Section		0.2																				
Installation Equipment	1,949	88.5		0.8																		
Mission Reprogramming Unit		11.2																				
Ejection Seat		0.1		0.1		0.1		0.1														
Power PC Integration		1.9		0.6		0.5		0.5		0.5												
ASN-130A Replacement (2ND EGI)		1.7		2.3		1.8																
DFCS						3.0		6.8		2.5												
Installation Equipment N/R		17.9		*																		
Ready Rm Mission Rehearsal				1.5																		
DFCS		4.4		5.8		8.5		0.2		0.2												
OWP						0.3		0.4		0.3												
Engineering Change Orders		1.6		0.5		0.5		0.6		0.4												
Data		11.8		0.5		0.4		0.6		0.6												
Training Equipment	15	3.0		0.2		0.1		0.1														
Support Equipment		15.1																				
ILS		2.0		0.6		0.3		0.2		0.3												
Other Support		55.2		11.4		2.7		2.6		5.8												
Interim Contractor Support																						
Installation Cost	1007	86.1	41	21.2	57	14.5	198	13.7	121	7.2												
Total Procurement		**755.0**		**171.6**		**58.6**		**43.8**		**23.2**												

* Totals less than $50K.

1. Totals may not add due to rounding.
2. ASN-130A Installation Kit quantities (121) do not include VEP aircraft quantity (1) obtained via FY00 Congressional Add.
3. In FY 2002, received $4.25M Defense Emergency Response Funding (DERF) for OWP, $25M in supplemental funds for OWP, and $35M for WCS.
4. Other support in FY 2007 includes Wing Center Section (WCS) Production shutdown costs
5. Other support in FY 2008 includes Outer Wing Panel (OWP) Production shutdown costs.
6. In FY2004, received $70M Emergency Supplemental funds for OWP, and $15M for WCS.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **EA-6B Series Modifications** MODIFICATION TITLE: Wing Center Section (OSIP 32-85)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Contractor Turn-key for FY97 Procurement. Commercial & Organic installs FY98 and out.**

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 24 Months

CONTRACT DATES: FY 2004: Nov-03 FY 2005: Nov-04 FY 2006: FY 2007:

DELIVERY DATE: FY 2004: Nov-05 FY 2005: Nov-06 FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		**TOTAL**	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	**Qty**	**$**
FY 2003 & PY(98) kits	62	51.9	21	20.4	15	15.0																
FY 2004 (15) kits					1	0.8	14	14.1														
FY 2005 (9) kits									9	9.6												
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010() kits																						
FY 2011() kits																						
To Complete () kits																						
TOTAL	**62**	**51.9**	**21**	**20.4**	**16**	**15.7**	**14**	**14.1**	**9**	**9.6**												

1. Totals may not add due to rounding
2. FY03 Includes WCS installed for VEP aircraft making 122 aircraft.
3. As result of the WCS acceleration efforts production leadtime was reduced from 28 months to 24 months

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	62	4	6	6	5	4	4	4	4	4	3	4	3	1	2	3	3				
Out	45	4	4	5	5	4	6	6	5	4	4	4	4	4	3	4	3				

*FY00 installation costs included in FY97 & prior turn-key contracts.

	FY 2009				FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	1	2	3	4	Complete	TOTAL
In														
Out														

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **EA-6B Series Modifications** MODIFICATION TITLE: SDRS KITS (OSIP 32-85)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Contractor Mod Team/Organic**

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 5 Months

CONTRACT DATES: FY 2004: N/A FY 2005: N/A FY 2006: N/A FY 2007: N/A

DELIVERY DATE: FY 2004: N/A FY 2005: N/A FY 2006: N/A FY 2007: N/A

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		**TOTAL**	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	**Qty**	**$**
FY 2003 & PY(122) kits	122	2.0																				
FY 2004 ( ) kits																						
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
To Complete ( ) kits																						
TOTAL	**122**	**2.0**																				

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	122																				
Out	122																				

	FY 2009				FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	1	2	3	4	Complete	TOTAL
In														
Out														

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **EA-6B Series Modification** MODIFICATION TITLE: ASN-130A Replacement (2nd EGI)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Organic Installations**

ADMINISTRATIVE LEADTIME: 1 Month PRODUCTION LEADTIME: 3 Months

CONTRACT DATES: FY 2004: Nov-03 FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: Feb-04 FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		To Complete		**TOTAL**	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	**Qty**	**$**
FY 2003 & PY(80) kits	77	0.4	3	0.1																
FY 2004 (33) kits			17	0.6	11	0.5	5	0.3												
FY 2005 () kits																				
FY 2006() kits																				
FY 2007 () kits																				
FY 2008 () kits																				
FY 2009 () kits																				
FY 2010 () kits																				
FY 2011 () kits																				
To Complete ( ) kits																				
TOTAL	**77**	**0.4**	**20**	**0.7**	**11**	**0.5**	**5**	**0.3**												

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	77	5	5	5	5	1	3	4	3	1	2	2									
Out	72	5	5	5	5	5		1	3	3	3	2	2	2							

	FY 2009				FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	1	2	3	4	Complete	TOTAL
In														
Out														

* Indicates cost less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **EA-6B Series Modification** MODIFICATION TITLE: DFCS

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Organic Installations**

ADMINISTRATIVE LEADTIME: 2 Month PRODUCTION LEADTIME: 8 Months

CONTRACT DATES: FY 2004: FY 2005: Jun-05 FY 2006: Jan-06 FY 2007: Jan-07

DELIVERY DATE: FY 2004: FY 2005: Mar-06 FY 2006: Oct-06 FY 2007: Oct-07

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		**TOTAL**	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	**Qty**	**$**
FY 2003 & PY() kits																						
FY 2004 (2) kits			2	1.2																		
FY 2005 (25) kits					1	0.1	24	2.1														
FY 2006 (41) kits									41	3.8												
FY 2007 (23) kits																						
FY 2008 (10) kits																						
FY 2009 () kits																						
FY 2010 () kits																						
To Complete ( ) kits																						
TOTAL			**2**	**1.2**	**1**	**0.1**	**24**	**2.1**	**41**	**3.8**												

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In				1	1				1		4	10	10	10	10	10	11				
Out				1		1			1		2	10	10	12	10	10	10				

	FY 2009				FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	1	2	3	4	Complete	TOTAL
In														
Out														

* Indicates cost less than $50K

1. The (DFCS) Program quantity and schedule adjustments were the result of budget constraints. The original program called for 119 aircraft to have the current AFCS replaced with DFCS. However the independent cost estimate completed after the PB process determined that this plan exceeded the funding available. The DFCS program has since been de-scoped. 2. Two kits in FY04 are DT/Ground asset kits. FY05 is the validation kit.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **EA-6B Series Modification** MODIFICATION TITLE: Flight Control Surfaces Upgrade

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Organic Installations**

ADMINISTRATIVE LEADTIME: 1 Month PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2004: FY 2005: FY 2006: Oct-05 FY 2007: Oct-07

DELIVERY DATE: FY 2004: FY 2005: FY 2006: Apr-06 FY 2007: Apr-08

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		**TOTAL**	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	**Qty**	**$**
FY 2003 & PY() kits																						
FY 2004 () kits																						
FY 2005 () kits																						
FY 2006 (54) kits							54	0.1														
FY 2007 (20) kits									20	*												
FY 2008 (6) kits																						
FY 2009 () kits																						
FY 2010 () kits																						
To Complete (28) kits																						
TOTAL							**54**	**0.1**	**20**	*****												

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In												20	34			5	15				
Out												18	30	6		7	11				

	FY 2009				FY 2010				FY 2011				To	TOTAL
	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
In														
Out														

* Indicates cost less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **EA-6B Series Modification**

MODIFICATION TITLE: Hyraulic Systems Upgrade

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Organic Installations**

ADMINISTRATIVE LEADTIME: 1 Month

PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2004: FY 2005: FY 2006: Oct-05 FY 2007: Oct-06

DELIVERY DATE: FY 2004: FY 2005: FY 2006: Apr-06 FY 2007: Apr-07

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		**TOTAL**	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	**Qty**	**$**
FY 2003 & PY() kits																						
FY 2004 () kits																						
FY 2005 () kits																						
FY 2006 (62) kits							62	0.2														
FY 2007 (12) kits									12	*												
FY 2008 (3) kits																						
FY 2009 () kits																						
FY 2010 () kits																						
To Complete (31) kits																						
TOTAL							**62**	**0.2**	**12**	*												

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In												24	38			12					
Out												16	36	10		7	5				

	FY 2009				FY 2010				FY 2011				To	TOTAL
	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
In														
Out														

* Indicates cost less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **EA-6B Series Modification** MODIFICATION TITLE: Aircraft Wiring Upgrade

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Organic Installations**

ADMINISTRATIVE LEADTIME: 1 Month PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2004: FY 2005: FY 2006: Oct-05 FY 2007: Oct-06

DELIVERY DATE: FY 2004: FY 2005: FY 2006: Apr-06 FY 2007: Apr-07

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		**TOTAL**	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	**Qty**	**$**
FY 2003 & PY() kits																						
FY 2004 () kits																						
FY 2005 () kits																						
FY 2006 (39) kits							39	0.1														
FY 2007 (39) kits									39	0.1												
FY 2008 (20) kits																						
FY 2009 () kits																						
FY 2010 () kits																						
To Complete (10) kits																						
TOTAL							**39**	**0.1**	**39**	**0.1**												

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In												18	21			19	20				
Out												15	20	3		18	18				

	FY 2009				FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	1	2	3	4	Complete	TOTAL
In														
Out														

* Indicates cost less than $50K

Exhibit P-3a Individual Modification

MODIFICATION TITLE: **J52 Engines** **(OSIP 111-87)**

MODELS OF SYSTEMS AFFECTED: EA-6B Series Modification TYPE MODIFICATION: Reliability Upgrade

DESCRIPTION/JUSTIFICATION: J52 Engine Improvements: The J52 engine is a legacy gas turbine engine, which powers the EA-6B and has been in service since the 1960's. This initiative will capitalize on R&D efforts funded through the Engine Component Improvement Program (CIP) and OMN funded analysis of engine failure modes. Specific reliability discrepancy trends have been identified and appropriate Engineering Change Proposals (ECP) and Power Plant Changes (PPC) have been developed to address the risk of uncontained turbine blade failures and improve engine reliability and time on wing. The results include an improved Turbine Exhaust Case (TEC) that provides low pressure turbine (LPT) containment and other durability and reliability improvements designed to increase engine time on wing. 20 TEC kits purchased with FY02 funding will be on contract in June 2004. These kits will be delivered not later than 1Q FY06. Funding will also be used for the Power Trim Indicator system and engineering and logistics labor required to complete development of maintenance planning products across all 10 ILS elements. Efforts include the analysis of J52 data, maintenance plan, Level of repair analysis, reliability centered maintenance to establish preventive maintenance schedules, development of technical manuals, provisioning technical documentation, and logistics support tail for associated support equipment. Also includes the development of source data, and limits to revise engine build standards in order to meet J52 reliability goal of 760 hours time on wing. Received $6.524M of DERF funds in FY02.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Development of the Improved Turbine Exhaust Case (TEC) began in FY95 using engine CIP and contractor funds. Testing and ECP approval was completed in the first quarter of FY98 (OCT 97), followed by a production contract award. All ECPs are approved and Technical Directives (TD) are completed or in process. Incorporation of initial PPC 306 TEC kits is in process. Initial PPC 304 kits are on order and NAVICP is currently procuring attrition parts.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
Turbine Blade Containment Kit	218	25.5																				
Power Trim Indicator (PTI) Kit							32	0.1	38	0.1												
Installation Kits N/R		0.3						*														
Installation Equipment																						
Installation Equipment N/R		1.1																				
Engineering Change Orders																						
Data		0.2																				
Training Equipment																						
Support Equipment		1.8		0.3		*		*		*												
AXIAM Equipment		2.5																				
ILS		0.4		0.9																		
Other Support		7.0		3.5		0.3		0.1		0.1												
Installation Cost																						
Total Procurement		**38.8**		**4.6**		**0.3**		**0.3**		**0.3**												

Notes:
1. Totals may not add due to rounding
2. Funding provided within the FYDP reflects an approved Reduction in Total Ownership Cost (RTOC) initiative.
3. Installations will be performed concurrently with Standard Depot Level Maintenance (SDLM), Engine Overhauls and other O&M,N funded efforts.
4. * Totals less than 50k.
5. FY 2002 received $6.524M Defense Emergency Response Funding (DERF) for J52 and bought 32 TEC/Turbine blade containment kits.

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: **Block 89A Avionics (OSIP 42-93)**

MODELS OF SYSTEMS AFFECTED: EA-6 Series Modifications | TYPE MODIFICATION: Safety of Flight/ Reliability

DESCRIPTION/JUSTIFICATION:

This omnibus Operational and Safety Improvement Program covers EA-6B ICAP II Block 89A Avionics systems modifications to install required communications, navigation, and miniaturized technology improvements. The avionics common systems upgrade includes incorporation of: (1) AN/ARC-210 VHF/UHF radios having SINCGARS and HAVEQUICK modes for inter-operability with Air Force, ground, and NATO forces. (2) The Embedded GPS Inertial Navigation System (EGI) provides a closely coupled GPS-INS solution and replaces the ASN-50 AHRS which has very poor reliability. (3) Full integration of the Electronic Flight Instrumentation System (EFIS), Control Display Navigation Unit (CDNU), and Digital Signal Data Converter (DSDC), which were installed as part of AFC778-779. This OSIP provides for upgrade of the DSDC for use in Block 89A. The DSDC functions as an interface unit for the EFIS and is connected to the 1553 Navigation data bus to provide additional navigation data to the aircrew. (4) The AYK-14 computer will be upgraded with Very High Speed Integrated Circuit Technology (VHSIC) improving processing, memory, and throughput. The upgraded computer (CP-2357) will retain the outer form factor of the current computer and incorporate a new backplane that supports the new VHSIC processor Module and provides VME-bus expansion slots. Discrete and Serial Modules (DSM) replace the Serial Interface Module-A (SIM-A) cards. (5) Mission Planning System: The AN/TSQ-142 Mission Planner provides operational flight program loading, maps, EW libraries, jammer techniques, HARM data, and performs data reduction. Modifications to the AN/TSQ-142 are required to support the Block-89A upgrade, and to support transition of EA-6B MPS. (6) Misc. Avionics: Additional Engineering Change Proposals (ECP) and procurement of avionics, such as ARC-199 Radios, CIU/E, HARM, Dual EGI, and Night Vision capability in all aircraft. * Funding for the Night Vision Device upgrade was provided via an FY00 Congressional add and is comprised of the goggles themselves, engineering and integrations effort, display and lighting modifications, and various electrical/structural changes.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

The ARC-210 UHF/VHF radio is a common avionics system to be installed in all Navy aircraft, and has undergone OPEVAL on the F-18, UH-1, and other platforms. The EA-6B has been approved for installation. The EFIS system completed successful OPEVAL and was approved for full rate production and will require minimal upgrade FOT&E for the required interface and incorporation of EGI data. The EGI is common avionics with the F-18 EGI and has been extensively flight tested in that platform. The AYK-14 (XN-*) computer utilizes modules that are common avionics to Navy inventory, and a chassis similar to the current XN-4. The similarity and commonality of the upgraded AYK-14 required little additional qualification testing. DT began on the Block -89A system in FY-98, with an intensive integrated Test and Evaluation period. Testing of software, upgraded avionics, including some regression testing of existing functionality, and testing of the mission planning system are currently being conducted.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PROCUREMENT																						
Installation Kits	20	59.5																				
Block 82 to 89A Kit	44	43.6																				
Block 89 to 89A Kit	46	15.4																				
Installation Kits N/R	8	61.4																				
Installation Equipment	101	5.8		*																		
Block 82 to 89A Equip	6	14.8																				
Block 89 to 89A	30	2.0																				
ARC-210 Equip	50	5.6																				
AN/AYK-14	45	8.3																				
NVD Equip	122	12.6																				
CIU/Encoder	66	18.6																				
Installation Equipment N/R	2	8.2																				
Engineering Change Orders		0.5																				
Data		12.4																				
Training Equipment		13.4																				
Support Equipment		44.2																				
ILS		9.0		0.2		0.4		0.2		0.3												
Other Support		89.0		0.9		1.1		1.0		1.3												
Interim Contractor Support																						
Installation Cost	198	92.3	18	13.7	14	7.9	5	4.3														
Total Procurement		**516.7**		**14.8**		**9.4**		**5.5**		**1.6**												

Notes:

1. EGI and ARC-210 Equipment quantities are funded under the Common Avionics budget.
2. In FY00, total program includes $31.0M as a result of a Congressional plus-up for Night Vision Devices (NVD).
3. NVD funding reported in PB01 under Installation Kits and Installation Equipment was redirected to Installation Equipment and represents multiple NVD goggles per Install Kit.
4. Three (3) Kits were procured by the Navy Reserves in FY03.
5. * Totals less than 50k.
6. Totals may not add due to rounding.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **EA-6B Series Block 89A Modifications** MODIFICATION TITLE: Block 89A Avionics System Improvement (OSIP 42-93)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Commercial and Organic Installations**

ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2004: N/A FY 2005: N/A FY 2006: N/A FY 2007: N/A

DELIVERY DATE: FY 2004: N/A FY 2005: N/A FY 2006: N/A FY 2007: N/A

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2010		To Complete		**TOTAL**	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	**Qty**	**$**
FY 2003 & PY(113) kits	87	75.2	12	10.8	9	7.6	5	3.2														
FY 2004 () kits																						
FY 2005 () kits																						
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
To Complete ( ) kits																						
TOTAL	**87**	**75.2**	**12**	**10.8**	**9**	**7.6**	**5**	**3.2**														

Installation Schedule

	FY 2002 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	87	2	3	4	3		3	3	3	1	2		2								
Out	80		2	2	2	1	4	5	3	2	4	4		1	3						

	FY 2009				FY 2010				FY 2011				To Complete	TOTAL
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

1. A/C inducted four months ahead of delivery, as this is done concurrent with SDLM, and tear down and partial SDLM must be completed before kit installation.
2. Three (3) kits procured by Navy Reserve in FY03. Aircraft transferred to active Navy.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **EA-6B Series Modifications** MODIFICATION TITLE: Night Vision Devices (OSIP 42-93)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Organic**

ADMINISTRATIVE LEADTIME: PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2004: N/A FY 2005: N/A FY 2006: N/A FY 2007: N/A

DELIVERY DATE: FY 2004: N/A FY 2005: N/A FY 2006: N/A FY 2007: N/A

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		**TOTAL**	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	**Qty**	**$**
FY 2003 & PY(122) kits	111	1.9	6	0.2	5	0.2																
FY 2004 ( ) kits																						
FY 2005 ( ) kits																						
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011() kits																						
To Complete ( ) kits																						
TOTAL	**111**	**1.9**	**6**	**0.2**	**5**	**0.2**																

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	111	6				5															
Out	101	3	3	4	6				5												

	FY 2009				FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	1	2	3	4	Complete	TOTAL
In														
Out														

1. NVD installation costs are not budgeted on an annualized basis as the cost to procure and install kits were provided as part of an FY00 Congressional plus-up.

Exhibit P-3a — Individual Modification

MODIFICATION TITLE: **ICAP III (OSIP 01-01)**

MODELS OF SYSTEMS AFFECTED: EA-6 Series Modifications — TYPE MODIFICATION: Safety of Flight/ Reliability

DESCRIPTION/JUSTIFICATION:

This Operational and Safety Improvement Program covers the EA-6B Improved Capabilities III (ICAP III) systems modifications to install required radar and communications receiver, displays, and connectivity improvements. Additionally, this modification removes over 70 aging and unreliable Weapons Replaceable Assemblies (WRAs). Specifically, the modification program replaces the ALQ-99 receiver System with the LR-700/ ALQ-218 receiver system, replaces the TDY-43 display system with a new COTS based display system for the Pilot and three Electronic Countermeasures Officers (ECMOs), replaces the Recorder Reproducer Set (RRS) with a new Digital Recorder, incorporates the Multi-Mission Advanced Tactical Terminal (MATT) which provides reception of datalinks such as TIBS, incorporates the USQ-113 Communication Receiver/Jammer with the Onboard System, updates mission planning for ICAP III, and provides provisions for Link-16. The course of maturing ICAP III to full potential will consist of 4 Block upgrades to deliver approximately 15 months apart.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Following a Full and Open Competition, Milestone II approval was received, and an EMD RDT&E development contract was awarded to the Northrop Grumman Corporation in March 1998. Following a DT/OT test period, completion of an OA and an LRIP decision, an LRIP contract was awarded in FY03. Following completion of OPEVAL and a Milestone III decision, a full rate production contract will be awarded in FY05.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E		312.1		35.3		34.0		34.5														
PROCUREMENT																						
Installation Kits																						
ICAPIII	10	69.9			1	7.4	3	21.2														
Installation Kits N/R		0.07		1.5		0.9		8.9														
Installation Equipment						0.1																
Installation Equipment N/R						0.4		1.7														
Engineering Change Orde																						
Data		1.3				0.5		2.5														
Training Equipment	2	65.5		1.1		5.7		1.8														
Support Equipment		5.0		4.4		5.7		9.0														
ILS		0.3		0.1		2.8		3.6														
Other Support		1.8		4.0		1.4		1.0														
Interim Contractor Support																						
Installation Cost			10	10.8			1	2.6	3	8.3												
Total Procurement		**143.9**		**21.8**		**24.8**		**52.2**		**8.3**												

Notes:

1. In FY00, total program increases $29.9M as result of a Congressional Plus-up for Simulators for a trainer upgrade.
2. Installation costs include Repair Incident to Modification (RIM) efforts in FY06 and out.
3. Totals may not add due to rounding.
4. Total quantity of 35 does not include 2 kits procured/installed via E&MD program.
5. FY04 Installation Kit procurement and other support reduction of $67M at FMB direction.
6. FY05 includes Congressional Add of $6.3M for ICAP III Weapons Systems Trainer

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **EA-6B Series ICAP III Upgrade** MODIFICATION TITLE: ICAP III System Improvement (OSIP 01-01)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Commercial**

ADMINISTRATIVE LEADTIME: 5 Months PRODUCTION LEADTIME: * 12 Months

CONTRACT DATES: FY 2004: FY 2005: FY 2006: Jan-05 FY 2007: Oct-05

DELIVERY DATE: FY 2004: FY 2005: FY 2006: Jan-06 FY 2007: Oct-06

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003& Prior (10) kits			10	10.8																				
FY 2004 (0) kits																								
FY 2005 (1) kits							1	2.6																
FY 2006 (3) kits									3	8.3														
FY 2007 ( ) kits																								
FY 2008 ( ) kits																								
FY 2009 ( ) kits																								
FY 2010 ( ) kits																								
FY 2011 ( ) kits																								
To Complete (21) kits																								
TOTAL			**10**	**10.8**			**1**	**2.6**	**3**	**8.3**														

* Aircraft are inducted concurrent with other Depot work to maximize Primary Aircraft Inventory (PAI) levels and is not impacted despite delay in initial ICAP III kit deliveries.

** ICAP III Kit is delivered in three parts. Part 1 of the kit delivery is delivered 12 months after ARO. Also production rate for ICAP III kit was increased to maintain IOC schedule requirements.

*** MIDS and ICAP III are interconnected programs but have their own OSIPS. However, procurement quantities and install quantities will match because the goal is to have both MIDS and ICAP III work as part of a system. As a result, the installs will be done at the same time to ensure that the two are placed on a common aircraft.

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In				4	6							1		3							
Out						1	3	3	3					1		3					

	FY 2009				FY 2010				FY 2011				To Complete	TOTAL
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Note: Two (2) aircraft kits were developed and installed in EA-6B EMD RDT&E program. Total Inventory of 37 (35 of which is in production).

Exhibit P-3a — Individual Modification

MODIFICATION TITLE: **MIDS (LINK 16) (OSIP 05-03)**

MODELS OF SYSTEMS AFFECTED: EA-6 Series Modifications

TYPE MODIFICATION: Safety of Flight/ Reliability

DESCRIPTION/JUSTIFICATION:

This Operational and Safety Improvement Program covers integration of required flight systems and Link-16 into the EA-6B. These programs cover procurement and installation of (a) Government Off the Shelf (GOTS) Inter-cockpit Communications System (ICS), CXP (IFF), TACAN Modification, and modification of the of Pre-Planned Product Improvement (P3I) Ethernet processor into the already installed AN/AYK-14 XN-11 and (b) previously developed and approved for production MIDS Low Volume Terminal. These modifications will allow the EA-6B aircraft to fly with new FAA mandated requirements and to participate in the Link-16 network. Items within (a) above are required prerequisites for (b) installs. Training Systems, Publications, and Support Equipment will be procured.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

The MIDS LVT is a common DoD system. The Navy will procure an existing ICS system based on requirements and via a competitive contract. The AYK-14 XN-11 Ethernet modification is currently in development.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2009		FY 2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E		28.7		1.8		2.4																
PROCUREMENT																						
Installation Kits																						
MIDS A KITS	14	0.4	11	0.4	1	0.3	3	0.1														
MIDS B KITS	14	3.8	11	3.1	1	2.9	3	0.8														
Installation Kits N/R																						
Installation Equipment	14	2.0	11	1.8	1	2.7	3	1.0														
installation equipment N/R																						
Engineering Change Orders																						
Data		0.1		0.1		0.3		0.4														
Training Equipment		*		0.5		0.3		0.3		0.1												
Support Equipment		0.1		0.1		0.1		0.1		0.1												
ILS		*		0.2		0.1		0.2		0.1												
Other Support		1.3		2.3		4.3		4.7		0.9												
Interim Contractor Support																						
Installation Cost			10	**0.9**	11	**0.6**	1	**0.1**	3	**0.2**												
Total Procurement		**7.7**		**9.2**		**11.4**		**7.6**		**1.3**												

Notes:

1. Totals may not add due to rounding
2. * Totals less than 50K.
3. Total of 39 Kits include 4 which are used for labs and trainers and will not be operational aircraft.
4. A kits = provisions including cables, brackets, and interface devices. B kits = Link 16 black box.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **EA-6B Series** MODIFICATION TITLE: **MIDS (Provisions and Link 16) (OSIP 05-03)**

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **FIELD** **DEPOT INSTALL**

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2004: Dec-03 FY 2005: Dec-04 FY 2006: Dec-05 FY 2007:

DELIVERY DATE: FY 2004: Dec-04 FY 2005: Dec-05 FY 2006: Dec-06 FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		**TOTAL**	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	**Qty**	**$**
FY 2003 & PY(14) kits			10	0.9																		
FY 2004 (11) kits					11	0.6																
FY 2005 (1) kits							1	0.1														
FY 2006 (3) kits									3	0.2												
FY 2007 () kits																						
FY 2008 (0) kits																						
FY 2009 (0) kits																						
FY 2010 (0) kits																						
FY 2011 (0) kits																						
TO COMPLETE (10) KITS																						
TOTAL			**10**	**0.9**	**11**	**0.6**	**1**	**0.1**	**3**	**0.2**												

** Aircraft are inducted one month before kit delivery

NOTES

*** MIDS and ICAP III are interconnected programs but have their own OSIPS. However, procurement quantities and install quantities will match because the goal is to have both MIDS and ICAP III work as part of a system. As a result the installs will be done at the same time to ensure that the two are placed on a common aircraft.

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In				4	6			5	6			1	0				3	0	0	0	0
Out						1	3	3	3	2	3	3	3	0	1	0	0	0		0	0

	FY 2009				FY 2010				FY 2011				To Complete	TOTAL
	1	2	3	4	1	2	3	4	1	2	3	4		
In	0	0	0	0	0	0	0	0	0	0	0	0		
Out	0	0	0	0	0	0	0	0	0	0	0	0		

1. Total of 39 Kits include 4 which are used for labs and trainers and will not be operational aircraft.

Exhibit P-40, BUDGET ITEM JUSTIFICATION					DATE: **February 2005**								
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy/APN-5 Aircraft Modifications**					P-1 ITEM NOMENCLATURE **AV-8B Series Modifications**								
Program Element for Code B Items:					Other Related Program Elements								
	Prior Years	ID Code		FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
QUANTITY		A											
COST (In Millions)	413.4	A		64.0	25.9	34.9	20.6	18.1	25.5	17.4	17.5	84.1	721.4

This line item funds modifications to AV-8B aircraft. The AV-8B is a single engine, single crewmember aircraft capable of vertical/short take-off and landing (V/STOL) operations. The AV-8B meets the Marine Corps requirements for a light attack aircraft to provide responsive offensive air power that can operate at austere forward bases in direct support of ground forces. The overall goal of the modifications budgeted in FY 2006 is to continue incorporation of Operational and Safety Improvements to the aircraft; completion of power cable MIL-W-81381 wire with MIL-W-22759 wire; continued update of TAV-8B trainer aircraft to better align with operational aircraft; continued incorporation of OSCAR; completion of the aircraft arming unit with ZRF; and incorporation of AV-8B F402-RR-408 Engine safety and operational changes. ALE-47 is a Form-Fit-Enhanced Functionality Counter Measures Dispenser System replacement for the obsolete ALE-39 which includes an upgrade to the digital sequencers and dispenser magazines.

In FY05, a Congressional add of $5.1M is currently reflected in the APN-5 controls for OSIP 23-00 . A request to realign these funds to the RDT&E account has been submitted.

The AV-8B active inventory (31 May 2004) consists of 4 major configurations:
17 two-seat TAV-8B aircraft,
5 DAY Attack aircraft,
41 NIGHT Attack Aircraft, and
93 Night Attack/RADAR aircraft.

(TOA, $ in Millions)

OSIP No.	Description	Prior Years	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
1-91	Omnibus O&S Improvements	90.1	1.5	1.8								93.4
3-96	KAPTON Wire Replacement	34.1	1.3	1.0								36.4
25-99	TAV-8B Performance Upgrade	103.8	2.1	1.5								107.5
23-00	Litening II Pod	148.7	37.0	5.1								190.8
12-02	Open Systems Core Avionics Requirement & Precision Strike	34.7	9.7	11.3	28.5	9.2	8.6	8.0	4.5	1.2		115.7
06-03	Zero Retention Force	2.0	1.2									3.2
02-04	Engine Life Management Program		4.4	5.2	3.1	3.7	2.7	3.9	4.0	3.0	14.8	44.8
25-04	ALE-47		6.8									6.8
006-06	Readiness Management Plan				3.3	7.6	6.8	13.6	8.9	13.4	69.2	122.9
TOTAL		**413.4**	**64.0**	**25.9**	**34.9**	**20.6**	**18.1**	**25.5**	**17.4**	**17.5**	**84.0**	**721.4**

Note: Totals may not add due to rounding.

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: OMNIBUS Operational & Safety Improvements (OSIP 1-91)

MODELS OF SYSTEM AFFECTED: TAV-8B, AV-8B Day, AV-8B Night, AV-8B Night/Radar TYPE MODIFICATION: Safety

DESCRIPTION/JUSTIFICATION:

Each ECP description includes the AV-8B configuration affected by the change and, if applicable, when it was introduced into production.
ECP-217, Emergency Battery Backup provides electrical power to the landing gear in the event of a major power failure - TAV-8B, Day. **ECP-246**, Canopy Restraint incorporates an improved pyrotechnic device to provide separation to the pilot on ejection - TAV-8B. **ECP-248**, Power Lever Angle Unit (PLAU) provides critical in-flight engine control, is being relocated from the engine bay to the cockpit to reduce the failure rate - TAV-8B, Day, Night, and FY99 & prior Radar. **ECP-251**, Nose Wheel Steering (NWS), a Safety change, provides improved pilot control over nose wheel steering responsiveness for critical landing conditions - TAV-8B, Night, FY96 & prior Radar. **ECP-254**, Inlet Guide Vane Controller (IGVC), a Safety change, provides improved -408 engine (via **RR-ECP-3759**) responsiveness during critical maneuvers - TAV-8B, Night, FY96 & prior Radar. **ECP-255R1**, Digital Flap Controller (DFC), a Safety change, provides improved flap control range and failure response during critical operations - TAV-8B, Day, Night, FY97 & prior Radar. **ECP-256**, Jet Pipe Temperature (JPT), a Safety change, eliminates the erroneous engine temperature returns - TAV-8B, Night, and FY96 & prior Radar. **ECP-257**, Digital Electronic Controller Unit (DECU), a Safety Change provides an improved power supply that corrects power interruptions during critical maneuvers - TAV-8B, Night, and FY96 & prior Radar. **ECP-269R1**, Frame 12, incorporates high vibration structural modifications to absorb increased vibrations which cause fatigue cracks - TAV-8B, Night & Radar. **ECP-271**, An improved mounting bracket for the 100% LERX structure reduces maintenance problems and improves readiness – Night, FY96 & prior Radar. **ECP-278**, installs more durable cables for the Radar Warning Radar system - Night, Radar. **ECP-300** Landing Gear Control replaces the striker pad inside the landing gear control hnadle.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

NWS flight test completed Feb 98. NWS & IGVC V&V completed third quarter FY-98. DFC and JPT V&V completed second quarter FY-98. DECU V&V completed first quarter FY-98 and incorporation initiated. Initial design/V&V of ECP-217 was completed in 2nd quarter FY-90 and a replacement battery was identified in 3rd quarter FY-97 to allow final installations. ECP-271 design/V&V was completed 3rd quarter FY-99. Installation reinitiated to complete modification program. ECP-278 design completed in 2nd quarter FY-99. L660 GTS/APU design was completed 2nd quarter FY-97 and rework initiated in 3rd quarter FY-97. L580 GTS/APU modification rework was completed in 4th quarter FY-97. GEC-11 modification was completed 4th quarter FY-97.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
ECP-217 (Emerg Battery) Kit	67	1.2																				
ECP-246 (TAV Canopy Restraint) Kit	34	0.7																				
ECP-248 (PLAU Resolver) Kit	54	2.8																				
ECP-251 (NWS) Kit	94	3.2																				
ECP-254 (IGVC) Kit	92	0.2																				
ECP-255R1 (DFC) Kit	141	0.3																				
ECP-256 (JPT) Kit	192	0.1																				
ECP-257 (DECU) Kit	99	0.0																				
ECP-269R1 (Frame 12) Kit	60	0.7																				
ECP-271 (100%LERX) Kit	53	0.2																				
ECP-278 (RWR Cable) Kit	136	0.8																				
ECP-300 Landing Gear Control Handle	184	0.8																				
C1.0 DSM Modules Kit	154	1.2																				
GEC-11 (CEDE Unit) Kit	181	0.1																				
GEC-002 (HPHA Unit) Kit	43	2.8																				
L580 (GTS/APU Duct) Kit		0.0																				
L660 (GTS/APU Protect Unit) Kit	329	0.9																				
PRIOR YEARS	528	8.3																				
Installation Kits N/R		7.8																				
Installation Equipment																						
ECP-248 (PLAU) Equip	54	0.1																				
ECP-255R1 (DFC) Equip	161	5.4																				
ECP-254/RR-3759 (IGVC) Equip	125	17.1																				
ECP-296 (ALR-67 Antennas)	178	0.8																				
Installation Equipment N/R																						
Engineering Change Orders																						
Data		2.0																				
Training Equipment		7.8																				
Support Equipment		2.3																				
ILS		0.3																				
Other Support		10.8		0.6		0.5																
Interim Contractor Support																						
Installation Cost		11.2		0.9		1.2																
TOTAL PROCUREMENT		**90.1**		**1.5**		**1.8**																

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **TAV-8B, AV-8B Day, AV-8B Night, AV-8B Night/Radar** MODIFICATION TITLE: Operational & Safety Improvement Modifications (01-91)

INSTALLATION INFORMATION: **This reflects multiple ECP installations begun in FY-94. Quantities will not match Kit Procurement line due to "O" Level Installs, Contractor Warranty Kits (ECP-271 & ECP-269R1) & piece part attrition upgrades.**

METHOD OF IMPLEMENTATION: **Installation will be accomplished by Naval Aviation Depot drive in modification.**

ADMINISTRATIVE LEADTIME: Months PRODUCTION LEADTIME: It varies with each ECP Months

CONTRACT DATES: FY 2004 Multiple Multiple FY2005 Multiple FY 2006 Multiple FY 2007 Multiple

DELIVERY DATE: FY 2004 Multiple Multiple FY2005 Multiple FY 2006 Multiple FY 2007 Multiple

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (1417) kits	**1278**	**11.241**	**88**	**0.916**	**51**	**1.221**																
FY 2004 () kits																						
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( )kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	1278	11.2	88	0.9	51	1.2																

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	1278	14	25	24	25	13	13	13	12																
Out	1278	14	25	24	25	13	13	13	12																

	FY 2010				FY 2011				To	Total
	1	2	3	4	1	2	3	4	Complete	
In										
Out										

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: KAPTON Wire Replacement (OSIP 3-96)

MODELS OF SYSTEM AFFECTED: TAV-8B TYPE MODIFICATION: Safety

DESCRIPTION/JUSTIFICATION:

The Kapton Wiring Replacement (ECP-277) S,R&M modification is required to replace the MIL-W-81381 (KAPTON) wiring with MIL-W-22759 (TEFZEL) wiring in TAV-8B aircraft delivered prior to September 1989. TAV-8B's with KAPTON (MIL- W-81381) insulated wire suffer from high failure rate due to frequent incidents of chafing resulting in wire fires. The KAPTON (MIL-W-81381) wired airplanes also require frequent and costly maintenance actions to continue flying. Replacement of this wiring is expected to improve aircraft readiness. This modification was introduced in production in FY 1989 TAV-8B aircraft cum 16 & subsequent which deleted the KAPTON (MIL-W-81341) insulated wiring and replaced it with irradiated TEFZEL wiring which is much more resistant to chafe and fire. This modification will be retrofitted in 11 of the 13 TAV-8B aircraft (cum 15 & below) currently in the inventory.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

This modification was designed and incorporated in all production baseline aircraft delivered after September 1989. AFP not applicable. An installation validation commenced July 2000 and completed Aug 2001.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
ECP 277 (Kapton Wire) Kit	12	16.3																				
Installation Kits N/R		2.2																				
Installation Equipment																						
ECP 277 (Kapton Wire) Equip																						
Installation Equipment N/R		0.8																				
Engineering Change Orders																						
Data		1.0																				
Training Equipment																						
Support Equipment																						
ILS		*																				
Other Support		2.4		0.3																		
Interim Contractor Support																						
Installation Cost	8	11.4	1	0.9	1.0	1.0																
TOTAL PROCUREMENT		**34.1**		**1.3**		**1.0**																

Notes:

1. Asterisk indicates amount less than 50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED:

TAV-8B MODIFICATION TITLE: KAPTON Wire Replacement (OSIP 3-96)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **AFC installation will be accomplished by Naval Aviation Depot Drive-in Mod.**

ADMINISTRATIVE LEADTIME: 5 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2004 FY 2005 FY 2006 FY 2007

DELIVERY DATE: FY 2004 FY 2005 FY 2006 FY 2007

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (10) kits *	**8**	**11.4**	**1**	**0.9**	**1**	**1.0**																
FY 2004 ( ) kits																						
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) Kits																						
To Complete ( ) kits																						
TOTAL	8	11.4	1	0.9	1	1.04																

* Only 10 of the 12 kits bought will be installed. Aircraft cum numbers T-2 and T-6 cannot accept kits at this time due to configuation differences and are not included in the schedule.

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	8				1	1																			
Out	8				1	1																			

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: TAV-8B Performance Upgrade (OSIP 25-99)

MODELS OF SYSTEM AFFECTED: TAV-8B TYPE MODIFICATION: Upgrade

DESCRIPTION/JUSTIFICATION:

Update all AV-8B Trainer aircraft to better align with operational aircraft by incorporating Night Vision Goggle (NVG) lighting and the -408 engine. ECP-276 (NVG lighting) incorporation will allow for training of fleet pilots in NVG tactical flight operations during initial AV-8B flight training under the supervision of an instructor pilot. Currently, all NVG training is performed in the operational squadrons in single piloted aircraft after completion of initial pilot training. Earlier introduction of pilot NVG training/proficiency enhances the training environment. Improves configuration standardization with current Night/Radar NVG compatible components. ECP-276 will be installed on 17 aircraft currently in the inventory. The -408 engine is not thrust limited to the extent of the current -406A/B engines. ECP-275 (-408 Engine) provisions incorporation will allow expansion of VSTOL training time and increase the vertical landing performance safety margin by 2,000 pounds of thrust. Additionally, initial pilot training will be at the same performance levels experienced in the operational squadrons. Configuration consistency between Trainer and fleet Night/Radar aircraft will also be enhanced. Trainer aircraft cum T16 and above have -408 provisions incorporated and require engines only. Trainer aircraft cum T1 through T15 require both -408 engine provision kits and -408 engines. ECP-275 will be installed on 12 of the 13 T15 & below aircraft currently in the inventory. ECP-288 will field a modified Operational Flight Program to support the full -408A engine capabilities. ECP-291 installs the Night Attack Displey computer. ECP-305 installs the Throttle Grip and Stick. Due to the upgraded engine, Frame 12 stiffners will be installed on all TAV-8B aircraft concurrently with ECP-275.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Initial design of the NVG and -408A aircraft kits began in November 1998. Engine provisioning software development (ECP-288) was initiated in November 1998.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
ECP-275, -408 Engine Kit (T2-15)	12	4.2																				
IAFC-398, Fr.12 Kit (T2-15)	12	0.3																				
ECP-276, NVG Ltg. Kit (T2-24)	17	4.3																				
AFC-273, Kit (T2-24)	20	0.1																				
Installation Kits N/R		2.6																				
Installation Equipment																						
-408 Engines, ECP-275 (T2-15)	12	41.7																				
-408 Engines, ECP-275 (T16-24)	6	20.4																				
Engine Monitoring Unit, ECP-275	20	1.2																				
Stby. Altimeter, ECP-276 (T2-24)	36	0.5																				
Eng. Perf. Ind. (EPI), ECP-276 (T2	42	0.3																				
CDC/CDM, ECP-276 (T2-24)	51	1.0																				
ACNIP, ECP-276 (T2-24)	18	0.2																				
Fuel Qty Ind., ECP-276 (T2-24)	26	0.1																				
Airspeed Ind., ECP-276 (T2-24)	52	0.1																				
ECP-288 Mission Computer (T2-2	17	2.0																				
ECP-288 Warfare Mgmt Compute	17	3.7																				
ECP-291 NA Disp Computers (T 2	17	1.7																				
ECP-291 Throttle Grip & Stick(T2-24)																						
Installation Equipment N/R		0.2																				
Engineering Change Orders																						
Data		2.3																				
Training Equipment		0.2																				
Support Equipment		0.2																				
ILS																						
Other Support		10.2		0.9		0.5																
Interim Contractor Support																						
Installation Cost	35	6.5	12	1.2	7	1.0																
TOTAL PROCUREMENT		**103.8**		**2.1**		**1.5**																

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **TAV-8B** MODIFICATION TITLE: TAV-8B Performance Upgrade (OSIP 25-99)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **AFC installation will be accomplished by Naval Aviation Depot Drive-in Mod. ECP-275 will be installed concurrent with ECP-276 on aircraft cum T-15 & below.**

ADMINISTRATIVE LEADTIME: Varies for each ECP PRODUCTION LEADTIME: Varies for each ECP

CONTRACT DATES: FY 2004 _____ FY 2005 _____ FY 2006 _____ FY 2007 _____

DELIVERY DATE: FY 2004 _____ FY 2005 _____ FY 2006 _____ FY 2007 _____

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (61) kits*	35	6.5	12	1.2	7	1.0																
FY 2004 ( ) kits																						
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) Kits																						
FY 2011 ( ) Kits																						
To Complete ( ) kits																						
TOTAL	35	6.5	12	1.2	7	1.0																

* Only 54 of the 61 kits bought will be installed. Aircraft cum numbers T-2 and T-6 cannot accept kits at this time due to configuation differences and are not included in the schedule.

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	35			4	8	1	2	2	2																
Out	35			4	8	1	2	2	2																

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: LITENING II Pod (23-00)

MODELS OF SYSTEM AFFECTED: Night Attack & Radar/Night Attack TYPE MODIFICATION: Upgrade

DESCRIPTION/JUSTIFICATION:

The system will integrate and procure an external targeting pod that includes an Infrared (IR) and low-light TV targeting device capable of detecting, classifying, auto-tracking, and designating air-to-surface targets. The system will support first-pass autonomous delivery of conventional, precision guided, and accurate munitions to include Laser Maverick, GBU-12 and GBU-16. The system will provide targeting capabilities for the AV-8B fleet of Night Attack and Radar/Night attack aircraft through the end of it's service life. The addition of the LITENING II Targeting Pod gives the AV-8B (Night and Radar) the capability to perform precision targeting. Congressional adds of FY01 $80M, FY02 $24.7M , FY03 $28.0M and FY04 $37.0M to procure additional Litening II Precision Targeting Pods and integrate Litening into the AV-8B.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

The Targeting Pod is a non developmental item and has been in full production for several years. It was a winner of a targeting FLIR competition for the Air Force Reserve and Air National Guard and put in service on their F-16s 2nd Qtr FY-00. The design, integration, and testing of the Targeting Pod for the AV-8B was done on the Radar and /or Night Attack during 3rd Qtr FY-00. The integration will utilize: existing aircraft software, a weapons station adapter, and Targeting Pod interface software. PEO(A) had approved the acquisition strategy to acquire the pods through an existing USAF contract and provided a targeting pod capability to the Fleet in 1st Qtr FY-02. Additional full Litening integration to utilize targeting information from the Litening Pod in OC1.2 to create aircraft targeting solutions will be developed and tested under this OSIP and introduced under the H20 OFP program.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits, ECP Pod Provisions	138	0.3																				
POD Retrofit Kits																						
256 TO 512 AT Configuration	47	3.9																				
512 ER TO 512 AT Configuration			9	3.0																		
Installation Kits N/R		1.2																				
Installation Equipment, Pods																						
256	9	9.0																				
512 ER	47	61.1																				
512 AT	20	25.3	20	23.8																		
CFE WRA SETS		2.6																				
Installation Equipment N/R		6.7																				
Engineering Change Orders		0.1																				
Data		0.6		0.5																		
Training Equipment		3.6																				
Support Equipment	15	1.4	20	0.2																		
ILS		0.1																				
Other Support		32.9		9.5																		
Interim Contractor Support																						
Installation Cost																						
TOTAL PROCUREMENT		**148.7**		**37.0**		**5.1**																

Notes:

1. In FY05, a Congressional add of $5.1M is currently reflected in the APN-5 controls for OSIP 23-00 . A request to realign these funds to the RDT&E account has been submitted.

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: Open Systems Core Avionics Requirement (OSCAR) and Precision Strike (12-02)

MODELS OF SYSTEM AFFECTED: AV-8B Night, AV-8B Night/Radar TYPE MODIFICATION: Upgrade

DESCRIPTION/JUSTIFICATION:

The current AV-8B avionics do not have sufficient processor throughput and memory to support planned system upgrades. The OSCAR program will update the existing, obsolete avionics using Commercial Off the Shelf (COTS) open system architecture hardware that runs object-oriented design (OOD) and higher order language (HOL) software. This OSIP supports the procurement and retrofit installation of the Mission System Computer (MSC), also known as the Advanced Mission Computer (AMC) and Warfare Management Computer (WMC) being developed under the OSCAR program. This OSIP also supports the procurement and retrofit installation of MIL-STD-1760 wiring. Installation of the MIL-STD-1760B wiring to support new weapons will require the addition of wiring to the fuselage, additional circuit breaks, and a new relay panel. Modifications to the wing and pylon wiring are also part of this modification. Subsequent system upgrades based on the OSCAR system will be a continuing effort to integrate precision weapons suitable for delivery from the Harrier platform, as well as the internal and pod mounted systems necessary to effect guidance and designation are essential to the continued relevance of the AV-8B to the war fighter. ECP-289 ECCM Mod Kit will be installed concurrent with OSCAR to provide the full integration of the Havequick/SINCGARS capability.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

This system upgrade (ECP 270R2, ECP 285) is the production incorporation of the MSC, WMC and software being developed under the OSCAR program. The OSCAR program involves development, integration and operational test of the new MSC, WMC, and Operational Flight Program software that will use the MK-83 Joint Direct Attack Munitions on the AV-8B as well as full integration of Havequick/SINCGARS. LRIP I decision was approved Feb 02. DT completed 4th quarter FY02. LRIP II decision was approved Apr 03. OPEVAL for OSCAR completed Mar 04 and the final report was received Jul 04. Initial operating capability is scheduled for Mar 05. OSCAR was approved MSIII/Full rate production 16 AUG 04.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E ELEMENT# 0604264N																						
PROCUREMENT																						
Installation Kits																						
MIL-STD-1760 Wiring Kits	10	1.9	7	2.1	15	3.3	24	5.4	18	4.1	14	3.3	10	2.4								
Installation Kits N/R																						
Installation Equipment																						
OSCAR Computers	102	18.3	24	4.3	24	4.7	108	18.1														
Installation Equipment N/R		3.1																				
Engineering Change Orders																						
Data		1.2		0.2		0.1																
Training Equipment	4	6.2	1	0.9		0.5		1.2		0.1												
Support Equipment		0.6		0.3																		
ILS						0.2		0.2		0.4		0.4		0.4		0.3		0.1				
Other Support		3.6		1.9		0.7		1.1		0.9		1.0		1.2		1.2		0.6				
Interim Contractor Support																						
Installation Cost					40	1.9	37	2.5	45	3.8												
TOTAL PROCUREMENT		**34.7**		**9.7**		**11.3**		**28.5**		**9.2**		**4.7**		**4.0**		**1.5**		**0.6**				

Notes: ECP-289 ECCM Mod Kits will be installed concurrent with OSCAR and installation costs will be incurred under OSIP 1202 Open Systems Core Avionics Requirement & Precision Strike.

An additional MIL-STD-1760 kit is being procured in FY04 for installation in the AV-8B Maintenance Trainer.

The cost of the FY04 OSCAR computers is $400K lower due to an additional 18 units being purchased by Spain and Italy on the same contract.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED:

AV-8B Night, AV-8B Night/Radar MODIFICATION TITLE: Open Systems Core Avionics Requirement (OSCAR) and Precision Strike (12-02)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **AFC installation will be accomplished by Naval Aviation Depot Drive-in Mod.**

ADMINISTRATIVE LEADTIME: 9 Months PRODUCTION LEADTIME: 16 Months

CONTRACT DATES: FY 2004 09/04 FY 2005 01/05 FY 2006 01/06 FY 2007 01/07

DELIVERY DATE: FY 2004 11/05 FY 2005 05/06 FY 2006 05/07 FY 2007 05/08

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (142) kits					**40**	**1.9**	**27**	**0.8**	**26**	**0.5**												
FY 2004 (7) kits							**7**	**1.2**														
FY 2005 (15) kits							**3**	**0.5**	**12**	**2.1**												
FY 2006 (24) kits									**7**	**1.2**												
FY 2007 (18)kits																						
FY 2008 (14) kits																						
FY 2009 (10) kits																						
FY 2010 (0) kits																						
FY 2011 (0) kits																						
To Complete (0) kits																						
TOTAL					40	1.9	37	2.5	45	3.8												

FY02 buys of ECP-289 ECCM mod kits were procured in OSIP 2392, installation will be concurrent with OSCAR

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In							10	15	15	10	9	9	9	10	11	12	12				
Out							10	15	15	10	9	9	9	10	11	12	12				

	FY 2009				FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	1	2	3	4	Complete	TOTAL
In														
Out														

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: Zero Retention Force (06-03)

MODELS OF SYSTEM AFFECTED: All T/AV-8B Aircraft (TAV-8B, AV-8B Night, AV-8B Radar). TYPE MODIFICATION: Safety

DESCRIPTION/JUSTIFICATION:

The purpose of the arming unit is to control the retention or release of an arming wire attached to the weapon. The ZRF enables reliability of flight selection of firing and weapon mode operations. The current BRU-36 arming unit (AU) has a history of problems and is not up to the standards of the AU's used on newer airframes. The Zero Retention Force Solenoid will be interchangeable with the SA-122 on all AV-8B models to provide reliable and dependable operation for in-flight selectability safe ordinance jettison.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Developmental Test complete Mar 03.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E ELEMENT# 0604214N																						
PROCUREMENT																						
Installation Kits																						
Installation Kits N/R																						
Installation Equipment	65	2.0	65	1.2																		
Installation Equipment N/R																						
Engineering Change Orders																						
Data																						
Training Equipment																						
Support Equipment																						
ILS																						
Other Support																						
Interim Contractor Support																						
Installation Cost																						
TOTAL PROCUREMENT		**2.0**		**1.2**																		

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: Engine Life Management Program (OSIP 02-04)

MODELS OF SYSTEMS AFFECTED: F402-RR-408 | TYPE MODIFICATION: Safety

DESCRIPTION/JUSTIFICATION:

The AV-8B is a single engine aircraft with unique capabilities. The VSTOL environment is very unforgiving and allows no tolerance for engine problems. In the past, the Pegasus F402 has suffered from a less than optimal safety and reliability record demonstrating a 12.11 mishap (Class A) per 100,000 flight hours compared to a historical average rate of less than 2.0 over the rest of the Navy and Marine Corps in recent years. The Engine Life Management Program is a comprehensive program to increase safety of flight and operational readiness of the AV-8B F402-RR-408 Engine. Funding provided is to incorporate Engineering Change Proposals to increase safety of flight and operational readiness of the F402-RR-408 Engine.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

The Engine Life Management Program was developed in October 2000. OSIP 02-04 supports the Harrier AV-8B Engine Life Management Program (ELMP) through APN funding. Power Plant changes are required throughout the aircraft service life as the aircraft ages and operationally revealed deficiencies are discovered, researched and solutions engineered. The Component Improvement Program (CIP) which is RDT&E funded provides for the developing and demonstrating of the engineered solutions to these deficiencies and through the Engineering Change Proposal (ECP) process the Power Plant changes are initiated. The power plant program procures the necessary kits, installation, non-recurring engineering and technical data. The kits provided are for engine and propulsion related hardware to support the AV-8B F402 engine such as nozzle guide vanes (NGV), Pilot Lever Angle Units (PLAU), Fuel Control Units, Generator Turbine Starters (GTS) and accessory components, rotors and vanes for compressor sections, power turbines, combustion sections, exhaust ducts, engine monitor systems, and blade and vane coatings and foils to improve Foreign Object Damage (FOD) tolerance. The purpose of the program is to increase safety of flight and operational readiness of the AV-8B F402-RR-408 Engine. The ELMP is comprised of several Engineering Project Description investigations and a series of bi-annual Accelerated Simulated Mission Endurance Tests (ASMET). The Engineering Project Description (EPD) investigations and ASMET tests provide data points for existing Fleet problems and predict future engineering issues with the F402-RR-408. The EPD investigations are conducted annually and an ASMET test began 4Q/04. Engineering Change Proposals resulting from Engineering Investigations and ASMET teardown results will be researched and their development formalized under the development program and incorporated into the F402-RR-408 via OSIP 02-04.

F402-RR-408 Accessories

ECP 3868 Improved Gearbox Lubrication - Replaces existing short transfer bobins, rework of gear carrier and improved gear lubrication to reduce gear wear and extend the life of the component.
ECP 3718 Revised Front Nozzle Trimmers - Revision to improve durability and increase component life.
ECP 3717 R1 Accessory Gearbox Starter Shaft Bearing - Intorduces a revised clearance to minimize occurrences of rub between the cage and the bearing housing.
ECP TBD Drive end Improvements
ECP TBD Solenoid Mounting Plate
ECP-3772R1 Cabin Air Pipe Gasket in Asbestos Free Material - Resubmitted as a class 1 change per DCMDI, to remove asbestos from the engine wherever technically possible.

F402-RR-408 Combustion

ECP-3705R1 Bottom Heat Sheild - Allows easier romoval and access to the water injection system without removing the NO. 4 oil drain pipe.
ECP-3826 Exhaust Duct Manifold - Redesign of the Exhaust Duct due to new manufacture and part attrition.
ECP-3743 Improved N0. 4 Bearing Housing - Introduces new shoulder pins to provide alignment of components and prevent tank cracking due to misassembly.
ECP-3739 HPT1 NGV Outer Locating Ring Hard Coat - Introduces a new coating to extend the life of the component.
ECP 3745 Combustion Chamber Improvements - Introduces multiple changes to minimize or prevent the current problems.
ECP-3767 JPT Thermocouple harness - Provides revision to JPT harness with revised attachment parts to alleviate clearance problems.
ECP-3738 Revised Inner HPT 1 NGV Support Cone - Revision to reduce instances of fretting and cracking.
ECP-3786R1 No. 4 Bearing Oil Tank Drain Asbestos removal - Introduces non-asbestos material and adds a dowl pin clearance hole to suite future ECP 3743.

F402-RR-408 Compressor

ECP-3647 Improved Alignment 8th Stage Bulkhead - Revised to alleviate design deficiency.
ECP-3733 Corrosion Protection for HPC Shaft - Introduces corrosion protection to the curvic coupling to eliminate corrosion attack and resultant reduction in component life.
ECP TBD - Improvements to LP and HP Pulse Probe Drives
ECP 3834 LPC 1 Vane Platform Inner Retention - Redesign of the Vane Platform to minimize or prevent current problems.
ECP 3848 HPC Casting Bridge Pipe with Solid Spacer - Introduces new spacers with a material change to prevent possible "blow out" of resin.
ECP 3754 Clamps on HPC8 bleed air pipes - Revised clamps to alleviate assembly problems and improve the design.
ECP-3812 Alt Grease in LP and HP Nozzle Raceways - Revised to improve component life and part attrition.
ECP-3865 Replacement Vibration Transducer - Revision due to obsolescence, introduces a new part number.
ECP-3864 Replacement P3 Transducer - Revision due to obsolescence, introduces a new part number.
ECP-3854 LPC 3 Vane Sealing Strip - Revised to prevent current material problem and part attrition.
ECP-3852 LPC2 Vane Platform wear - Revised to improve durability and increase component life.
ECP-3873 HP/LP Pulse Probe Phonic Wheel - Revision to improve data accuracy, improved durability and design.

F402-RR-408 EVICS

ECP 3880 EVICS HMU - Roll up of various minor changes to alleviate design deficiency and assembly problems.
ECP 3863 Revision to Encapsulated Electrical Harness - Revision to alleviate assembly problems.
ECP 3877 EVICS HMU Introduction of Restrictor - Introduces a repair for dithering (fluctuation) enhancing the reliability.

F402-RR-408 Forigen Object Damage

ECP-3855 Damping Foil - Revision to improve FOD Tolerance and increase longevity of LPC1 Vanes.
ECP-3843 Sand Tolerant NGV - Revised NGVs to improve durability and increase component life.
ECP TBD LPC1R Root Cracking
ECP TBD LPC FOD Tolerance
ECP TBD LPC1 Root Cracking LSP
ECP 3806 Hot Nozzle Cracking- Redesign of the hot nozzles to minimize or prevent the current problem of crackin and part attrition
ECP TBD Improved Oil Seal for Break Contamination
ECP TBD Turbine Coatings

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: Engine Life Management Program (OSIP 02-04)

MODELS OF SYSTEMS AFFECTED: F402-RR-408 | TYPE MODIFICATION: Safety

F402-RR-408 Fuel Control

ECP-248 R1 Pilot's Lever Angle Unit (PLAU) - Design changes to rel9ocate the PLAU resolver from the engine to the cockpit.
ECP 3646 FMU HP Pump - Revised to alleviate design deficiency.
ECP 3578 Improved Clamping FMU SOV actuating lever - Revised clamping actuator to alleviate design deficiency.
ECP 3586 Incipient Blockage Indicator
ECP TBD PDR Assembly Redesign - Redesign to alleviate design deficiency.
ECP 3833 DECU Alternate Source Fault Code
ECP 3648 PLAU Lever mod - Revised to allieviate design deficiency.
ECP TBD DCU Redesign
ECP-3606 Change of Material for Bolts - Revised to improve durability and design deficiency.
ECP-3573 Deletion of Bolts, Spacers and Asbestos Gasket - Revision to remove identified parts to alleviate assembly problems.

F402-RR-408 Gas Turbine Starter

ECP 3690 Improved clipping of GTS leads - Revised to alleviate design deficiency.
ECP-TBD GTS PWR TURBINE/COMPRESSOR RGV/Compressor Turbine - Revision due to obsolescence, introduces a new part numbers.
ECP 589 GTS Chip Detector - New Chip Detector for early detection of potential damaging particles within the GTS.
ECP TBD GTS Improvements
ECP TBD GTS Event Counter
ECP TBD Event Counter
ECP TBD Drive End Improvements
ECP TBD Bearings
ECP TBD Solenoid Mounting Plate
ECP TBD Turbine Coatings
ECP TBD GTS Bearings
ECP-951 Introduction of new exhaust duct assembly (APU) - Revised to alleviate design deficiency to prevent further crack propagation.

Exhibit P-3a — Individual Modification

MODIFICATION TITLE: Engine Life Management Program (OSIP 02-04)

MODELS OF SYSTEMS AFFECTED: F402-RR-408 — TYPE MODIFICATION: Safety

FINANCIAL PLAN: (TOA, $ in Millions)	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E				2.5		6.0		8.5		4.5												
PROCUREMENT																						
Installation Kits																						
F402-RR-408 Accessories																						
ECP 3868 Improved Gearbox Lubrication					1	*	48	0.2	48	0.2												
ECP 3718 Revised Front Nozzle Trimmers																						
ECP 3717 R1 Accessory Gearbox Starter Shaft Bearing																						
ECP TBD Solenoid Mounting Plate																						
F402-RR-408 Combustion																						
ECP-3705R1 Bottom Heat Sheild					5	*																
ECP 3745 Combustion Chamber Improvements							1	*	24	0.5												
F402-RR-408 Compressor																						
ECP TBD Improvements to LP and HP Pulse Probe Drives							1	*	24	0.2												
ECP 3834 LPC 1 Vane Platform Inner Retention									1	*												
ECP-3812 Alt Grease in LP and HP Nozzle Raceways						0.1																
ECP-3864 Replacement P3 Transducer				0.1																		
ECP-3873 HP/LP Pulse Probe Phonic Wheel				0.1																		
F402-RR-408 EVICS																						
ECP 3877 EVICS HMU Introduction of Restrictor						0.1																
F402-RR-408 Forigen Object Damage																						
ECP-3843 Sand Tolerant NGV			11	1.3	11	1.3	10	1.2	11	1.3												
ECP 3806 Hot Nozzle Cracking						*																
F402-RR-408 Fuel Control																						
ECP-248 R1 Pilot's Lever Angle Unit (PLAU)					1	*																
ECP TBD DCU Redesign						1.0																
F402-RR-408 Gas Turbine Starter																						
ECP-TBD GTS PWR TURBINE/COMPRESSOR RGV/Compressor Turbine						0.1																
ECP 589 GTS Chip Detector			211	1.2	98	0.5																
Installation Kits N/R																						
Installation Equipment																						
Installation Equipment N/R				0.0		1.0		0.8		0.6												
Engineering Change Orders																						
Data				0.0		0.2		0.2		0.2												
Training Equipment																						
Support Equipment				**1.0**																		
ILS				0.2		0.2		0.2		0.2												
Other Support				0.6		0.6		0.5		0.6												
Interim Contractor Support																						
Installation Cost																						
Total Procurement				**4.4**		**5.2**		**3.1**		**3.7**												

Notes:

1. Retrofit to be accomplished via attrition and O-Level Installation

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: ALE-47 25-04

MODELS OF SYSTEM AFFECTED: AV-8B Night, AV-8B Night/Radar TYPE MODIFICATION: Upgrade

DESCRIPTION/JUSTIFICATION:

ALE-47 is a Form-Fit-Enhanced Functionality Counter Measures Dispenser System replacement for the obsolete ALE-39. This OSIP installs more reliable digital sequencers and dispenser magazines to improve aircraft readiness. When fully funded, the Warfare Management Computer (WMC) software will be modified to allow full ALE-47 functionally.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Improves aircraft readiness by replacing failure prone analog sequencers and dispenses.
Positions the AV-8B for future integration of advanced counter measures expendables and programs.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits			28	0.4																		
Installation Kits N/R																						
Installation Equipment																						
Installation Equipment N/R																						
Engineering Change Orders																						
Data				0.7																		
Training Equipment				0.1																		
Support Equipment				1.5																		
ILS				0.3																		
Other Support				3.9																		
Interim Contractor Support																						
Installation Cost																						
TOTAL PROCUREMENT				**6.8**																		

Notes:

1. Retrofit to be accomplished via O-level installation.

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: Readiness Management Plan (RMP) OSIP 06-06

MODELS OF SYSTEM AFFECTED: TAV-8B, AV-8B Night, AV-8B Night/Radar TYPE MODIFICATION: Safety

DESCRIPTION/JUSTIFICATION:

This OSIP provides for maintaining the reliability of the AV-8B weapons system until it's projected end of service which is now expected to extend to 2020 or until replaced by STOVL JSF. This requires the airframe to exceed planned service life and will require both structural and obsolescence solutions. Funds will be utilized to incorporate ECPs and implement changes for AV-8B weapons system safety, structural integrity deficiency, and component (avionics/systems) obsolescence conditions as they arise. Based on funding controls, the program intends to proceed with ECP-282P1 – Fuel Coupling – will install new clamshell couplings with safety straps; ECP-282P2 – modify the wing to fuselage fuel interconnect with threaded couplings; ECP CHPT-34 – Tactical Aircrew Combat Training System (TACTS) Antenna – replaces antenna attachment bolts; ECP-283 – Water Tank Pre-filter – incorporates a filter to prevent contamination of the poppet drain valve; ECP-305 Throttle and Stick Grip, TAV-8B – replaces obsolete throttle and stick grips with current fleet configuration; ECP-309 Fuel Bellows Conduit Leak – incorporates a safer double bellows design with increased gage material – incorporation by attrition; ECP-TBD Center Tank Improvement - Replaces failing structural frames 19, 20, 21 with a strengthened design. Incorporation by both attrition and scheduled depot installations; ECP-TBD Aft Structural Modification Improvement – will install structural sensors/recorders in all aircraft – to allow early detection and enable design resolution of Frame 43 bulkhead cracking -- in the area of the vertical tail and horizontal stabilizer to prevent catastrophic failure; ECP-TBD Bullet Fairing – modify to prevent corrosion deterioration of fairing internal structure; ECP-TBD Wedge Frame – will develop and implement a solution for acoustic resonance fatigue cracking of webs and panels – near the auxiliary air doors; ECP-TBD -- Main Landing Gear (MLG) Hand Operating Strut – redesign to forestall premature strut wear resulting in premature failure of MLG door mechanism; ECP-TBD Frame 16 – provide solution of fatigue cracking in the engine nozzle ring raceway and bulkhead buttresses; ECP-TBD Air Loc Replacement – modify and replace fasteners for improved retention to reduce FOD; ECP-TBD Frame 30, 31 and 32 – implement solution for structural fatigue cracking; ECP-TBD Blast Shields – implement solution for acoustic fatigue failures ECP-TBD -- Forward ECS Air Ducts – modify failing staying ties which are causing FOD in the ECS system; ECP-TBD Display Computers – modify to address processor obsolescence.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Awaiting approval for unfunded ECP's. Specific milestone are currently being developed.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E				0.5		0.3		2.0		6.3												
PROCUREMENT																						
Installation Kits																						
ECP 282 (P-1) Fuel Coupling									31	0.1												
ECP 282 (P-2) Fuel Coupling									31	0.1												
ECP 283 Water Tank Pre-Filter																						
ECP 305 Throttle Stick and Grip																						
ECP TBD Center Tank Improvement							12	0.5	12	0.5												
ECP TBD Aft Struct Mod. Improvement							12	*	12	*												
ECP TBD Bullet Fairing																						
ECP TBD Wedge Frame																						
ECP TBD Frame 16																						
ECP TBD Air Loc Fasteners Replac.									30	*												
ECP TBD ECS Air Ducts																						
ECP TBD Hand Operating Strut									15	0.1												
ECP TBD Frame 30, 31, 32									1	0.1												
ECP TBD Display Computer Kits																						
Installation Kits N/R								0.2		0.2												
Installation Equipment										*												
Installation Equipment N/R																						
Engineering Change Orders								0.3		0.6												
Data								0.3		0.7												
Training Equipment																						
Support Equipment								1.8		1.2												
ILS								*		0.8												
Other Support								0.2		0.9												
Interim Contractor Support																						
Installation Cost									25	2.3												
TOTAL PROCUREMENT								**3.3**		**7.6**												

1. Asterisk indicates amount less than 50K.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **TAV-8B, AV-8B Night, AV-8B Night/Radar**

MODIFICATION TITLE: Readiness Management Plan (OSIP 006-06) (Center Tank, Wedge Frame, Bullet Fairing, Frame 16, Frame 30, 31, 32, Aircraft Structural Mod. Improvement and Throttle Stick and Grip)

INSTALLATION INFORMATION: **Quantities will not match Kit Procurement line due to "O" Level Installs.**

METHOD OF IMPLEMENTATION: **Installation will be accomplished by Naval Aviation Depot drive in modification.**

ADMINISTRATIVE LEADTIME: Months

PRODUCTION LEADTIME: It varies with each ECP Months

CONTRACT DATES: FY 2004 FY2005 Multiple FY 2006 Multiple FY 2007 Multiple

DELIVERY DATE: FY 2004 FY2005 Multiple FY 2006 Multiple FY 2007 Multiple

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY ( ) kits																						
FY 2004 ( ) kits																						
FY 2005 ( ) kits																						
FY 2006 (24) kits									24	2.1												
FY 2007 (25) kits									1	0.1												
FY 2008 (105) kits																						
FY 2009 (131) kits																						
FY 2010 (119)kits																						
FY 2011 (125) kits																						
To Complete (303) kits																						
TOTAL									25	2.3												

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	0													6	6	6	7								
Out	0													6	6	6	7								

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

CLASSIFICATION: UNCLASSIFIED

Exhibit P-40, BUDGET ITEM JUSTIFICATION

DATE: **February 2005**

APPROPRIATION/BUDGET ACTIVITY
Aircraft Procurement, Navy/APN-5 Aircraft Modifications

P-1 ITEM NOMENCLATURE
Adversary Series

Program Element for Code B Items:

Other Related Program Elements

	Prior Years	ID Code	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	To Complete	Total
QTY		A										
COST (In Millions)	**30.1**	A	**2.6**	**5.4**	**5.0**	**2.6**						**45.9**

This line item funds modifications to convert a total of 32 F-5E Aircraft, procured from the Government of Switzerland, into a Navy approved configuration. It allows the U.S. Navy to maintain as close a standardized configuration with the Air Force as possible based on need. It also allows the Navy to initiate unique structural or avionics modifications. The overall goal of the modifications budgeted in 2006 is to incorporate airframe modifications and selected Air Force approved Time-Compliance Technical Orders (TCTO's) to improve safety and reliability. The specific modifications budgeted and programmed are for the F-5 Structural Repair Program.

(TOA, $ in Millions)

OSIP No.	Description	Prior Years	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	To Complete	Total
29-81	F-5 Structural Repair Program	30.1	2.6	5.4	5.0	2.6						**45.9**
Total		**30.1**	**2.6**	**5.4**	**5.0**	**2.6**						**45.9**

Note: Totals may not add due to rounding.

Exhibit P-3a Individual Modification

MODIFICATION TITLE: F-5 STRUCTURAL REPAIR PROGRAM (OSIP 29-81)

MODELS OF SYSTEMS AFFECTED: F-5 ADVERSARY AIRCRAFT TYPE MODIFICATION: SAFETY/RELIABILITY

DESCRIPTION/JUSTIFICATION: The Navy F-5E/F Adversary aircraft inventory, and all applicable funds are for 36 aircraft. USAF updated durability, damage, and tolerance analysis, structural inspection, full scale fatique testing and counting accelerometer data has identified structural fatique in wings and fuselage areas. The US Navy plans to utilize these aircraft in the Adversary mission through FY2015, and beyond. However, aircraft will be grounded prior to 2015, when maximum fatique life is reached on major structural components, unless further analysis and replacements are procured and installed. The Navy plans to replace the current high time fuselage with low time Swiss F-5E Fuselages. Also, Wings, as well as, Horizontal Stablizers, Vertical Stabilizers, Upper/Lower Cockpit Longerons, and Dorsal Longerons require replacement as they reach their fatique life limit. Installation of a Structural Data Recorder is planned to ensure accurate recording of flight profile data which can provide up to a 25% increase in usage of these high costs fatique critical components. Also, repair of other critical safety-of-flight systems such as, Flight Controls and Canopy Latching mechanisms will be accomplished under this program.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: All components and systems required for this program are already qualified, and/or approved for Navy use. No Operational Testing is envisioned under this program.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
Various Kit	411	13.0																				
Cockpit Longeron	13	0.9	5	0.3	9	0.6	9	0.6	5	0.4												
Swiss/US Conversion Kit	5	0.2	4	0.2	9	0.4	9	0.4	5	0.2												
Installations Kit N/R		6.2																				
Data		1.2																				
Training Equipment																						
Support Equipment																						
ILS		2.3		0.2		0.7		0.8		0.1												
Other Support		1.7		0.4		0.8		0.4		0.1												
Interim Contractor Support																						
Installation Cost	313	1.8																				
Installation V-Stab	9	0.7	4	0.3	4	0.3	1	0.1	1	0.1												
Installation Cockpit Longeron	10	1.0	4	0.4	9	0.9	10	1.1	8	0.9												
Installation Swiss to US Conversion	5	1.1	4	0.9	9	1.6	9	1.7	5	1.0												
Total Procurement		**30.1**		**2.6**		**5.4**		**5.0**		**2.6**												

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **F-5 ADVERSARY** MODIFICATION TITLE: VERTICAL STABILIZER

INSTALLATION INFORMATION: **DEPOT LEVEL**

METHOD OF IMPLEMENTATION: **CONCURRENT WITH PHASE DEPOT MAINTENANCE**

ADMINISTRATIVE LEADTIME: Months PRODUCTION LEADTIME: Months

CONTRACT DATES: FY 2004: FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY ( ) kits	9	0.7	4	0.3	4	0.3	1	0.1	1	0.1												
FY 2004 ( ) kits																						
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	**9**	**0.7**	**4**	**0.3**	**4**	**0.3**	**1**	**0.1**	**1**	**0.1**												

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	9		2	1	1			2	2			1				1									
Out	9		2	1	1			2	2			1				1									

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: F-5 ADVERSARY

MODIFICATION TITLE: COCKPIT LONGERON

INSTALLATION INFORMATION: DEPOT LEVEL

METHOD OF IMPLEMENTATION: **CONCURRENT WITH PHASE DEPOT MAINTENANCE**

ADMINISTRATIVE LEADTIME: 1 Months

PRODUCTION LEADTIME: 8 Months

CONTRACT DATES: FY 2004: Nov-03 FY 2005: Nov 04 FY 2006: Nov-05 FY 2007: Nov-06

DELIVERY DATE: FY 2004: Jun-04 FY 2005: Jun-05 FY 2006: Jun-06 FY 2007: Jun-07

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits	10	1.1	3	0.2																		
FY 2004 ( ) kits			1	0.2	4	0.4																
FY 2005 ( ) kits					5	0.5	4	0.4														
FY 2006 ( ) kits							6	0.6	3	0.3												
FY 2007 ( ) kits									5	0.5												
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	**10**	**1.1**	**4**	**0.4**	**9**	**0.9**	**10**	**1.1**	**8**	**0.9**												

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	10			1	3		4		5		4		6		3		5								
Out	10			1	1	1	1		3	1	5		4		5	1	3								

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: F-5 ADVERSARY

MODIFICATION TITLE: SWISS TO US CONVERSION

INSTALLATION INFORMATION: DEPOT LEVEL

METHOD OF IMPLEMENTATION: **CONCURRENT WITH PHASE DEPOT MAINTENANCE**

ADMINISTRATIVE LEADTIME: 1 Months

PRODUCTION LEADTIME: 1 Months

CONTRACT DATES: FY 2004: Nov-04 FY 2005: Nov 05 FY 2006: Nov-06 FY 2007: Nov-07

DELIVERY DATE: FY 2004: Dec-04 FY 2005: Dec 05 FY 2006: Dec-06 FY 2007: Dec-07

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY (5) kits	5	1.1																			**5**	**1.1**
FY 2004 (4) kits			4	0.9																	**4**	**0.9**
FY 2005 (9) kits					9	1.6															**9**	**1.6**
FY 2006 (9) kits							9	1.7													**9**	**1.7**
FY 2007 (5) kits									5	1.0											**5**	**1.0**
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	**5**	**1.1**	**4**	**0.9**	**9**	**1.6**	**9**	**1.7**	**5**	**1.0**											**32**	**6.2**

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	5		2	2			4	5			4	5			4	1									
Out	3	2	2	1	1		2	4	3		2	4	3		2	3									

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-40, BUDGET ITEM JUSTIFICATION

DATE: **February 2005**

APPROPRIATION/BUDGET ACTIVITY
Aircraft Procurement, Navy/APN-5 Aircraft Modifications

P-1 ITEM NOMENCLATURE
F-18 Series Modification

Program Element for Code B Items:

Other Related Program Elements

	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
QUANTITY												
COST (In Millions)	1,878.4		373.0	424.1	422.4	466.0	519.8	541.9	516.6	523.0	1,364.1	7,033.6

This line item funds modifications to F/A-18 aircraft. The F/A-18 Naval Strike Fighter is a twin-engine, mid-wing, multi-mission tactical aircraft. The F/A-18 is employed in both Navy and Marine Corps squadrons. Commencing with the FY 1988 procurement, both the single seat and two-seat F/A-18's include a night attack capability. F/A-18 can be missionized through selected use of external equipment to accomplish specific fighter or attack missions. This commonality provides the Operational Commander more flexibility in employing his tactical aircraft in a dynamic scenario. The primary design mission for the F/A-18 is a strike fighter which includes the traditional fighter applications, such as fighter escort and fleet air defense, combined with the attack applications, such as interdiction and close air support. Since the same fighter and self defense capability is retained, the overall goal of the modifications budgeted in FY 2006 is to implement commonality/capability and structural safety and reliability improvements. The specific modifications budgeted and programmed are:

(TOA, $ in Millions)

OSIP No.	Description	Prior Years	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
11-84	Correction of Discrep.	431.0	53.4	34.4	35.8	46.6	47.4	50.8	90.9	59.9	174.7	1,024.9
39-92	AN/ARC-210	16.4	1.1	0.7								18.1
19-94	Common Configuration	177.7	0.8	0.1								178.6
36-94	GPS	77.4	3.0	1.9	1.1						17.4	106.8
38-94	AN/APG-73 RUG	143.4	0.6									144.0
12-96	PIDS	52.7	1.2	1.0							191.0	245.9
3-97	ATARS	240.5	4.2	4.3	7.8						0.1	256.9
10-99	DCS	8.3	5.6	4.8	3.4	2.5	1.8	1.5	1.4	1.4		30.7
11-99	SLMP	93.7	30.7	102.7	86.7	111.6	114.0	115.4	123.3	124.8	358.9	1,261.6
12-99	MIDS[1]	190.6	37.6	47.0	39.6	46.2	48.1	49.2	28.4	21.3		508.0
20-99	NACES P3I	19.7	0.5									20.2
21-00	USMC F/A-18 UPGRADE (ECP583)	184.5	32.8	19.8	35.0	33.1	10.7	9.4	33.4	40.2	35.7	434.6
24-00	JHMCS	8.2	22.4	26.3	37.1	39.1	36.9	40.8	40.0	40.1	137.0	427.9
12-01	ATFLIR	138.3	102.5	107.6	128.9	150.0	149.1	153.4	24.4	24.6		978.7
19-01	E/F 2000 hr Correction of Discrep.	24.2	3.5	7.9	2.4	1.9	0.5	0.5				40.8
05-02	Digital Wing Tip for AIM 9X	2.3	0.7	0.2	0.2	0.2	0.2	0.5	0.3	0.5		5.1
06-02	C/D Training System	18.6	16.0	13.9	7.7	6.8	7.0	7.1	7.0	13.0		97.0
15-02	Fast Tactical Imagery II	2.5	1.0									3.5
12-03	E/F 4000 hr Correction of Discrep.	8.1	3.0	2.9	2.2	1.8	1.0	0.6			0.5	20.2
13-03	E/F 6000 hr Correction of Discrep.	1.1	0.9	3.1	1.7	1.8	0.5	0.5				9.7
14-03	E/F Correction of Operational Discrep.	18.2	26.3	34.0	17.0	15.5	19.3	20.5	11.1	11.1	13.5	186.6
15-03	Mark XIIA Mode 5 IFF[2]	0.5	1.6									2.1
08-05	Reserve Squadron ECP560			7.9	7.9	0.4	0.4	0.3				16.8
23-04	Core Avionics Improvements/Upgrades	19.8	3.0	0.7	3.5	3.8	2.8	3.0	6.1	6.3		49.0
24-04	Litening At Targeting Pod	0.7	2.5	3.0								6.1
09-06	Link 4A Replacement				4.5	4.7	9.7	10.7	11.1	7.4	4.3	52.4
XX-08	AESA						70.4	77.6	117.4	122.6	425.2	813.2
XX-10	Network Centric Ops/Interoperability Upgrade								21.7	49.9	74.8	146.4
	USMC REDUCTION (Note 1)		18.2									18.2
TOTAL		1,878.4	373.0	424.1	422.4	466.0	519.8	541.9	516.6	523.0	1,364.1	7,033.6

Note 1: The FY2004 budget total includes $18.2M from Title IX "Bridge" supplemental funds previously allocated to budget line that subsequently have been moved.

	RESERVE INCLUDED IN TOTAL	11,705	11,780	7,901	7,885	368	351	335				

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **CORRECTION OF DISCREPANCIES IDENTIFIED DURING PRELIMINARY EVALUATION, SUBSEQUENT FLIGHT TEST PROGRAMS AND FLEET OPERATIONS (OSIP 11-84)**

MODELS OF SYSTEM AFFECTED: **F/A-18 A/B/C/D** TYPE MODIFICATION: **SAFETY /RELIABILITY/IMPROVEMENT**

DESCRIPTION/JUSTIFICATION:

*Corrections to discrepancies found during testing and evaluation can sometimes be incorporated into production aircraft, effective with the physical configuration audit which establishes the product baseline of the aircraft. However, when this cannot be done due to time constraints, retrofit of the changes into already delivered aircraft requires funding through the Aircraft Modification Program. Additionally, deficiencies discovered during fleet operations must be corrected. The unacceptable alternative to retrofitting would be multiple configurations in the fleet, which will create maintenance and supply problems, and in many cases the mission capability of the aircraft would be adversely affected as well as reduced service life. Corrections to the following items/conditions are required:

External Stores EMI Protection (ECP 087S1)	Provide for the application of external stores EMI Protection. This ECP includes Installation Costs ONLY.
Auto AC Bus Isolation (ECP 121R1)	Modifies the 50A Battery Charging Converter installation to automatically isolate the busses and reset the generators following a dual power outage.
Battery Control Relay Unit (ECP 165R1)	Safety modification to the utility/emergency battery control circuits and adds a battery relay control unit. Prevents inadvertent battery discharge.
FY86 Block Upgrade (ECP 178R1C1)	Increases the power handling capabilities of the four port antenna and the RF switchable filter in order to accommodate the RF power output requirements of the ASPJ System.
Center Fuselage Structural Mods (ECP 241R1)	Improves fatigue for the Dorsal Deck, Duct Skin rivets at Y442, ECS Inlet Casting, and Y419 Nacelle Former at Ramp Truss Attachment.
Dorsal Longeron (ECP 251)	Life extension modification to the Dorsal Longeron.
Dorsal Longeron (ECP 251R1)	Life extension modification to the Dorsal Longeron.
470.5 Bulkhead (ECP 262)*	Improves the fatigue life of the Y470.5 Bulkhead Outer Cap.
Righthand AMAD Bay (ECP 267R1)*	Reliability and maintainability improvement to the interference between the motive flow tube and the hot fuel recirculation tube.
Y508 Former (ECP 276)	Structural improvement of the Y508 Former by increasing the flange thickness and reinforcing the former with integral ribs.
AFT Engine Mount (ECP 305R1)*	Safety modification improves the aft engine mount support to prevent cracking in the aft engine mount support fitting.
Y657.35 Engine Bay Door Former (ECP 306)	Modifies the existing door former to prevent cracking.
Main Landing Gear (MLG) Planing Link (ECP 311)*	Safety modification to the existing planing link assembly. Belleville washers spring is replaced with nested external compression springs to provide additional overcenter locking force and stroke capability.
MLG Trunnion Upgrade (ECP 319)*	Safety modification reconfigures and strengthens the MLG trunnion assembly to prevent catastrophic failure upon landing or takeoff.
Y488 Bulkhead (ECP 320)	Modifies the Y488 bulkhead to reduce structural stress and improve fatigue life.
Wing Fatigue Repair (ECP 353)	Modifies the fastener holes in the Wing Panel Forward Spar and the #4 Intermediate Wing Spar to increase fatigue life.
MLG Shoulder Belt (ECP 355)	Safety modification provides new shoulder bolts to correct a deficiency concerning elongation of the AFT bolt hole in the MLG Door Actuator Support Fitting.
ASPJ System Improvement (ECP 364)	Improves reliability and maintainability by improving the cooling system and correcting transmit switchable filter qual test problems.
Y470 Bulkhead Improvement (ECP 365)	Modifies the Y470 bulkhead to reduce structural stress and improve fatigue life.
#1 Fuel Cell Floor (ECP 367)	Safety modification to improve the fuel cell floor strength to prevent cracking during catapult.
MLG Retract Actuator (ECP 375)	Redesigns the MLG Retract Actuator Support Fitting and the Flange of Y470.5 Bulkhead where the fitting attaches and revises hydraulic timing to lengthen the Fatigue Life of the structures.
Fretting on Formers & Spindles (ECP 391)	Safety modification to correct fretting observed on outboard formers of horizontal stabilizer.
Fuselage Skin, Y518 to Y534 (ECP 402)*	Modifies exterior fittings and adds and internal bathtub to strengthen the area, reduce structural stress, and improve fatigue life.
Fuselage Skin, Y518 to Y534 (ECP 402R1)*	Modifies exterior fittings and adds and internal bathtub to strengthen the area, reduce structural stress, and improve fatigue life.
Inlet Duct Skin at Y453 (ECP 417)	Addresses the retrofit design which will provide 12,000 SFH of life without cracks for the Inlet Duct Skin.
Y470.5 Bulkhead MLG Trunnion (ECP 428)	Corrects the deficiency in the MLG Trunnion support at Y470.5 bulkhead.
Speed Brake Trough (ECP 440)	Modifies the existing speed brake trough area to strengthen it and improve fatigue life.
SUU-63 Wing Pylon Door Panel (ECP 488)	Safety modification to the existing door panel to preclude loss of the door during flight
Y470.5 Bulkhead Fatigue Change (ECP 492)	Modifies the thickness of the existing bulkhead web to increase strength and improve fatigue life.
Fuselage Skin at Y453 (ECP 498)	Safety modification to strengthen existing fasteners attaching the P/N 74A324350 former to Y453 bulkhead.
Nacelle Skin Fatigue Improvements (ECP 501)	Retrofits the Inlet Nacelle Skin to correct acoustic vibration related fatigue failures.
LAU-115 Sparrow Mod (ECP 506)*	Modifies the lower rail of the LAU-115 to strengthen the area of the AIM-7 Sparrow missile forward hanger interface and improve fatigue life.
ST-16 Failures (ECP 536)*	Modifies aircraft between Lot VI and Lot XVI ro realize Full Life Airframe (6000 Fatigue Hours)
Improvement of Inner Wing SPAR (ECP 544)	Strengthens the existing inner wing spar to improve fatigue life.
Fuel Barrier Web (ECP 548)	Safety improvement to the existing fuel barrier web to prevent fuel leaks.
Wing Drag Longeron (ECP 550)*	Structural improvement to the Wing Drag Longeron due to tabs attached to the closeout webs were cracking during installation.
Y326.5 Plate Nut (ECP 561)	Modifies the existing fasteners at the Y326.5 Bulkhead to improve fatigue life.
Lower Center Keel Fire Hazard (ECP 562)	Safety improvement to the secondary pressure regulator bay to eliminate fire hazards.
Aileron/Trailing Edge Flap (ECP 574)	Provides a full-life improvement for aircraft degradation caused by cracked trailing edge flap and aileron hinges.
Flight Control Computer (ECP 595)	Improves safety-of-flight for the recovery from, and resistance to, out-of-control flight (OOCF) while also eliminating anomalies cited in FCC OFP 91C*004. **(NON-RECURRING COSTS ONLY)**
Hydraulic Temp Gauges (ECP NI 879)	Improves the reliability of the hydraulic temperature gauges.
Environment Control System Wiring (NI 742)	Modifies wiring to the number 3 Relay Panel Assembly to connect the Left MainGear (LMG) Weight on Wheels (WOW) Relay ABD the Dump/RAM Dump Relay.
Wing Fuel Dams (NI 796)	Safety improvement modifies the inner wing inboard closure rib to prevent fuel leaks.
MLG Trunnion Assembly (NI 824)	Safety improvement to the MLG trunnion assembly to improve fatigue life and prevent failed landing gear mishaps.
Heat Exchanger (NI 827)	Provides for the removal of the nickel core and replaces with a more reliable stainless steel and nickel core.
Night Vision Display System (NVDS) (NI 830)	Adds capability to the lighting system to make the NVDS compatible.
Trailing Edge Flap (NI 839)	Safety modification to the trailing edge flap to correct flap departures while in flight.
Birdstrike Res Windshield (NI 843)	Safety modification to the windshield to protect against birdstrikes during flight.
Aileron Hinge Mod (NI 844)	Provide a full-life improvement for aircraft degradation caused by cracked trailing edge flap and aileron hinges.
ANTI G VALVE (ECP XXX)	Improves pilot G-Load tolerance as part of the Navy Combat Edge (NCE) Anti-G Protection System.
Fuel Cell Floor Crack (ECP 973)	Safety modification to correct cracks at Y431, Y442, and Y453 in the fuel cavity floor deck centerline under tank two and three.
Side Fuselage Crack (ECP592)	Safety improvement to the fatigue life of the forward skin section of the chem-milled panels.
Front SPAR Crack (ECP XXX5)	Strengthens the existing front inner wing SPAR to improve fatigue life.
Forward Lower Keel Modification (ECP NI 931)	Improves fatigue life of the Nose Landing Gear (NLG) Drag Brace.
Main Landing Gear (MLG) Axle (ECP 952)	Incorporation of Full Life redesigned Main Landing Gear Axle Polygon, extending Axle's service life from current 8300 total landings to 13000.
MLG Y488 Bulkhead (ECP XXX8)	Restores Full Life to Y488 Bulkhead due to cracks around MLG Uplock hardware holes
LOX OBGS Conversion (ECP XXX9)	Retrofit LOX equipped aircraft with OBOGs solutions that are integrated with supplemental oxygen systems
Crease Longeron (ECP XX10)	Restores the load path lost when the Crease Longeron cracks at FS 453.
Heat Deterrent (ECP XX11)	Modifies the aircraft to correct structural fatigue problems caused by degraded ECS Peri-Seals.
Nose Landing Gear/MLG/Control Value Restrictior	Improve hydraulic fluid rate and reduce hydraulic line failures.
Bay 3 Shelf Redesign (ECP XXX13)	Modify avionic shelves to withstand catapult fatigue loads.
Bay 4 Shelf Redesign (ECP XXX14)	Modify avionic shelves to withstand catapult fatigue loads.
Cockpit Warning System (ECP XXX-15)	Notify pilot when pressurization is lost in cockpit.
Vertical Tail (ECP XXX-16)	Modify vertical tail former and spars to prevent gatigue cracking.
Canopy/Windscreen (ECP XXX-17)	Modify canopy/windscreen frames and address delamination.
DIFRS (ECP XXXX)	Digital Flight Incident Recorder

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Each change has been or will be tested prior to installation in the F/A-18.

ECP 536 moved from OSIP 11-99 to OSIP 11-84 in FY02. No installs currently planned; possible in future.

Unit cost variances due to: - Many ECP Kits were/are provided to the Navy at no additional costs (warranty kits).*

- Some ECPs have numerous Technical Directives with different unit costs.

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **CORRECTION OF DISREPANCIES IDENTIFIED DURING PRELIMNARY EVALUATION, SUBSEQUENT FLIGHT TEST PROGRAMS AND FLEET OPERATIONS (OSIP 11-84)**

MODELS OF SYSTEM AFFECTED: **F/A-18 A/B/C/D** TYPE MODIFICATION: **SAFETY /RELIABILITY/IMPROVEMENT**

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
ECP 087S1/External Stores EMI Protection																						
ECP 121R1/Auto AC Bus Isolation	356	0.7																				
ECP 165R1/Battery Control Relay Unit	251	0.5																				
ECP 178/FY86 Block Upgrade	82	4.7																				
ECP 241R1/Center Fuselage Structural Mods	1,719	0.6																				
ECP 251/Dorsal Longeron	1,926	0.8																				
ECP 251R1/Dorsal Longeron	443	8.6																				
ECP 262/470.5 Bulkhead	494	*																				
ECP 267R1/Righthand AMAD Bay	287	*																				
ECP 276/Y508 Former	836	1.0																				
ECP 305/AFT Engine Mount	619	*																				
ECP 306/Y657.35 Engine Bay Door Former	688	0.9																				
ECP 311/Main Landing Gear (MLG) Planing Link	10	*																				
ECP 319/MLG Trunnion Upgrade	1,405	*																				
ECP 320/Y488 Bulkhead	473	1.2																				
ECP 353/Wing Fatigue Repair	98	0.7																				
ECP 355/MLG Shoulder Belt	350	0.2																				
ECP 364/ASPJ System Improvement	225	*																				
ECP 365/Y470 Bulkhead Improvement	982	1.0																				
ECP 367/#1 Fuel Cell Floor	557	0.3																				
ECP 375/MLG Retract Actuator	1,323	5.7																				
ECP 391/Fretting on Former's & Spindles	582	0.3																				
ECP 402/Fuselage Skin, Y518 to Y533	638	*																				
ECP 402R1/Fuselage Skin, Y518 to Y534	720	2.1																				
ECP 417/Inlet Duct Skin at Y453	575	2.0																				
ECP 428/Y470.5 Bulkhead MLG Trunnion	2	0.1																				
ECP 440/Speed Brake Trough	591	1.0																				
ECP 488/SUU-63 Wing Pylon Door Panel	1,351	0.8																				
ECP 492/Y470.5 Bulkhead Fatigue Change	688	1.4																				
ECP 498/Fuselage Skin at Y453	696	0.7																				
ECP 501/Nacelle Skin Fatigue Improvements	663	3.7																				
ECP 506/LAU-115 Sparrow Mod	935	*																				
ECP 536/ST-16 Failures	9	*			20	3.2	20	3.1	20	3.1												
ECP 544/Improvement of Inner Wing SPAR	29	0.3																				
ECP 548/Fuel Barrier Web	750	1.4																				
ECP 550/Wing Drag Longeron	119	0.2																				
ECP 561/Y326.5 Plate Nut	532	0.2																				
ECP 562/Lower Center Keel Fire Hazard	798	0.4																				
ECP 574/Trailing Edge Flaps	1,026	26.8							50	1.2												
ECP 574/Aileron	707	18.2																				
NI879/Hydraulic Temp Guages	150	0.2			100	0.3	100	0.3	100	0.3												
NI 742/Environment Control System Wiring	150	0.2																				
NI 796/Wing Fuel Dams	415	0.6	100	0.2	35	0.1	35	0.1														
NI 824/MLG Trunnion Assembly	425	13.4																				
NI 827/Heat Exchanger	37	0.4																				

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **CORRECTION OF DISREPANCIES IDENTIFIED DURING PRELIMNARY EVALUATION, SUBSEQUENT FLIGHT TEST PROGRAMS AND FLEET OPERATIONS (OSIP 11-84)**

MODELS OF SYSTEM AFFECTED: **F/A-18 A/B/C/D** TYPE MODIFICATION: **SAFETY /RELIABILITY/IMPROVEMENT**

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
NI 830/Night Vision Display System (NVDS)	14	0.3																				
NI 839/Trailing Edge Flap	1,150	9.4																				
ECP XXX - ANTI G VALVE	800	1.0																				
ECP 973 -Fuel Cell Floor Crack					10	0.1	40	0.8	80	1.7												
ECP 592 - Side Fuselage Crack																						
ECP XXX5 - Front SPAR Crack					10	0.2	40	0.8	40	0.9												
ECP NI 931 - Forward Lower Keel Modification					20	0.3	20	0.3	40	0.6												
ECP 952 - MLG Axle	583	14.4	105	2.7																		
ECP XXX8 - MLG Y488 Bulkhead					80	0.2	80	0.3	80	0.3												
ECP XXX9 - LOX OBGS Conversion									20	0.5												
ECP XX10 - Crease Longeron																						
ECP XX11 Heat Derrent					50	1.0	25	0.5	100	2.1												
(ECP XX112) Nose Landing Gear/MLG/Control Value Restriction																						
(ECP XXX13) Bay 3 Shelf Redesign							45	0.2	45	0.2												
(ECP XXX14) Bay 4 Shelf Redesign							45	0.2	45	0.2												
(ECP 6217) Cockpit Warning System				0.1			150	0.6	150	0.6												
(ECP XXX-16) Vertical Tail							10	0.3	10	0.3												
(ECP XXX-17) Canopy/Windscreen									10	*												
(ECP XXX-XX) DIFRS						1.1																
Installation Kits N/R		12.3		4.7		0.7		1.0		0.2												
Installation Equipment		0.2																				
Installation Equipment N/R		0.1						0.3		0.6												
Engineering Change Orders																						
Data		1.2		5.1		0.1																
Training Equipment																						
Support Equipment		1.5																				
ILS		81.4		29.3		21.0		20.2		20.3												
Other Support										1.3												
Interim Contractor Support																						
Installation Cost	17,062	208.2	739	11.3	422	6.1	445	6.8	710	12.1												
TOTAL PROCUREMENT		431.0		53.4		34.4		35.8		46.6												

Notes:

1. Totals may not add due to rounding.
2. Asterisk indicates amount less than $50K.
3. ECP 087S1 (External Stores EMI Protection) and ECP XX10 (Crease Longeron) includes "Installation Costs" only.
4. ECP 595 (Flight Control Computer) includes Non-Recurring Costs only.

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **AN/ARC-210 ELECTRONIC PROTECTION (EP) COMBINATION RADIO (OSIP 39-92)**

MODELS OF SYSTEM AFFECTED: **F/A-18C/D** TYPE MODIFICATION: **CAPABILITY IMPROVEMENT**

DESCRIPTION/JUSTIFICATION:

The AN/ARC-210 (ORD# 486-88-93) is a combination UHF/VHF, AM/FM jam-resistant radio that was developed to allow for EP interoperability with the Air Force, Army and NATO. The radio provides dual UHF capability for carrier based TACAIR; VHF FM for close air support and maritime channels; VHF AM for air traffic control; and EP capabilities using the Air Force developed waveforms (UHF-AM HAVEQUICK I and II), and the Army developed waveform (VHF-FM SINCGARS). The AN/ARC-210 can be controlled by either a remote control unit or via a MIL-STD-1553 multiplex data bus. The EP parameters and single channel preset information can be loaded via a CYZ-10 Data Transfer Device (DTD). The fill information can consist of word-of-day for HAVEQUICK; the KGV-10 transec variable, hopsets and frequency lock-out tables for SINCGARS. F/A-18 ARC-210 requirements will be satisfied by retrofitting Lot X through Lot XVI and forward fitting Lot XVII through Lot XXI.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

F/A-18 was the lead aircraft for the AN/ARC-210 development program; therefore, retrofit procurement began in FY92. AN/ARC-210 Milestone III was approved in April 1994. First article test completed in January 1994. The additional requirements shown in this budget for FY2001 - 2004 reflect the fleet's desire for a common communications capability for Lots X and above F/A-18C/D. ARC-210 radios removed from other aircraft during DCS upgrade will be installed in F/A-18C/D Lots X and XI.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
Lot XII through XXI Kit	79	1.3																				
Lot X through XI Kit	141	4.0																				
Installation Kits N/R		0.8																				
Installation Equipment **																						
Lot XII through XXI Kit	114	5.6																				
Lot X through XI Kit																						
Installation Equipment N/R																						
Engineering Change Orders																						
Data		0.3																				
Training Equipment																						
Support Equipment																						
ILS		0.3		*																		
Other Support				*																		
Interim Contractor Support																						
Installation Cost	179	4.2	26	1.1	15	0.7																
TOTAL PROCUREMENT		16.4		1.1		0.7																

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. ** Quantities refer to number of radios (2/aircraft). The equipment and common logistics requirements for this OSIP have been funded in the AN/ARC-210 Common OSIP (4-94) starting in FY94.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **F/A-18C/D** MODIFICATION TITLE: **AN/ARC-210 ELECTRONIC PROTECTION (EP) COMBINATION RADIO (OSIP 39-92)**

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **PUBLIC/PRIVATE COMPETITION AND AT NAVAL AVIATION DEPOTS.**

ADMINISTRATIVE LEADTIME: **Months** PRODUCTION LEADTIME: **Months**

CONTRACT DATES: FY 2004: FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (220) kits	179	4.2	26	1.1	15	0.7																
FY 2004 ( ) kits																						
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	179	4.2	26	1.1	15	0.7																

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	179	15	11	0	0	0	15	0	0	0	0	0	0	0	0	0	0
Out	179	15	11	0	0	0	15	0	0	0	0	0	0	0	0	0	0

	FY 2008				FY 2009				FY 2010				FY 2011				To Complete	TOTAL
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In																		
Out																		

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **COMMON CONFIGURATION (OSIP 19-94)**

MODELS OF SYSTEM AFFECTED: **F/A-18A/B/C/D** TYPE MODIFICATION: **CAPABILITY IMPROVEMENTS / SAFETY**

DESCRIPTION/JUSTIFICATION:

Prior to FY 2002, this OSIP was used for various relatively small capability imrpovement ECPs. Included in this OSIP were: Cockpit Video Recording System (CVRS); AYK-14 Very High Speed Integrated Circuit (VHSIC) Processor Module; and the Advnaced Targeting FLIR (subsequently moved to its own OSIP). The F/A-18 CVRS upgrade improved operational debriefing, increased resolution and recording time, and improved fleet training. The AN/AYK-14(V) Very High Speed Integrated Circuit (VHSIC) Processor Module has three important features: a new computer chassis, VHSIC processor cards and 1M/W memory on the processor cards that allowed necessary growth through the 1990's and beyond. With the F/A-18 C/D out of production since 1997, this OSIP is also used to procure modified Peculiar Support Equipment . The Mission Planning System provides capabilities and displays required by the aircrew to plan and execute a mission from a cockpit perspective by providing a set of aircraft planning functions, reports and graphic display options.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

CVRS utilizes moderately militarized HI-8MM video recorders that are currently available (no development required) with CVRS installed. The AN/AYK-14 is fully developed. It was production incorporated into Lot XV and subsequent F/A-18C/Ds and has had retrofit funding since 1994.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
NI818/CVRS	314	2.9																				
CDII-045/VPM("O"Level")	559	57.0																				
CDII-051/VPM("O"Level")	217	20.6																				
INSTALLATION KITS N/R		20.0																				
INSTALLATION EQUIP.																						
NI818/CVRS																						
CDII-045/VPM("O"Level")																						
CDII-051/VPM("O"Level")	291	7.6																				
INSTALLATION EQUIP. N/R																						
ENGINEERING CHANGE ORDERS																						
DATA		3.8																				
TRAINING EQUIPMENT		0.3																				
SUPPORT EQUIPMENT(SE NR, PSE,SE ILS)		53.1		0.8		0.1																
ILS		6.3																				
OTHER SUPPORT																						
INTERIM CONTRACT SUPPORT																						
Installation Cost	727	6.2	2	0.0																		
TOTAL PROCUREMENT		177.7		0.8		0.1																

Notes:
1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. Funding previously budgeted in this OSIP for the Mission Planning System has been moved to to OSIP 23-05.

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **F/A-18 GLOBAL POSITIONING SYSTEM (GPS) (OSIP 36-94)**

MODELS OF SYSTEM AFFECTED: **F/A-18A/B/C/D** TYPE MODIFICATION: **SAFETY / CAPABILITY IMPROVEMENT**

DESCRIPTION/JUSTIFICATION:

GPS (ORD# 401-88-95) is a space-based worldwide radio navigation aid that provides precise position, velocity, and time data under all-weather conditions twenty-four hours a day, and is proposed to replace land-based TACAN. Incorporation of the GPS in the F/A-18 aircraft provides the following: accurate navigation position and velocity, precision close air support, onboard sensor positioning, command and control guidance, search and rescue guidance, accurate all-weather air drops and accurate time standard. The F/A-18A (Lot VI through IX) GPS requirements will be satisfied by retrofitting the Embedded Global Positioning Inertial Navigation System. F/A-18C/D requirements will be satisfied by retrofitting the Miniature Airborne GPS Receiver (MAGR) in Lot X through Lot XVI and forward fitting Lot XVII through Lot XXI. This OSIP will also be used to perform non-recurring efforts to address parts obsolescence and to examine potential GPS-related capability upgrades associated with Network Centric Operations and interoperability requirements.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

The Embedded Global Positioning System (GPS) and Inertial Navigation System (INS) (EGI) program is a joint multi-user NDI acquisition which achieved Milestone III in FY94. Contract award was 4 March 1994, with Engineering Design Review completed in July 1994.

The Embedded GPS/INS (EGI) system was supposed to be an NDI system, however, it has required a significant amount of development, which has resulted in schedule slips. As a result, F/A-18 has been adversely impacted in the following areas:

1. F/A-18A/B/C/D can no longer meet the Congressional mandate to have GPS installed in all A/C by the year 2005.
2. F/A-18 Mission Computer S/W testing to incorporate EGI functionality has experienced continual slips due to EGI hardware immaturity.
3. The immaturity of the EGI has resulted in a delay of the Validation and Verification (Val/Ver) of the EGI A-Kits in all versions of the F/A-18.
4. As a result of the above impacts, a decision was made to install the Miniature Airborne GPS Receiver (MAGR) in F/A-18C/D Lot X through Lot XVII A/C. MAGR is a lower risk option and has been installed as a forward fit in Lot XVII and above A/C. Since EGI performance has not completed testing, MAGR is the only option that ensures the most rapid, low risk retrofit. This plan results in the least impact to further F/A-18C/D modifications. Furthermore, a decision was also made to continue with the development of the EGI in order to meet GPS requirements for the F/A-18A/B (Lot IX and below) . F/A-18 A/B's cannot be retrofitted with a MAGR integration due to space restrictions and airframe differences. In summary, F/A-18 has had to develop new integration plans for GPS that now include the integration of both MAGR and EGI. EGI A-Kits were put on order using FY96/97/98 funding based on an NDI assumption, however due to above mentioned reasons, the EGI A-Kits now need to be converted to MAGR A-Kits with no pricing impact. The procurement of MAGR B-Kits to catch up with converted MAGR A-Kits has resulted in F/A-18 not meeting the full funding requirement while protecting the risk and schedule of this high visibility program. PMA-209 (OSIP 71-88) is funding the procurement of a portion of the installation equipment reflected in the total column below which explains the difference between the installation kits and equipment. Increase in NRE funding in FY01 thru 03 due to requirements for increased testing and integration for "B" kits (installation equipment).

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
Lot VI through IX Kit (Note 3)	67	5.1																			67	5.1
Lot X through XVI Kit	387	6.2	57	1.6																	444	7.8
Installation Kits N/R		34.6																				34.6
Installation Equipment																						
Lot VI through IX Kit																			152	13.3	152	13.3
Lot X through XVI Kit	362	11.9	12	0.5	16	0.7													33	4.1	423	17.1
Installation Equipment N/R						0.5																0.5
Engineering Change Orders		4.1																				4.1
Data																						
Training Equipment		2.0																				2.0
Support Equipment		1.8																				1.8
ILS		1.1		0.3		0.4																1.8
Other Support																						
Interim Contractor Support																						
Installation Cost	370	10.6	15	0.6	15	0.4	44	1.1													588	18.8
TOTAL PROCUREMENT		77.4		3.0		1.9		1.1												23.4		106.8

Notes:

1. Funds in house will be realign in FY06 to support installation of equipment.
2. Asterisk indicates amount less than $50K
3. 15 "A" kits procured in FY91 to 98 were not installed due to technical issue addressed above.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **F/A-18A/B/C/D** MODIFICATION TITLE: **F/A-18 GLOBAL POSITIONING SYSTEM (GPS) (OSIP 36-94)**

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Navy Depot Field Mod Team at Five (5) Locations**

ADMINISTRATIVE LEADTIME: **5 Months** PRODUCTION LEADTIME: **18 Months**

CONTRACT DATES: FY 2004: FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (387) kits	370	10.6	15	0.6	2	0.0																
FY 2004 (57) kits					13	0.4	44	1.1														
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	370	10.6	15	0.6	15	0.4	44	1.1														

15 "A" kits procured in FY91 to 98 were installed due to technical issue addressed above.

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	370	3	4	4	4	3	4	4	4	11	11	11	11	0	0	0	0
Out	370	3	4	4	4	3	4	4	4	11	11	11	11	0	0	0	0

	FY 2008				FY 2009				FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	TOTAL
In																		
Out																		

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **AN/APG-73 RADAR UPGRADE (RUG) PHASE I & RUG PHASE II (OSIP 38-94)** TYPE MODIFICATION: **CAPABILITY IMPROVEMENT**

MODELS OF SYSTEM AFFECTED: **F/A-18C/D**

DESCRIPTION/JUSTIFICATION:

The F/A-18 radar (AN/APG-65), requires an upgrade to improve electronic counter-countermeasure (ECCM) performance against improved threat electronic countermeasures (ECM). This threat ECM improvement has partially resulted from compromises in the F/A-18 radar performance against various threat electronic warfare systems. The AN/APG-73 radar follows and capitalizes on AN/APG-70 and AN/APG-71 developmental and value engineering programs to maximize shop replaceable assembly (SRA) commonality. ORD # 199-05-88 (Radar Upgrade Phase I) and ORD # 022-05-83 (Radar Upgrade Phase II).

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Forward fit of the AN/APG-73 was incorporated into Lot 16 (Block 43) and subsequent aircraft. Rug Phase I was approved for full rate production of retrofit units in September 1996. This OSIP reflects retrofit of Lot 13 through Lot 16 (Block 42) aircraft. A Pre-planned Product Improvement (P3I) Phase II to the RUG program developed improved hardware and software for an all-weather Reconnaissance (RECCE) strip map mode. Additional modes can be incorporated with software changes as required in the future. Development of RUG Phase II completed in FY 1998 and retrofit procurements began in FY 1999.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E (0204136N/E2065)		297.1																				297.1
PROCUREMENT																						
Installation Kits																						
ECP 508 / RUG - Phase I Kit	58	103.0																			58	103.0
ECP 569 / RUG - Phase II Kit	34	13.1																			34	13.1
Installation Kits N/R		5.6																				5.6
ECP 508 / RUG - Phase I Kit																						
ECP 569 / RUG - Phase II Kit																						
Installation Equipment																						
ECP 508 / RUG - Phase I Equip																						
ECP 569 / RUG - Phase II Equip																						
Installation Equipment N/R		2.2																				2.2
Engineering Change Orders																						
Data																						
Training Equipment																						
Support Equipment		4.1																				4.1
ILS		14.5		0.5																		15.0
Other Support																						
Interim Contractor Support																						
Installation Cost	51	1.0	7	0.1																	58	1.1
TOTAL PROCUREMENT		143.4		0.6																		144.0

Notes:
1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **F/A-18C/D** MODIFICATION TITLE: **AN/APG-73 RADAR UPGRADE (RUG) PHASE I & RUG PHASE II (OSIP 38-94)**

METHOD OF IMPLEMENTATION: **Phase I kits are Depot Level; Phase II kits are Organization level. Schedule below reflect RUG Phase I installs only.**

ADMINISTRATIVE LEADTIME: **4 Months** PRODUCTION LEADTIME: **18 Months**

CONTRACT DATES: FY 2004: FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (58) kits	51	1.0	7	0.1																		
FY 2004 (0) kits																						
FY 2005 (0) kits																						
FY 2006 (0) kits																						
FY 2007 (0) kits																						
FY 2008 (0) kits																						
FY 2009 (0) kits																						
FY 2010 (0) kits																						
FY 2011 (0) kits																						
To Complete (0) kits																						
TOTAL	51	1.0	7	0.1																		

($ in Millions)

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	51	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Out	51	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	FY 2008				FY 2009				FY 2010				FY 2011				To Complete	TOTAL
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In																		
Out																		

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **POSITIVE IDENTIFICATION SYSTEM (OSIP 12-96)**

MODELS OF SYSTEM AFFECTED: **F/A-18C/D** TYPE MODIFICATION: **CAPABILITY IMPROVEMENT**

DESCRIPTION/JUSTIFICATION:

The Positive Identification System (PIDS) will allow the F/A-18 to positively identify another aircraft. The requirement for positive identification of enemy and friendly aircraft arose from Desert Storm lessons learned and is a CNO high priority issue. Although Lot applicability is back to Lot X, FYDP funding represents an affordable plan. ORD # 446-88-96

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Forward fit of the PIDS (CIT) for the F/A-18 began in FY 1995 with the last block of Lot 19 aircraft. Retrofit kit procurement started in FY1996. Val/Ver kits were installed in FY98. Kit installation began in FY99. PIDS (CIT) had a successful OPEVAL with Software Configuration Set (SCS) 13C.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E		89.7																				
PROCUREMENT																						
Installation Kits																						
Lot X through XIX Kit	90	27.9																				
Lot XX through XXI Kit																						
Installation Kits N/R		7.0																				
Installation Equipment (Note 1)																						
Lot X through XIX Kit																						
Lot XX through XXI Kit																						
Installation Equipment N/R																						
Engineering Change Orders																						
Data		1.2																				
Training Equipment		2.7																				
Support Equipment		5.4																				
ILS		2.2		0.1																		
Other Support																						
Interim Contractor Support																						
Installation Cost	73	6.3	9	1.1	8	1.0																
TOTAL PROCUREMENT		52.7		1.2		1.0																

Notes:
1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. FY05 installation will be funded with FY04 funds.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **F/A-18C/D** MODIFICATION TITLE: **POSITIVE IDENTIFICATION SYSTEM (OSIP 12-96)**

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **DEPOT LEVEL**

ADMINISTRATIVE LEADTIME: **6 Months** PRODUCTION LEADTIME: **18 Months**

CONTRACT DATES: FY 2004: FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (90) kits	73	6.3	9	1.1	8	1.0																
FY 2004 (0) kits																						
FY 2005 (0) kits																						
FY 2006 (0) kits																						
FY 2007 (0) kits																						
FY 2008 (0) kits																						
FY 2009 (0) kits																						
FY 2010 (0) kits																						
FY 2011 (0) kits																						
To Complete (436) kits																						
TOTAL	73	6.3	9	1.1	8	1.0																

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	73	4	4	1	0	0	8	0	0	0	0	0	0	0	0	0	0
Out	73	4	4	1	0	0	8	0	0	0	0	0	0	0	0	0	0

	FY 2008				FY 2009				FY 2010				FY 2011				To Complete	TOTAL
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In																		
Out																		

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **F/A-18 ADVANCED TACTICAL AIRBORNE RECONNAISSANCE SYSTEM (ATARS) (OSIP 3-97)**

MODELS OF SYSTEM AFFECTED: **F/A-18D(RC)** TYPE MODIFICATION: **OPERATIONAL UPGRADE**

DESCRIPTION/JUSTIFICATION:

The need for a modern reconnaissance capability for the Navy and Marine Corps was clearly demonstrated during Operation Desert Shield/Desert Storm. Specific deficiencies noted were: poor connectivity with coalition forces, no wide-area standoff or all weather reconnaissance, and insufficient quantities of reconnaissance platforms. Lessons learned emphasized the value of timely imagery intelligence to support the tactical commander's concept of operations. In order to provide low to medium altitude, day/night, penetrating under-the weather overflight imagery to meet the Operational Requirement for the Navy and Marine Corps, the Navy is capitalizing on the work accomplished in the former ATARS Program and is leveraging the Air Force investment in ATARS to develop an ATARS-based Tactical Reconnaissance System for the F/A-18. Since system delivery, a need has arisen to upgrade the current recording system to a Digital Solid State Recorder. A Congressional add in FY 2004 provided funding for procurement of 6 recorders.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

An engineering change to the F/A-18 which would allow internal carriage of reconnaissance sensors was incorporated in production via ECP-206 in the F/A-18D starting with FY 1992 procured aircraft. All subsequently procured F/A-18Ds contained the reconnaissance modifications in their baseline configuration. Development of the Advanced Tactical Airborne Reconnaissance System (ATARS) began in 1988 with the Air Force as the lead service. ATARS was developed as a common reconnaissance system for use by the Air Force, Navy, and Marine Corps in both manned and unmanned platforms. The Air Force and the ATARS prime contractor mutually agreed to a cessation of effort on the ATARS contract in June 1993, and the Navy/Marine Corps assumed program leadership in August 1993. A go-ahead decision to procure four(4) LRIP-1 ATARS systems in February 1997 and six (6) LRIP-2 units and four Datalink pods in March 1998. An Early Operational Capability (EOC) was approved in May 1999 leading to a deployment of the system to Kosovo. Formal OPEVAL began in September 1999 leading to a Milestone III decision in July 2000 for Full Rate Production. NAVAIR ECP-549, allowed for the procurement & Installation of the AN/ASD-10(V) ATARS Sensor System Pallet and the AN/ARQ-56 Data Link Pod, and resulted in AFC-244 (an "O" Level Change), and AVC-4744 (an "O" Level Change). These changes have been approved and implemented. NAVAIR North Island submitted ECP-960, a depot level modification to the F/A-18 SUU-62 Centerline Pylon to enable carriage of the AN/ARQ-56 ATARS Data Link Pod. This ECP resulted in a need for additional funding in FY 2002 through FY 2004. Since system delivery, a need has arisen to upgrade the current recording system to a Digital Solid State Recorder. Congress added $11.9M in FY 2003 to integrate this capability into the F/A-18D ATARS capable aircraft. This development is scheduled to be completed in FY 2004.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E		223.4		11.5																		
PROCUREMENT																						
Installation Kits																						
Suites, DL, Ground Stations	39	159.5																				
Solid State Recorders			6	2.2	6	2.2	6	1.7														
Installation Kits N/R		33.8																				
Installation Equipment				1.0				0.9														
Installation Equipment N/R																						
Engineering Change Orders		2.0		*																		
Data																						
Training Equipment		0.2																				
Support Equipment		8.3		0.2		0.2		0.1														
ILS		13.6		0.5		0.1		0.1														
Other Support		22.1		0.3		1.8		4.8														
Interim Contractor Support		1.0																				
Installation Cost							12	0.2														
TOTAL PROCUREMENT		240.5		4.2		4.3		7.8														

Notes:
1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

INSTALL KIT COMPONENTS BREAKOUT:

	FY97	FY98	FY99	FY00	FY01
ATARS SUITES	4	6	4	5	0
DATA LINK PODS	0	4	0	0	9
SQUADRON GROUND STATIONS	1	2	4	0	0

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **DIGITAL COMMUNICATIONS SYSTEM (DCS) (OSIP 10-99)**

MODELS OF SYSTEM AFFECTED: **F/A-18 C/D (Lots 10-21)** TYPE MODIFICATION: **CAPABILITY IMPROVEMENT**

DESCRIPTION/JUSTIFICATION:

The Digital Communications System (DCS) consists of an upgraded AN/ARC-210 Receiver Transmitter (RT) [with embedded digital message transfer capability and embedded Communications Security (COMSEC)] installed in the F/A-18 and integrated with the F/A-18 weapons system [mission computer, controls & displays, and communication subsystem]. The DCS utilizes preformatted messages to communicate with standard USMC, USA, and USAF digital communications devices to facilitate Close Air Support (CAS), Deep Air Strike (DAS), and Tactical Air Control (TAC) missions. DCS reduces voice communications requirements which tend to be slow, inaccurate, and susceptible to Meaconing, Interference, Jamming, and Intrusion (MIJI). DCS will enhance mission effectiveness by decreasing pilot workload which allows the pilot more time to counter increased threat capabilities. ORD# 486-88-98. This OSIP will also be used to address parts obsolescence issues and to perform non-recurring work associated with Network Centric operations and Interoperability requirements.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

The AN/ARC-210 RT is being upgraded to a DCS RT. The Initial Engineering Developmental Model (EDM) was delivered (using RDT&E,N resources) in FY1998 as scheduled. The F/A-18C/D requirements will be satisfied by retrofitting DCS into Lot X through Lot XXI. Functionality was provided in the Operational Flight Program (OFP) 15C fleet release in FY2000. Initial procurement of installation kits was awarded May 1999. F/A-18C/D Lots X and XI require an ACI and DCS radio. DCS radios are purchased through OSIP 04-94 (PMA-209). "B" Kits (Radios) purchased in FY02 and FY03 through this OSIP are to balance total inventory of radios to installation kits. OSIP 04-94 is purchasing 20 Install A kits in FY05 and 40 Install A kits in FY06. Additional ACI requirements for increased install provisions are currently funded under OSIP 12-99.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E		35.3																				
PROCUREMENT																						
Installation Kits																						
Lot XII through XXI Kit	228	0.7	36	0.1	72	0.2	24	0.1														
Lot X through XI Kit			72	0.5	31	0.3	20	0.1														
Installation Kits N/R		0.6																				
Installation Equipment																						
Lot XII through XXI Kit ("B" Kit)	14	0.7	26	1.2																		
Lot X through XI Kit (ACI)	32	3.0	40	2.5	36	2.4	20	1.3														
Installation Equipment N/R																						
Engineering Change Orders						0.6																
Data		*																				
Training Equipment		0.6																				
Support Equipment		0.7		0.1		0.2																
ILS		1.0		0.2		0.4		0.2		0.4												
Other Support																						
Interim Contractor Support																						
Installation Cost	115	1.0	56	1.0	57	0.8	81	1.7	120	2.1												
TOTAL PROCUREMENT		8.3		5.6		4.8		3.4		2.5												

Notes:
1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. "Installations" are 60 greater than "Installation Kit Procurement" due to 60 kits being procured on OSIP 04-94.
4. Installation cost varies depending on aircraft configuration and Lot being retrofit.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **F/A-18 C/D (Lots 10-21)** MODIFICATION TITLE: **DIGITAL COMMUNICATIONS SYSTEM (DCS) (OSIP 10-99)**

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Navy Depot Field Mod Team**

ADMINISTRATIVE LEADTIME: **3 Months** PRODUCTION LEADTIME: **24 Months**

CONTRACT DATES: FY 2004: Jan-04 FY 2005: Jan-05 FY 2006: Jan-06 FY 2007: Jan-06

DELIVERY DATE: FY 2004: Jan-06 FY 2005: Jan-07 FY 2006: Jan-08 FY 2007: Jan-08

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (228) kits	115	1.0	56	1.0	57	0.8																
FY 2004 (108) kits							81	1.7	27	0.5												
FY 2005 (123) kits									93	1.7												
FY 2006 (84) kits																						
FY 2007																						
FY 2008																						
FY 2009																						
FY 2010																						
FY 2011																						
To Complete ( ) kits																						
TOTAL	115	1.0	56	1.0	57	0.8	81	1.7	120	2.1												

NOTE: "Installations" are 60 greater than "Installation Kit Procurement" due to 20 kits in FY05 and 40 kits in FY06 being procured on OSIP 04-94.

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	115	18	18	10	10	13	12	16	16	0	27	27	27	27	31	31	31
Out	115	18	18	10	10	13	12	16	16	0	27	27	27	27	31	31	31

	FY 2008				FY 2009				FY 2010				FY 2011				To Complete	TOTAL
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In																		
Out																		

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **F/A-18 AIRCRAFT STRUCTURAL LIFE MANAGEMENT PLAN (SLMP) (OSIP 11-99) CBR+**

MODELS OF SYSTEM AFFECTED: **F/A-18C/D** TYPE MODIFICATION: **SAFETY / LIFE EXTENSION**

DESCRIPTION/JUSTIFICATION:

Incorporation of structural enhancements and changes is required to attain F/A-18 service life and maintain sufficient aircraft inventory to meet fleet operational requirements through FY2020. Structural enhancements and changes include resolution of discrepancies identified as a result of Structural Test (ST-16) and in-service experience. These enhancements and changes include: modifications to allow the entire airframe to achieve 6,000 spectrum flight hours; modifications to ensure structures currently limited to 78% of design life can achieve 100% life; modifications to ensure landing gear, catapult and attachment components and associated structure achieve at least 2700 cats/traps; modifications to ensure landing gear and attachment structure achieve a total of at least 14,500 landings for F/A-18 /C's and 17,000 landings for F/A-18 B/D's; to ensure flight control surfaces and associated / attaching components achieve 6,000 spectrum flight hours; to ensure a 30-year service life for primary and secondary structural components of metallic and nonmetallic (composite, polymer, etc) construction. The unacceptable alternative to retrofitting would be the failure to reach full fatigue life for these aircraft and to not correct the structural defects discovered on fatigue test articles. In many cases, the mission capability of the aircraft would be adversely affected in addition to its reduced service life. As a result, aircraft may be prematurely removed from useful service. Center Barrel Replacement Plus (CBR+) is applicable to F/A-18A/Bs as well as to F/A-18C/Ds. Currently F/A-18A/Bs are not in the plan. However, the F/A-18As being retrofitted with upgraded avionics changes may require a service life extension in the future.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Currently all Lot VI through XVII aircraft have 78% life limits without the SLMP modifications to bring them to 100% airframe life. MDA and NGC developed ECP536 retrofit repair to modify these aircraft so they could restore the airframe to full life. ECP 536 was approved and Validation was completed May 2001. NADEP North Island developed ECP904NI (CBR+) which was approved on 27 April 2000. Validation started October 2000 and was completed in August 2001. Verification started August 2001 and was completed June 2002. ECP 536 moved from this OSIP to OSIP 11-84 in FY02.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E		19.6																				
PROCUREMENT																						
Installation Kits																						
ECP 904 Part 1	53	41.3	23	20.1	65	49.7	25	21.7	35	31.0	35	31.6	40	36.7	40	37.6	40	38.3	66	26.5	422	334.5
ECP 904 Part 2	17	13.5	4	0.3	45	1.1	20	0.3	30	0.5	30	0.5	32	0.7	32	0.7	32	0.7	38	0.7	280	19.0
ECP 904 Part 3	5	*					47	7.4	60	9.7	32	5.3	32	5.4	32	5.5	32	5.6	76	7.0	316	45.9
ECP 904 Part 4											40	7.4	30	5.1	58	10.0	45	7.9	305	43.1	478	73.6
Installation Kits N/R		15.8		0.2		9.9				6.1		1.1		1.3		1.7		1.8				39.6
Installation Equipment	6	0.8	7	0.3	24	1.0	36	1.6	40	1.8	40	1.8	40	1.8	40	1.9	40	1.9	146	3.4	419	16.2
Installation Equipment N/R		0.2				0.5				0.7								0.5				1.9
Engineering Change Orders																						
Data		4.8				0.1						0.1										5.0
Training Equipment																						
Support Equipment																						
ILS		9.6		3.3		9.9		10.7		9.8		12.1		8.5		9.3		8.5		16.5		98.2
Other Support																						
Interim Contractor Support																						
Installation Cost	9	7.6	7	6.6	24	30.5	36	45.0	40	52.1	40	54.0	40	55.9	40	56.6	40	59.4	146	261.7	422	629.4
TOTAL PROCUREMENT		93.7		30.7		102.7		86.7		111.6		114.0		115.4		123.3		124.8		358.9		1,261.6

Notes:

1. Totals may not add due to rounding
   - *** ECP536 VAL/VER Kit provided under warranty.**
   - **** Prior Year VAL/VER Kits: (1) provided under warranty by Boeing and (1) provided by NAVICP on hand assets.**
   - ***** Installations slipped one year due to FY01 funding reductions.**
2. "Installation Kit" Pricing is Quantity Sensitive. FMS procurements in some years affects unit price.
3. ECP 904 Part 2 is required to correct a Root Wing FLE problem and is not required for all aircraft.
4. ECP 904 Part 3 is to required fix CAT & TRAP deficiences. It is not required for all aircraft.
5. FY06 ECP 904 Part 2 procured (4) Nacelle Fastners only to complete "C" aircraft installs.
6. FY06 ECP 904 Part 2 unit cost reflects remanufactured kits vice procuring new.
7. FY06 ECP 904 Part 3 is an "O'" Level Install, does not have to installed concurrently with Part I and II.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **F/A-18C/D** MODIFICATION TITLE: **F/A-18 SERVICE LIFE MANAGEMENT PROGRAM (SLMP) (OSIP 11-99) CBR+**

INSTALLATION INFORMATION: **CONTRACTOR PROVIDING 1 WARRANTY KIT**

METHOD OF IMPLEMENTATION: **ONE KIT INSTALLED BY CONTRACTOR FOR VAL/VER, OTHER INSTALLS BY DEPOT**

ADMINISTRATIVE LEADTIME: **3 Months** PRODUCTION LEADTIME: **24 Months**

CONTRACT DATES: FY 2004: Jan-04 FY 2005: Jan-05 FY 2006: Jan-06 FY 2007: Jan-07

DELIVERY DATE: FY 2004: Jan-06 FY 2005: Jan-07 FY 2005: Jan-08 FY 2007: Jan-09

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & Prior (53) kits	9	7.6	7	6.6	24	30.5	13	16.2														
FY 2004 (23) kits							23	28.8														
FY 2005 (65) kits									40	52.1												
FY 2006 (25) kits																						
FY 2007 (35) kits																						
FY 2008 (35) kits																						
FY 2009 (40) kits																						
FY 2010 (40) kits																						
FY 2011 (40) kits																						
To Complete (66) kits																						
TOTAL	9	7.6	7	6.6	24	30.5	36	45.0	40	52.1												

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	9	1	2	2	2	6	6	6	6	9	9	9	9	10	10	10	10								
Out	5	1	1	1	1	1	2	2	2	6	6	6	6	10	10	10	10								

	FY 2010				FY 2011				To	TOTAL
	1	2	3	4	1	2	3	4	Complete	
In										
Out										

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **MULTI-FUNCTIONAL INFORMATION DISTRIBUTION SYSTEM (MIDS) (12-99)**

MODELS OF SYSTEM AFFECTED: **F/A-18C/D/E/F** TYPE MODIFICATION: **CAPABILITY IMPROVEMENT**

DESCRIPTION/JUSTIFICATION:

The system is Tactical Data Link Communications to provide a secure communications and navigation system. MIDS is a Pre-planned Product Improvement (P3I) to the Joint Tactical Information System (JTIDS) and will be installed in USN/USMC F/A-18 aircraft as the primary U.S. platform, since the aircraft can not accommodate the larger JTIDS Class 2 Terminals due to size and weight constraints. MIDS LVT is an International Cooperative Program (ICP) development with France, Germany, Italy, and Spain. A PMOU and Supplement 1 is in effect. The system will be interoperable with JTIDS Class 2 Terminals utilized by NATO allies as well as the other Services. F/A-18 will be interoperable with all Link 16 equipped platforms in U.S. and Allied Nations. This OSIP will also be used to perform efforts to address parts obsolescence and to examine potential MIDS-related capability upgrades associated with Network Centric Operations and interoperability requirements. ORD # 337-06-93. MIDS interoperability for six (6) squadrons of MIDS ready C/D/E/F/G aircraft provides terminal upgrades to improve MIDS interoperability across all Link 16 terminal types.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

This OSIP is planned for incorporation of MIDS into F/A-18C/D (Lots 12-21) and F/A-18E/F (Lots 22-26). A MIDS installation kit Critical Design Review (CDR) was held at Boeing in September 1996. MIDS Terminal initial Engineering and Manufacturing Development (E&MD) delivery for F/A-18 occurred in February 1998. Installation into the first three (3) EMD aircraft began in March 1998 and ended in September 1998. In May 1999, Boeing was awarded the ECP contracts required to provision the F/A-18E/F for the MIDS LVT while still in production. These provisions include: an Interference Blanking Unit (IBU); an Amplifier Control Intercommunication Unit (ACI); a MIDS Compatible CIT upgrade; and a MIDS Compatible Transponder upgrade. This list of equipment was also required to be retrofit into F/A-18C/D and is included as the "Avionics Upgrade" in the table below. These provisions are required by other F/A-18 programs and can be installed independently of MIDS LVT. OPEVAL was completed in June 2003, with a recommendation of operationally effective and operationally not suitable. A Verification Correction of Deficiencies (VCD) was completed on 15 August 2003. The VCD report delivered on 4 September 2003 recommended full fleet release. Full Rate Production approval was granted on 25 September 2003.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E		29.5		0.4		0.9		1.5		1.7												
PROCUREMENT																						
Installation Kits																						
Lot 12 through 21 Kits	184	30.2	48	7.7	48	7.7	48	7.5	48	7.5												
Lot 10 through 11 Kits																						
Installation Kits N/R																						
Installation Equipment																						
Avionics Upgrade	184	32.5	48	8.4	48	8.4	48	8.3	48	8.3												
MIDS LVT	172	57.5	65	15.7	72	21.2	54	16.1	76	21.4												
MIDS INTEROPERABILITY																						
Installation Equipment N/R		37.2																				
Engineering Change Orders						0.5				0.5												
Data		1.4																				
Training Equipment																						
Support Equipment		2.9		0.7		0.9		0.3		0.6												
ILS		4.8		0.9		0.6		0.1		0.5												
Other Support		13.5				3.0		2.4		2.7												
Interim Contractor Support																						
Installation Cost	94	10.5	42	4.2	48	4.8	48	4.8	48	4.8												
TOTAL PROCUREMENT		190.6		37.6		47.0		39.6		46.2												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. "A" Kits and Avionics Upgrade continue to be procured and MIDS installations continue on the C/D's to maintain schedule.
4. 12 Installations kits and Avionics Upgrades, plus 23 MIDs LVT procured through DERF($11.5M), in FY02. Installation will be accomplished through budgeted FY04 installation cost.
5. 173 MIDS LVTs planned for Lot 22 - 26 E/F (provisioned in production) and 40 planned for DT & OT.
6. Production Engineering (w/ SPAWAR) scheduled to pay share of FSE support and associated Fleet Standup and deployment Issues (Other Support).

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **F/A-18C/D/E/F** MODIFICATION TITLE: **MULTI-FUNCTIONAL INFORMATION DISTRIBUTION SYSTEM (MIDS) (12-99)**

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **DEPOT LEVEL**

ADMINISTRATIVE LEADTIME: **5 Months** PRODUCTION LEADTIME: **18 Months**

CONTRACT DATES: FY 2004: Mar-04 FY 2005: Mar-05 FY 2006: Mar-06 FY 2007: Mar-07

DELIVERY DATE: FY 2004: Sep-05 FY 2005: Sep-06 FY 2006: Sep-07 FY 2007: Sep-08

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & Prior (184) kits	94	10.5	42	4.2	48	4.8																
FY 2004 (48) kits							48	4.8														
FY 2005 (48) kits									48	4.8												
FY 2006 (48) kits																						
FY 2007 (48) kits																						
FY 2008 (48) kits																						
FY 2009 (0) kits																						
FY 2010 (0) kits																						
FY 2011 (0) kits																						
To Complete (0) kits																						
TOTAL	94	10.5	42	4.2	48	4.8	48	4.8	48	4.8												

*Note: DERF funded "A" kit procurement.

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	94	15	15	6	6	12	12	12	12	12	12	12	12	12	12	12	12								
Out	94	15	15	6	6	12	12	12	12	12	12	12	12	12	12	12	12								

	FY 2010				FY 2011				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										
Out										

Exhibit P-3a

INDIVIDUAL MODIFICATION

MODIFICATION TITLE: **F/A-18C/D/E/F NACES P3I (Navy Aircrew Common Ejection Seat Pre-Planned Product Improvement) (OSIP 20-99)**

MODELS OF SYSTEM AFFECTED: **F/A-18C/D/E/F NACES EJECTION SEATS** TYPE MODIFICATION: **SAFETY**

DESCRIPTION/JUSTIFICATION:

An average of 15 Naval Aircrew fatalities occur each year from in-flight mishaps. Nearly half result from the seat ejecting aircrew into the ground or water at low altitude and adverse attitude. Congressional direction to increase U.S. Navy aircrew anthropometric range to more closely match the general aircrew population. This change will increase anthropometric range from the current 135lbs through 213lbs to 100lbs through 245lbs. The NACES P3I program is divided into three phases of development and upon completion of each phase, existing aircraft seats will be modified with retrofit kits to provide the increased capability to the NACES seat: Phase I - Current technology improvements to increase cockpit accommodation and reduce injury risk for all aircrew. Phase II - Propulsion stability control to reduce the risk of major injury to less than 5% up to 600 knots. Phase III - Stability control and surface avoidance capability for low altitudes, adverse altitudes, and out-of-control ejections.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

ECP MB6004 was approved 19 May 1999.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits	544	15.5																				
Installation Kits N/R		1.5																				
Installation Equipment																						
Installation Equipment N/R																						
Engineering Change Orders																						
Data		0.2																				
Training Equipment	12	0.3																				
Support Equipment		0.2																				
ILS		1.7		0.1																		
Other Support																						
Interim Contractor Support																						
Installation Cost	440	0.4	104	0.4																		
TOTAL PROCUREMENT		19.7		0.5																		

Notes:
1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **USMC F/A-18 UPGRADE ECP-583 (OSIP 21-00)/ Litening**

MODELS OF SYSTEM AFFECTED: **F/A-18A/B/C** TYPE MODIFICATION: **AVIONICS UPGRADE**

DESCRIPTION/JUSTIFICATION:

This OSIP upgrades USMC F/A-18A/B/Cs (Lots 7-11) to a capability level comparable to a Lot 17 F/A-18C, including both hardware and software capabilities. This requirement is critical to meet the Marine Corps requirements for the Tactical Air Integration Plan. The Avionics Upgrade includes new avionics subsystems already incorporated or in the process of being incorporated into USMC and/or FMS F/A-18 aircraft. This ECP incorporates the following subsystems in ECP 583R1: AN/ARC-210(V) with HAVEQUICK II and SINCGARS; Digital Communication Systems (DCS) Receiver/Transmitter (RT-1824(C)); Combined Interrogator/Transponder AN/APX-111 (V); Night Vision Display System (NVDS); Mission Computer CP-2360 (XN-8); Radar (AN/APG-73); Stores Management Set (SMS) (AN/AYQ-9); AMRAAM Capability (radar mod, launchers,weapons pylons and control stick); Digital Display Indicator (DDI) Upgrade; Mission Data Loader (AN/ASQ-215); Targeting FLIR provisions (AAS-38B). ECP583R1 adds a digital wingtip modification, allowing use of the AIM-9X air-to-air missile. ECP 583R2 will add the following capabilities will add: MIDS(LVT); Color Displays; JHMCS; ALE-47; TAMMAC; and AMU.

This OSIP also provides for limited integration of the Litening Enhanced Range FLIR on 24 USMC F/A-18Ds. This will allow the Marine Corps to utilize existing Litening pods, currently in the AV-8B inventory, on USMC F/A-18Ds to provide the Air Ground Task Force capability and flexibility in the execution of operations in the combat spectrum.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

While the number of aircraft to be retrofit in the program of record has not changed, the Marine Corps will now retrofit some early lot F/A-18C/Ds vice only F/A-18As due to greater remaining life on those aircraft. ECP 583 was approved 25 March 1999. ECP 583R1 was approved in August 2001. All the equipment being incorporated in this ECP has completed development. This OSIP includes a $24.5M Congressional Add in FY 2004

A New Start notification was sent to the Congress in FY 2003 to initiate the Litening integration and procurement of the FY 2004 Installation Kits. Due to lower than expected pricing, 24 aircraft are able to be modified with the originally identified funding.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
ECP 583	21	7.0	6	2.1	4	0.6	11	1.7														
ECP 583R1	76	0.3	6	*																		
ECP 583R2			1	0.1					27	3.6												
Litening			24	1.1																		
Installation Kits N/R		1.0		2.8		3.4		0.3		0.3												
Installation Equipment	917	139.4	85	18.0	16	9.6	44	28.8	138	23.7												
Installation Equipment N/R																						
Engineering Change Orders																						
Data		0.4				0.2																
Training		0.6		0.1																		
Other Support (Testing)		2.0		1.0		1.5		0.2		0.5												
Support Equipment		1.4				1.3		0.6		0.7												
ILS		12.7		6.0		3.2		0.8		3.3												
Interim Contractor Support																						
Installation Cost	46	19.7	30	1.5	3	0.0	7	2.6	4	1.0												
TOTAL PROCUREMENT		184.5		32.8		19.8		35.0		33.1												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. 34 "Installation Kits" were purchased with NGRE Funds to include: 4 Val/Vers - FY98; 20 "A" Kits - FY99; and 10 "A" Kits - FY00. The cost of these kits are not displayed in this OSIP.
4. The "Installation" unit costs for FY 2002 through FY 2005 are scewed by Congressional adds. The 6 installs in FY2004 are funded with FY 2002 Congressional add funding and the 3 installs in FY 2005 are funded with FY 2003 Congressional add funding.
5. The Installation Kit procurement of ECP583R2 is for Validation/Verification.
6. In FY 2008 the "Installation Cost" includes 11 ECP 583 and 6 ECP 583R2 kits. Beginning in FY 2008 "Installation Costs" are only for installation of ECP 583R2.
7. The additional ECP583R1 kits are being procured to retrofit Navy Reserve aircraft already modified to an ECP 583 configuration under an OSIP that is no longer active.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **F/A-18A/B/C** MODIFICATION TITLE: **USMC F/A-18 UPGRADE ECP-583 (OSIP 21-00)/ Litening (ECP583 and ECP 583R2)**

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **(ECP 583) ONE KIT INSTALLED BY CONTRACTOR FOR VAL/VER, OTHER INSTALLS FIELD TEAMS**

ADMINISTRATIVE LEAD-TIME: **4 Months** PRODUCTION LEAD-TIME: **24 Months**

CONTRACT DATES: FY 2004: Jan-04 FY 2005: Jan-05 FY 2006: Jan-06 FY 2007: Jan-07

DELIVERY DATE: FY 2004: Jan-06 FY 2005: Jan-07 FY 2006: Jan-08 FY 2007: Jan-09

METHOD OF IMPLEMENTATION: **(LITENING) ONE KIT INSTALLED BY CONTRACTOR FOR VAL/VER, OTHER INSTALLS FIELD TEAMS**

ADMINISTRATIVE LEAD-TIME: **2 Months** PRODUCTION LEAD-TIME: **4 Months**

CONTRACT DATES: FY 2004: Feb-04 FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: Jun-04 FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (55) kits [1,2,3]	46	19.7	6	*	3	*																
FY 2004 (31) kits [4]			24	1.5			7	2.6														
FY 2005 (4) kits									4	1.0												
FY 2006 (11) kits [5]																						
FY 2007 (27) kits [6]																						
FY 2008 (0) kits																						
FY 2009 (0) kits																						
FY 2010 (17) kits																						
FY 2011 (22) kits																						
To Complete (16) kits																						
TOTAL	46	19.7	30	1.5	3	0.0	7	2.6	4	1.0												

Notes:

1. 34 "Installation Kits" were purchased with NGRE funds, not included in this OSIP.
2. ECP 583 FY04 Installations are funded with FY02 Congressional add funding.
3. FY05 installations are funded with FY03 Congressional add funding.
4. FY04 installations are for Litening. FY06 installations are for 6 ECP 583 kits and 1 Val/Ver kit for ECP 583R2. Since the Val/Ver installation is contracted with the kit procurement in FY04, the funding associated with this install is budgeted in FY04.
5. FY 08 installations include 11 ECP 583 kits.
6. FY09 and later installations are for ECP 583R2.

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	2	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	46	0	0	9	21	0	0	2	1	1	2	2	2	0	1	1	2								
Out	46	0	0	9	21	0	0	2	1	1	2	2	2	0	1	1	2								

	FY 2010				FY 2011				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										
Out										

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **F/A-18 JOINT HELMET-MOUNTED CUEING SYSTEM (JHMCS) (OSIP 24-00)**

MODELS OF SYSTEM AFFECTED: **F/A-18C/D/E/F** TYPE MODIFICATION: **CAPABILITY IMPROVEMENT**

DESCRIPTION/JUSTIFICATION:

The Joint Helmet-Mounted Cueing System (JHMCS) is a multi-service system that provides United States Air Force (USAF), United States Navy (USN), and United States Marine Corps (USMC) aircraft the capability to cue and verify on-board weapons and weapons sensors to a specific azimuth/elevation determined by the pilot's head position and to confirm sensor line-of-sight. The intent is to reduce tasks required of aircrews, verify seeker/sensor position, and enhance weapons employment opportunities. In the air-to-air role, the aircrew will be able to cue and verify cueing of off-boresight weapon sensors and weapons (current and future short-range air-to-air missiles) to exploit the full weapons envelopes in the dynamic Within Visual Range (WVR) arena. In the air-to-ground role, this system will enhance lethality and survivability by reducing cockpit “heads down” and target acquisition time. For the strike, strike escort, and force application missions, the JHMCS possesses potential to enhance the flexibility of cueing weapons and sensors in the stressful air-to-ground tactical environment. The JHMCS incorporates an ejection-compatible helmet-mounted display system, with capability to cue and verify cueing of high off-axis sensors and weapons, on USAF and USN single seat and two seat fighter aircraft. The JHMCS includes a flight helmet with display optics, image source, display processor/video hardware and software to drive the display, uplook reticle, magnetic helmet tracker hardware and software, interfaces to the aircraft computers, weapons and sensor hardware, with software to integrate the JHMCS functions with other onboard systems. The JHMCS communicates with airborne sensors (FLIR, Radar) through the aircraft avionics MUX Bus. It communicates with weapons through the armament MUX Bus via the Stores Management System.

"Installation Equipment" quantities have been planned by the Joint Program Office to maximize the quantity fielded across all service platforms as expeditiously as possible, while balancing contractor production capacity. In order to meet this objective, in some cases the "Installation Equpment" is procured a year prior to the "Installation Kit" procurement. However, due to a year difference in production leadtimes both the "Installation Kits" and "Installation Equipment" will be delivered at essentially the same time. This allows for the quickest introduction to the fleet of this critical warfighting capability and balances the needs of all services with production capacity.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

F/A-18E/F JHMCS completed Developmental Testing in August 2001. Operational Test (OPEVAL) was completed in April 2002. F/A-18E/F retrofit kit procurement began in FY 2004, to be installed in FY 2005 starting with Lot 23 aircraft. JHMCS procurement for F/A-18C/D was approved at a milestone decision in January 2004. The first F/A-18C/D JHMCS retrofit kits will be procured in FY 2005 and installed in FY 2006.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY2008		FY2009		FY2010		FY2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E		54.5		24.6		12.7																
PROCUREMENT																						
Installation Kits																						
C/D					40	5.5	64	11.2	42	7.8												
E/F			14	0.4					10	1.5												
Installation Kits N/R		6.6		3.4																		
Installation Equipment																						
C/D			44	13.0	50	9.3	46	15.4	40	12.5												
E/F			14	2.9	3	0.4			10	3.2												
Installation Equipment N/R																						
Engineering Change Orders																						
Data		*		0.6		0.1																
Training																						
Support Equipment		0.8				1.5		2.5		1.3												
ILS		0.8		1.8		1.6		2.5		2.6												
Spares																						
Other Support - Testing						7.4		1.3		1.3												
Installation Cost			0	0.2	18	0.4	40	4.1	64	8.8												
TOTAL PROCUREMENT		8.2		22.4		26.3		37.1		39.1												

Notes:
1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. "Installation Equipment" is procured one year prior to "Installation Kits" due to a year greater production leadtime.
4. "Installation Kit" and "Installation Cost" unit costs begin to increase in FY 2006 and FY 2007 respectively due to introduction of Aft Seat JHMCS capability.
5. FY2004 "Installation Cost" includes funds contracted with the first Lot of Installation Kits. These 14 Kits will be physically installed in FY2005.
6. In FY 2005, the "Installation Cost" represents two (2) Validation Installs and two (2) Verification Installs for F/A-18C/D. These kits were procured as part of the "Installation Kit" Non-recurring cost in FY 2004.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **F/A-18C/D/E/F**

MODIFICATION TITLE: **F/A-18 JOINT HELMET-MOUNTED CUEING SYSTEM (JHMCS) (OSIP 24-00)**

INSTALLATION INFORMATION: **APPROX 5 KITS INSTALLED EVERY 4 WEEKS**

METHOD OF IMPLEMENTATION: **FIELD MOD TEAMS**

ADMINISTRATIVE LEAD-TIME: **2 Months**

PRODUCTION LEAD-TIME: **12 Months**

CONTRACT DATES: FY 2004: Jul-04 FY 2005: Dec-04 FY 2006: Dec-05 FY 2007: Dec-06

DELIVERY DATE: FY 2004: Jul-05 FY 2005: Dec-05 FY 2006: Dec-06 FY 2007: Dec-07

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY2006		FY2007		FY2008		FY2009		FY2010		FY2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (4) kits					4	0.4																
FY 2004 (14) kits			0	0.2	14	0.0																
FY 2005 (40) kits							40	4.1														
FY 2006 (64) kits									64	8.8												
FY 2007 (52) kits																						
FY 2008 (50) kits																						
FY 2009 (72) kits																						
FY 2010 (72) kits																						
FY 2011 (70) kits																						
To Complete (164) kits																						
TOTAL				0.2	18	0.4	40	4.1	64	8.8												

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY2006				FY2007				FY2008				FY2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	0	0	0	0	0	0	2	2	14	8	8	8	16	8	18	19	19								
Out	0	0	0	0	0	0	2	2	14	8	8	8	16	8	18	19	19								

	FY 2010				FY 2011				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										
Out										

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **ADVANCED TARGETING FORWARD LOOKING INFRARED (ATFLIR) (OSIP 12-01)**

MODELS OF SYSTEM AFFECTED: **F/A-18A+/C/D** TYPE MODIFICATION: **CAPABILITY IMPROVEMENTS**

DESCRIPTION/JUSTIFICATION:

A 3rd Generation Targeting Pod will provide the F/A-18A+/C/D with a significantly enhanced capability to detect, track and attack air and round targets. New laser guided and GPS standoff weapon systems, and higher altitude attack profiles, require improved performance over the current AAS-38/46 Targeting FLIR. A 3rd Gen Pod is designed to provide a quantum leap in operational effectiveness to fully support the standoff precision strike mission. Improved reliability and maintainability technology will increase operational availability while reducing life cycle costs. This OSIP will also be used to perform efforts to address parts obsolescence and to examine potential 3rd Gen-related capability upgrades associated with Network Centric Operations and interoperability requirements.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

ATFLIR development began in FY1997. The E&MD contract was awarded in March, 1998. Preliminary Design Review, Critical Design Review, and TECHEVAL have been completed. OPEVAL testing was completed June 2003 and the OPEVAL report was issued 4 September 2003 to support Full Rate Production decision in October 2003. NAVFLIR capability was removed from the system in December 2003.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY2008		FY2009		FY2010		FY2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E		275.6																				
PROCUREMENT																						
Installation Kits																						
Installation Kits N/R																						
Installation Equipment(C/D)	25	79.9	31	78.3	37	82.7	50	104.6	61	123.9												
Installation Equipment(E/F)																						
Installation Equipment N/R		30.0				3.3		4.5		5.5												
Engineering Change Orders																						
Data		2.2		0.8		0.5		2.0		3.2												
Training		2.9		1.4		0.2		0.4		0.4												
Support Equipment		7.9		10.1		13.3		4.3		7.2												
ILS		15.4		11.6		7.6		13.1		9.8												
Spares																						
Other Support				0.2																		
Installation Cost																						
TOTAL PROCUREMENT		138.3		102.5		107.6		128.9		150.0												

Notes:
1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **E/F 2000 HR CORRECTION OF DISCREPANCIES (OSIP 19-01)**

MODELS OF SYSTEM AFFECTED: **F/A-18E/F** TYPE MODIFICATION: **SAFETY / RELIABILITY /IMPROVEMENT**

DESCRIPTION/JUSTIFICATION:

Corrections to discrepancies up to 2000 Flight Hours identified during testing and development can sometimes be incorporated into production aircraft, effective with the physical configuration audit which establishes the product baseline of the aircraft. However, when this cannot be done due to time constraints, retrofit of the changes into already delivered aircraft requires funding through the Aircraft Modification Program. Additionally, deficiencies discovered during fleet operations must be corrected. The unacceptable alternative to retrofitting would be multiple configurations in the fleet, which will create maintenance and supply problems, and in many cases the mission capability of the aircraft would be adversely affected as well as reduced service life. Corrections to the following items/conditions are required to meet the F/A-18 E/F transition plan and achieve planned life limits of LRIP 1-3 and FRP 1 and 2 aircraft:

TEF, AIL, & AIL Shroud Hinges, (ECP-6035 PT1)	Replace hinges on trailing edge flap, aileron and aileron shroud with redesigned hinges to prevent potential departure of flight control surfaces in flight.
Drag Angle, (ECP-6136)	Install redesigned wing drag angle to correct acoustic vibration related fatigue failures.
Idle Hinge, NLG R/H Forward Door (ECP-6032)	Retrofit redesigned hinge to restore component to its original specification.
Strut Door Attach Former @ Y520, (ECP-6057)	Replace with redesigned hinge and clevis, and install bushing into Y520 former to restore component to its original specification.
Drive Hinge, NLG R/H Forward Door, (ECP-6137)	Incorparate redesigned drive hinge to prevent potential departure of component in flight.
Y541 Fitting Repair Crack, (ECP-6111)	Splice redesigned lower appendage area into Y541 former to restore component to original specification.
ECS Primary Heat Exchanger, (ECP-6078)	Replace noncompliant heat exchanger with redesigned full life component and new ECS duct.
LEX Diverter Apex Fitting @ Y383, (ECP-6041)	Retrofit with redesigned apex fitting to restore component to its original specification.
MLG Sidebrace Pin, (ECP-6099)	Fit MLG with redesigned pin to prevent possible collapse of MLG during arrestments.
Heat Exchanger Cover (Door 55) Hole Wear, (ECP-6086)	Retrofit fasteners with steel bushings to prevent distribution of stress into fuselage components.
Outer Wing Substructure, Hinge kit & Wing Torque Box kit, (ECP-6035 PT2)	Remove noncompliant TEF and aileron hinges on wing torque box and replace with full life hinges.
Ecology Tank Flange Changes, (ECP-6100)	Incorporate redesigned ecology tank and modify mount on the door to prevent tank separation.
Center Keel Intercoaster @ Y627, (ECP-6092)	Replace component to restore aircraft to original structural integrity.
Fuel Floor Support Angle @ Y470, (ECP-6128)	Add titanium bathtub fittings and replace fuel floor to increase fuel floor land area.
Inlet Duct Stiffener, (ECP-6094)	Remove & replace with new design Inlet Duct Stiffener to correct design deficiency.
Keel Access Cover @ Y631-Y645, (ECP-6118)	Replace Keel Web with redesigned component to conform to original aircraft specification.
Upper Keel Web Stringer @ Y659, (ECP-6067)	Install doublers to restore component to its original service life.
Keel Web Fittings Aft of Y472, (ECP-6127)	Install doublers to restore component to its original service life.
Visual Identifcation System (ECP-6052)	Provide Pattern Strobe Light System and Circuit Logic Change cues to distinguish E/F from C/D at night.
AOA/PITOT Probe Circuitry Change & Boarding Ladder/Canopy Switch, (ECP-6165)	Retrofit redesigned AOA Probe Circuitry to prevent potential safety hazard and relocation of boarding ladder switch to preclude inadvertent actuation of the canopy switch, resulting in the possible closing of aircraft canopy on personnel.
Keel Web, (ECP-XXX7)	Replace Keel Web with redesigned component to conform to original aircraft specification.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Each change has been or will be tested prior to installation in the F/A-18.
Some ECPs are "O" Level Installs.

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **E/F 2000 HR CORRECTION OF DISCREPANCIES (OSIP 19-01)**

MODELS OF SYSTEM AFFECTED: **F/A-18E/F** TYPE MODIFICATION: **SAFETY /RELIABILITY/IMPROVEMENT**

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
ECP 6035PT1/ TEF, AIL, & AIL Shroud Hinges	12	3.4																				
ECP 6136 / Drag Angle	12	0.2																				
ECP 6032 / Idle Hinge, NLG R/H Forward Door	12	*																				
ECP 6057 / Strut Door Attach Former @Y520	12	0.3																				
ECP 6137 / Drive Hinge, NLG R/H Forward Door	74	0.3	36	0.1	25	0.1																
ECP 6111 / Y541 Fitting Repair Crack	79	3.1																				
ECP 6078 / ECS Primary Heat Exchanger																						
ECP 6041 / LEX Diverter Apex Fitting @Y383	12	0.3																				
ECP 6099 / MLG Sidebrace Pin	12	*																				
ECP 6086 / Heat Exchanger Cover (Door 55) Hole Wear	12	*																				
ECP 6035PT2 / Outer Wing Substructure, Hinge kit & Wing Torque Box kit	100	2.5																				
ECP 6100 / Ecology Tank Flange Changes	27	0.4																				
ECP 6092 / Center Keel Intercoaster @Y627	12	0.2																				
ECP 6128 / Fuel Floor Support Angle@Y470	72	0.8	19	0.2																		
ECP 6094 / Inlet Duct Stiffener	9	0.1																				
ECP 6118 / Keel Access Cover @Y631-Y645	62	0.5	55	0.5	19	*																
ECP 6067 / Upper Keel Web Stringer @Y659	46	0.4																				
ECP 6127 / Keel Web Fitting Aft @Y472	72	0.9	7	0.1																		
ECP 6052 / Visual Identifcation System	32	2.1																				
ECP 6165 /AOA PITOT Probe Circuitry Change & Boarding Ladder/Canopy Switch	72	0.1	36	0.1	27	0.1																
ECP XXX7 / Keel Web					36	0.2	26	0.2														
Installation Kits N/R		5.9		0.8		0.3		0.1														
Installation Equipment																						
Installation Equipment N/R																						
Engineering Change Orders																						
Data		0.9		*																		
Training Equipment																						
Support Equipment																						
ILS		0.9		0.4		0.4		0.3		0.7												
Other Support																						
Interim Contractor Support																						
Installation Cost	107	1.0	111	1.2	465	6.7	198	1.8	127	1.2												
TOTAL PROCUREMENT		24.2		3.5		7.9		2.4		1.9												

Notes:
1. Total may not add due to rounding.
2. Asterisk indicates amount less than $50K
3. Procurement unit cost for ECP 6035PT2 is dependent of Lot of aircraft being retrofit due to multiple Technical Directives.
4. Update required based on FY02 magr procurement $2,548K from OSIP 19-01.

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **F/A-18C/D DIGITAL WINGTIP MOD FOR AIM-9X COMPATIBILITY (OSIP 05-02)**

MODELS OF SYSTEM AFFECTED: **F/A-18C/D** TYPE MODIFICATION: **CAPABILITY UPGRADE**

DESCRIPTION/JUSTIFICATION:

The AIM-9X Joint Operation Document (JORD), ORD# USN-CAF (USAF 001-93)-IIA, requires a highly expanded off-boresight targeting capability that presently cannot be achieved with the current AIM-9M analog interface signal set. The JORD also requires the missile to communicate with the aircraft through a digital interface. The F/A-18 currently has a tailored MIL-STD-1760 interface on stations 2 through 8. Modifications to the outer wing panel and LAU-7 launcher can provide full digital capability to the wingtip and can support full AIM-9X capability. The current launcher support equipment (AWM-100) must also be modified to support/test this digital wingtip capability. AWM-100 are "O" level installations.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

The AIM-9X missile is on contract for LRIP 1, 2 and 3 deliveries, with the LRIP 1 delivery complete. Operational test shots have been completed and an end of test message was issued in August 2003. The AIM-9X program Milestone III (FRP) was completed 15 May 2004.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY2008		FY2009		FY2010		FY2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
F/A-18 Digital Wingtip Kits	170	0.2	40	0.1	27	*	9	*	20	*												
Installation Kits N/R	2	0.3																				
Installation Equipment																						
Installation Equipment N/R																						
Engineering Change Orders																						
Data		0.3																				
Training																						
Support Equipment		0.7																				
ILS		*		*		*		*		*												
Spares																						
Other Support - Testing																						
Installation Cost	74	0.5	107	0.6	57	0.2	32	0.2	14	0.2												
TOTAL PROCUREMENT		2.3		0.7		0.2		0.2		0.2												

Notes:
1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. 2 Validation/Verification Kits are included in Installation Kit N/R..
4. 24 Kits were provided as contractual consideration from the manufacturer.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **F/A-18C/D**

MODIFICATION TITLE: **F/A-18C/D DIGITAL WINGTIP MOD FOR AIM-9X COMPATIBILITY (OSIP 05-02)**

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **D-Level Install for Digital Wingtip Mod with Field Mod Teams, O-Level Install for AWM-100**

ADMINISTRATIVE LEAD-TIME: **2 Months**

PRODUCTION LEAD-TIME: **12 Months**

CONTRACT DATES: FY 2004: Dec-03 FY 2005: Dec-04 FY 2006: Dec-05 FY 2007: Dec-06

DELIVERY DATE: FY 2004: Dec-04 FY 2005: Dec-05 FY 2006: Dec-06 FY 2005: Dec-07

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY2006		FY2007		FY2008		FY2009		FY2010		FY2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (170) kits	74	0.5	96	0.6	12	*	12	*														
FY 2004 (40) kits			11	*	29	*																
FY 2005 (27) kits					16	0.2	11	*														
FY 2006 (9) kits							9	0.2														
FY 2007 (20) kits									14	0.2												
FY 2008 (48) kits																						
FY 2009 (21) kits																						
FY 2010 (65) kits																						
FY 2011 (0) kits																						
To Complete ( ) kits																						
TOTAL	74	0.5	107	0.6	57	0.2	32	0.2	14	0.2												

1. 24 Kits were provided as contractual consideration from the manufacturer.

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY2006				FY2007			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	74	24	26	25	32	23	0	16	18	6	6	7	13	3	3	3	5
Out	74	24	26	25	32	23	0	16	18	6	6	7	13	3	3	3	5

	FY2008				FY2009				FY2010				FY2011				To Complete	TOTAL
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In																		
Out																		

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **C/D TRAINING SYSTEM (OSIP 06-02)**

MODELS OF SYSTEM AFFECTED: **F/A-18C/D** TYPE MODIFICATION: **TRAINERS UPGRADE**

DESCRIPTION/JUSTIFICATION:

F/A-18C/D training funds will be used to meet current Fleet Readiness Squadron (FRS) requirements by purchasing new components and software to prevent obsolescence of the various trainers as F/A-18C/D aircraft are modified for capability enhancement and service life extension. Funding will also be used to update courseware and computer based training (CBT) as new capabilities are introduced to the fleet, and will enable the fleet to institute an aggressive post-FRS training environment to bring F/A-18C/D trainers into High Level Architecture (HLA) compliance.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY2007		FY2008		FY2009		FY2010		FY2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
Installation Kits N/R																						
Installation Equipment																						
Installation Equipment N/R																						
Engineering Change Orders																						
Data																						
Training		18.6		16.0		13.9		7.7		6.8												
Support Equipment																						
ILS																						
Spares																						
Other Support - Testing																						
Installation Cost																						
TOTAL PROCUREMENT		18.6		16.0		13.9		7.7		6.8												

Notes:
1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **Fast Tactical Imagery II (OSIP 15-02) FTI** TYPE MODIFICATION: **CAPABILITY IMPROVEMENT**

MODELS OF SYSTEM AFFECTED: **F/A-18C/DE/F**

DESCRIPTION/JUSTIFICATION:

FTI provides the aircrew the capability to link video imagery and targeting coordinates from aircraft to aircraft at limited cost. This capability is currently being used by the F-14 to transmit critical targeting imagery and coordinates from aircraft to aircraft. This Congressionally added funding would be used to fully qualify the FTI capability on the F/A-18, and to provide this critical warfighting capability to the Fleet as F-14s are being retired from carriers. The Fleet completed a successful demonstration of the FTI capability on the F/A-18C aircraft last year, and thus, this effort is considered low risk.

Tactical imagery continues to be critical to ongoing conflicts. FTI provides the capability to transmit this imagery from aircraft to aircraft, or to a ground receiving station. This allows quick and easy dissemination of imagery to aircraft or ground stations after it is collected. This also provides the fleet the capability to target mobile targets. Without FTI on F/A-18 aircraft, the Battle Group Commander lost this critical capability in FY03 when F-14s left the Fleet. As such, his ability to transmit and disseminate imagery, and to target mobile targets were severely diminished. A fiscal year 2004 Congressional Add for $1.0M provides for procurement and installation for one (1) F/A-18 squadron.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Deliver Preproduction Units(3)	Sep 30 2002
Complete Carrier Qual Testing	Dec 30 2002

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E (0204136N/E2065)																						
PROCUREMENT																						
Installation Kits	3	2.1	12	0.4																		
Installation Kits N/R																						
Installation Equipment																						
Installation Kits N/R																						
Installation Equipment N/R																						
Engineering Change Orders				0.1																		
Data																						
Training Equipment																						
Support Equipment				0.1																		
ILS																						
Other Support		0.4		0.2																		
Interim Contractor Support																						
Installation Cost			12	0.2																		
TOTAL PROCUREMENT		2.5		1.0																		

Notes:
1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. FY04 installs are funded with FY 2004 Congressional Add funding.

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **E/F 4000 HR CORRECTION OF DISCREPANCIES (OSIP 12-03)**

MODELS OF SYSTEM AFFECTED: **F/A-18E/F** TYPE MODIFICATION: **SAFETY /RELIABILITY/IMPROVEMENT**

DESCRIPTION/JUSTIFICATION:

Corrections to discrepancies up to 4000 Flight Hours identified during testing and development can sometimes be incorporated into production aircraft, effective with the physical configuration audit which establishes the product baseline of the aircraft. However, when this cannot be done due to time constraints, retrofit of the changes into already delivered aircraft requires funding through the Aircraft Modification Program. Additionally, deficiencies discovered during fleet operations must be corrected. The unacceptable alternative to retrofitting would be multiple configurations in the fleet, which will create maintenance and supply problems, and in many cases the mission capability of the aircraft would be adversely affected as well as reduced service life. Corrections to the following items/conditions are required to meet transition plan and achieve planned life limits of LRIP II / III and FRP I/II aircraft.

LEX Cracks Redesign, (ECP-6126)	Replace 50% of intermediate Spar; add bathtub fittings 4 locations; replace rib to restore aircraft to design life
Bootstrap at Several Locations (After Interim Fix), (ECP-6029)	Replace bootstrap and Y645 Outboard Former with redesigned components to meet specification life
Dorsal Cover (Door 40) Hole Elongation, (ECP-6085)	Incorporate redesigned door to prevent potential departure of component in flight
Door 317 Hole Elongation, (ECP-6120)	Incorporate redesigned door to prevent potential departure of component in flight
Side Longeron Web @ Y510 (ECP-6129)	Remove and replace Longeron Web with thicker web to restore component to its original specification.
Aft Fuselage Inboard Former Crack @Y618, (ECP-6135)	Replace stringer, upper / lower keel webs and stiffener to restore aircraft to original structural integrity
LEX Doors – Upper Center & Aft, (ECP-6009)	Install door with thicker lands and thicker hat stiffeners end to correct acoustic vibration related fatigue
Lower Outboard Longeron @ Y555, (ECP-6141)	Cold work nutplate holes and add clip to correct design deficiency
Inlet Duct Stiffener @Y568, (ECP-6143)	Installation of a structural clip to the shroud in order to prevent buckling
Y472.5 Blkd Fatigue Crks @ MLG Trunion, (ECP-6157)	Blend bulkhead to prevent distribution of stress into components. (Installation costs only)
Missile Launcher Bay Clost Out Web, (ECP-6142)	Install doublers to restore component to its original service life
Lower Outboard Longeron Cracks, (ECP-6138)	Brings sturcture back to original specification by adding a doubler to the structure

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Each change has been or will be tested prior to installation in the F/A-18.
Some ECPs are "O" Level Installs

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **E/F 4000 HR CORRECTION OF DISCREPANCIES (OSIP 12-03)**

MODELS OF SYSTEM AFFECTED: **F/A-18E/F** TYPE MODIFICATION: **SAFETY /RELIABILITY/IMPROVEMENT**

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
ECP 6126 / LEX Cracks Redesign	62	2.1	34	0.5																		
ECP 6029 / Bootstrap at Several Locations (After Interim Fix)																						
ECP 6085 / Dorsal Cover (Door 40) Hole Elongation	36	1.2	17	0.6																		
ECP 6120 / Door 317 Hole Elongation	62	0.9	17	0.3																		
ECP 6129 /Side Longeron Web @ Y510	62	*	25	*																		
ECP 6135 / Aft Fuselage Inboard Former Crack @ Y618	62	0.3	36	0.1	37	0.2																
ECP 6009 / LEX Doors Upper Center & Aft	32	0.5																				
ECP 6141 / Lower Outboard Longeron @ Y555																						
ECP 6143 / Inlet Duct Stiffener @Y568	62	0.3	27	0.2																		
ECP 6142 / Missile Launcher Bay Close Out Web			36	0.1	36	0.1	36	0.1														
ECP 6138 / Lower Outboard Longeron Cracks	62	*																				
ECP 6163/ Dissimilar Metals, Main Landing Gear Wheel Well							10	0.3														
ECP 6173/ DOOR 630 Goose Neck Hinge							36	*														
Installation Kits N/R		2.4		0.5		*		0.1														
Installation Equipment								*														
Installation Equipment N/R								*														
Engineering Change Orders																						
Data		0.3		0.1		*																
Training Equipment																						
Support Equipment																						
ILS				0.7		0.5		0.4														
Other Support																						
Interim Contractor Support																						
Installation Cost					394	2.2	170	1.4														
TOTAL PROCUREMENT		8.1		3.0		2.9		2.2														

Notes:
1. Totals may not add due to rounding.
2. Asterisk indicates amount less than $50K.
3. Total quantity of installations exceeds the "Installation Kit" procurement quantity by 82 due to ECP 6157, which does not require an "installation kit" to complete the modification.
4. ECP 6126 includes multiple airframe changes with different pricing dependent on aircraft Lot.

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **E/F 6000 HR CORRECTION OF DISCREPANCIES (OSIP 13-03)**

MODELS OF SYSTEM AFFECTED: **F/A-18E/F** TYPE MODIFICATION: **SAFETY /RELIABILITY/IMPROVEMENT**

DESCRIPTION/JUSTIFICATION:

Corrections to discrepancies up to 6000 FHs identified during testing and development can sometimes be incorporated into production aircraft, effective with the physical configuration audit which establishes the product baseline of the aircraft. However, when this cannot be done due to time constraints, retrofit of the changes into already delivered aircraft requires funding through the Aircraft Modification Program. Additionally, deficiencies discovered during fleet operations must be corrected. The unacceptable alternative to retrofitting would be multiple configurations in the fleet, which will create maintenance and supply problems, and in many cases the mission capability of the aircraft would be adversely affected as well as reduced service life. Corrections to the following items/conditions are required to meet transition plan and achieve planned life limits of LRIP II / III and FRP I / II aircraft:

Y577 Frame FInge @ Door 55, **(ECP-6154)**	Add bathtub fitting to restore aircraft to original structural integrity
12K SFH Y461 Clip Crack, **(ECP-6144)**	Replace fatigued clip with a redesigned clip to meet design life
Y591 Bulkhead Stiffner Fillet Crack, **(ECP-6160)**	Add nested fitting to restore aircraft to original structural integrity
Keel Longerons @ Y555 Former, **(ECP-6117)**	Add structural backup to former fo meet specification life
Outboard Longeron Splice Fasteners @ Y591, **(ECP-6119)**	Remove and replace splice fitting and fasteners to restore aircraft to original structural integrity
Upper Outboard Longeron @ Y631, **(ECP-6124)**	Remove and replace hi-lok fastener to restore aircraft to original structural integrity
Nacelle Skin Failed Fastener @ Y694, **(ECP-6107)**	Replace fastener with oversize fastener to correct design deficiency
Y679 Former Fasteners, **(ECP-6123)**	Replace with new material fastener to restore aircraft to original structural integrity
Y604 UOB Long, **(ECP-6134)**	Blend away material from downstanding leg to prevent distribution of stress
Missile Beam Web, Aft of Y541, **(ECP-6132)**	Add doubler to restore component to its original service life
AMAD Door 53R (Install work only), **(ECP 6169)**	Correction of possible interference condition existing between the right hand generator and a hat stiffner on the AMAD bay door 53R

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Each change has been or will be tested prior to installation in the F/A-18.

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **E/F 6000 HR CORRECTION OF DISCREPANCIES (OSIP 13-03)**

MODELS OF SYSTEM AFFECTED: **F/A-18E/F** TYPE MODIFICATION: **SAFETY /RELIABILITY/IMPROVEMENT**

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
ECP 6154 / Y577 Frame Finge @ Door 55	62	*	36	*	19	*																
ECP 6144 / 12K SFH Y461 Clip Crack	62	0.1	55	0.1	19	*																
ECP 6160 / Y591 Bulkhead Stiffner Fillet Crack	62	0.2	36	0.1	37	0.1																
ECP 6117 / Keel Longerons @Y555 Former																						
ECP 6119 / Outboard Longeron Splice Fasteners @ Y591																						
ECP 6124 / Upper Outboard Longeron @Y631																						
ECP 6107 / Nacelle Skin Failed Fastener @Y694	36	*	11	*																		
ECP 6123 / Y679 Former Fasteners	63	*																				
ECP 6134 / Y604 UOB Long																						
ECP 6132 / Missile Beam Web, Aft @Y541																						
Installation Kits N/R		0.5		0.2																		
Installation Equipment																						
Installation Equipment N/R																						
Engineering Change Orders																						
Data		0.2																				
Training Equipment																						
Support Equipment																						
ILS				0.4		0.7		0.3		0.5												
Other Support																						
Interim Contractor Support																						
Installation Cost					286	2.3	108	1.3	127	1.3												
TOTAL PROCUREMENT		1.1		0.9		3.1		1.7		1.8												

Notes:
1. Total may not add due to rounding.
2. Asterisk indicates amount less than $50K
3. "Installation Kit" procurement quantity exceeds "Installation" quantity due to 20 Validation/Verification kits.

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **E/F CORRECTION OF OPERATIONAL DISCREPANCIES (OSIP 14-03)**

MODELS OF SYSTEM AFFECTED: **F/A-18E/F** TYPE MODIFICATION: **SAFETY /RELIABILITY/IMPROVEMENT**

DESCRIPTION/JUSTIFICATION:

Corrections to operational discrepancies identified can sometimes be incorporated into production aircraft, effective with the physical configuration audit which establishes the product baseline of the aircraft. However, when this cannot be done due to time constraints, retrofit of the changes into already delivered aircraft requires funding through the Aircraft Modification Program. Additionally, deficiencies discovered during fleet operations must be corrected. The unacceptable alternative to retrofitting would be multiple configurations in the fleet, which will create maintenance and supply problems, and in many cases the mission capability of the aircraft would be adversely affected as well as reduced service life. Corrections to the following items/conditions are required to meet transition plan and achieve planned life limits of LRIP II / III and FRP I / II aircraft:

ECS Exhaust Overtemp Final Fix/Bard Stacks, **(ECP-6106R1)**	Modifies current exhaust ducts in order to reduce skin and structural temperatures caused by the ECS exhaust plume
Aft ECS Cooling Fan, **(ECP-6114)**	Strengthens ECS cooling fan to prevent and contain fan failures
FCC Processor Upgrade, **(ECP-6002)**	Replace existing FCC processor with upgraded higher order processors
MLG Door Bushing Migration, **(ECP-6104)**	Improved bushing retention for MLG Door hinge attach points
AFT Fuselage Outbd Former Fwd Flange @ Y645, **(ECP-6088)**	Repair former by adding a doubler to bring it back to original specification
MLG Trunnion Bearing Loose Retention Nut, **(ECP-6194)**	Replacing bearing retention nut with an improved retention nut
Long Stick Position, **(ECP-XXX2)**	Incorporation of improved retention mechanism in position sensor
SKIN 12 Stiffener Back-up Structure, **(ECP-6171)**	Strengthen the Centerline Structure to meet 2000 catapult requirement
AFT Fan Shutoff Valve, **(ECP-XXX5)**	Modify the Aft Fan with an Improved Shut-Off Valve
Radar Altimeter Antenna Radome Delineation, **(ECP-XXX8)**	Drill hole in door to allow escape of moisture accumulation in order to prevent corrosion of the antenna
Leading Edge Extension (LEX) Lower Surface/Structure Cracks Redesign, **(ECP-6193)**	Modifies LEX structure to prevent cracks induced from aerodynamic loads
MLG Outboard Tire Door Clevis, **(ECP-6145)**	Redesign clevis to eliminate cracking imparted during gear cycling
FT50 Y436 Inlet Former, **(ECP-6188)**	Introduces strengthened design to prevent cracking
FT50 teardown Keel Failure, **(ECP-XX11)**	Modifies Keel To Prevent Future Cracking
FT50 Teardown Bulkhead Cracking, **(ECP-XX12)**	Modifies bulkhead to prevent cracking discovered during FT50 testing
FT-50 Failure of Upper Wing Skin Splice Plate, **(ECP-6183)**	Redesigned Upper Wing Skin Splice Plate to address failures observed during fatigue testing
DOOR 49 Replacement, **(ECP-6098)**	Replace Door 49 for holes found elongated beyond spec.
Horizontal Actuator Cover-Door 71, **(ECP-6068)**	Improved fasteners to prevent deformation introduced by flight loads
MLG R/H Upper Planing Link Attach Fitting Failure, **(ECP-6196)**	Redesign existing planing link attach fittings
LEX Vent Mechanism Support Assembly Rod End Clevis Failure, **(ECP-XXX3)**	Redesign and strengthen door actuator
LDS Fuel Wash Filter, **(ECP-XX16)**	Redesign wash filter to prevent passages from becoming clogged and causing loss of cooling efficiency; impacting LCS, Hydraulic, and AMAD life- due to higher operating temps.
ECS Ejector Cracks, **(ECP-XX17)**	Modify ECS ejector to prevent cracks from being induced
MLG Door Uplock, **(ECP-XX18)**	Improves Uplock ability to overcome increased loads due to MLG Door icing
Cockpit Pressure Warning System (CPWS), **(ECP-XX19)**	Provides a warning system to identify a possible insidious cabin pressure loss that could result in crew hypoxia and possible A/C loss
DOORS 315 & 316 Elongation, **(ECP-XX20)**	Reduces the potential for hole elongation on doors 315 & 316.
HOL Follow-On Upgrades Lot 25 & Up, **(ECP-XX21)**	Mission Computer BIT performance upgrades & enhancements for aircraft with Higher Order Language (HOL)
18E Follow-On Upgrades Lot 24 & Below, **(ECP-XX22)**	Mission Computer BIT performance upgrades & enhancements for aircraft without Higher Order Language (HOL)
MLG Proximity Switches & Sidebrace Down lock Mechanism, **(ECP-6076)**	Modify down lock actuator assembly, jury link; replace lock plate & proximity switches
Fuel System Ground Pressurization Tube Water Entrapment, **(ECP-6190)**	Change manual drain valve to automatic drain valve to ensure that no water is trapped in the fuel system.
Wing Modification for Transonic Flying Qualities Improvement, **(ECP-6191)**	Modify the wing and flight control surfaces to improve the flying qualities of the aircraft when flying above the speed of sound.
Radar Bay Vent Valve Fail - MSP 862, **(ECP-6198)**	To eliminate the Radar Bay Vent Valve failures (MSP 862 code). The condition was traced to an excessive voltage drop to the valve, a result of the Radar Bay Vent Valve circuit change which incorporated Forward Avionics Fan Delay Logic.
Y679 Former Boot Strap Interface Fillet Seal Missing, **(ECP-6206)**	Retrofit will consist of applying Fillet seal/brush coating to entire edge of lower leg of Support that interfaces with "Y679" Former
ECS Cooling Duct Grounding Strap, **(ECP-6209)**	Add a grounding strap to prevent accidental static discharge to an aircraft maintainer
ARS Lighting, **(ECP-XXX23)**	Add lighting to the ARS pod to improve the visibility of the tanking aircraft during night time refueling operations
NVG Friendly NAV Lighting, **(ECP-XXX24)**	Modify cockpit lighting to be more friendly with night vision goggles (NVG)
Fatigue Testing - Bulkhead, **(ECP-XXX25)**	Correct cracks in bulkheads found during fatigue testing
Fatigue Testing - Keel Web **(ECP-XXX26)**	Correct cracks in keel webs found during fatigue testing
Fatigue Testing - Teardown, **(ECP-XXX27)**	Correct cracks in various other structural components found during teardown of various fatigue test articles
Fatigue Testing - Doors, **(ECP-XXX28)**	Correct hole elongations in doors found as a result of fatigue testing
HS1 Reservoir Chafe, **(ECP-XXX29)**	Correct chafing condition between the hydraulic reservoir and structural components of the aircraft
TEF Clip Fatigue Prevention, **(ECP-6213)**	The trailing edge flap experienced a fatigue failure during ground testing. This change incorporates improvements to the trailing edge flap to assure fatigue life requirements are met
Boarding Ladder Sensors Improvement, **(ECP-XXX30)**	Improve boarding ladder sensors to prevent incorrect stowage indications
Brake Piston Assy Redesign , **(ECP-XXX31)**	Redesign the brake piston assembly to improve reliability
Inlet Ice Detector Hardware Redesign , **(ECP-XXX32)**	Redesign the ice detector system to reduce the number of false positives
Inadequate Clearance Between APU SCV and Structure, **(ECP-6211)**	Correct chafing condition between aircraft structural material and the APU SCV to prevent damage to the aircraft structure
Wing - Fuel Probe Corrossion Protecton, **(ECP-6219)**	Add a layer of corrosion preventative between the fuel probe and its mounting to prevent galvanic corrosion between dissimilar metals

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Each change has been or will be tested prior to installation in the F/A-18.
Some ECPs are "O" Level Installs

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **E/F CORRECTION OF OPERATIONAL DISCREPANCIES (OSIP 14-03)**

MODELS OF SYSTEM AFFECTED: **F/A-18E/F** TYPE MODIFICATION: **SAFETY /RELIABILITY/IMPROVEME! SAFETY /RELIABILITY/IMPROVEMENT**

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
ECP 6106R1 / Exhaust Overtemp Final Fix/Bard Stacks	74	4.7	120	6.9	36	2.4																
ECP 6114 / Aft ECS Cooling Fan	12	0.1																				
ECP 6002 / FCC Processor Upgrade	28	1.3																				
ECP 6104 / MLG Door Bushing Migration	32	0.1																				
ECP 6088 / Aft Fuselage Outboard Former Fwd Flange @Y645				*																		
ECP 6194 / MLG Trunnion Bearing Loose Retention Nut			36	0.1	54	0.1																
ECP XXX2 / Long Stick Position Tx																						
ECP 6171 / Skin 12 Stiffner Back-up Structure	54	0.1																				
ECP-XXX5 / Aft Fan Shutoff Valve					80	0.1																
ECP XXX8 / Radar Altimeter Antenna Radome Delimination					36	0.7	26	0.5														
ECP 6193 Leading Edge Ext (LEX) Lower Surface/Structure Cracks Redesign			62	15.5	23	5.4	8	1.4														
ECP 6145 / MLG Outboard Tire Door Clevis				*																		
ECP 6188 / Y436 Inlet Former			36	0.4	36	0.4	36	0.4	36	0.4												
ECP XX11 / FT50 Teardown Keel Failure					36	0.9	26	0.7														
ECP XX12 / FT50 Teardown Bulkhead Cracking					36	0.4	36	0.4	36	0.4												
ECP 6183 / FT50 Failure of Upper Wing Skin Splice Plate					36	0.2	36	0.2	32	0.1												
ECP 6098 / DOOR 49 Replacement					12	1.6																
ECP 6068 / Horizontal Actuator Vocer Door 71			62	0.5																		
ECP 6196 / MLG R/H Upper Planing Link Attach Fitting Failure					36	*	36	*	18	*												
ECP XXX3 / LEX Vent Mechanism Support Assembly Rod end Clevis Failure			36	0.2	194	1.0																
ECP 6216 / LDS Fuel Wash Filter					36	0.2	36	0.2	36	0.2												
ECP XX17 / ECS Ejector Cracks					36	0.1	36	0.1	36	0.1												
ECP XX18 / MLG Door Uplock					36	0.1	30	0.1	30	0.1												
ECP XX19 / Cockpit Pressure Warning System (CPWS)					36	0.1	30	0.1	30	0.1												
ECP XX20 / DOORS 315 & 316 Elongation					36	*	30	*	30	*												
ECP XX21 / HOL Follow-on Upgrades Lot 25 & Up					36	0.2	30	0.2	30	0.2												
ECP XX22 / 18E Follow-on upgrades Lot 24 & Below					36	0.2	30	0.2	30	0.2												
ECP 6076 / MLG Proximity Switches & Sidebrace Downlock Mechanism					10	0.1																
ECP-6190 / Fuel System Ground Pressurization Tube Water Entrapment **ECP-6190**							36	*	36	*												
ECP-6191 / Wing Modification for Transonic Flying Qualities Improvement																						
ECP-6198 / Radar Bay Vent Valve Fail - MSP 862							36	*	36	*												
ECP-6206 / Y679 Former Boot Strap Interface Fillet Seal Missing							25	*														
ECP-6209 / ECS Cooling Duct Grounding Strap							39	0.1														
ECP-XXX23 / ARS Lighting							36	0.1	36	0.1												
ECP-XXX24 / NVG Friendly NAV Lighting							36	*	36	*												
ECP-XXX25 / Fatigue Testing - Bulkhead							36	0.1	36	0.1												
ECP-XXX26 / Fatigue Testing - Keel Web																						
ECP-XXX27 / Fatigue Testing - Teardown																						
ECP-XXX28 / Fatigue Testing - Doors							36	0.2	36	0.2												
ECP-XXX29 / HS1 Reservoir Chafe							36	*	36	*												
ECP-6213 / TEF Clip Fatigue Prevention							36	0.4	36	0.4												
ECP-XXX30 / Boarding Ladder Sensors Improvement							36	0.2	36	0.2												
ECP-XXX31 / Brake Piston Assy Redesign							2	*	36	0.1												
ECP-XXX32 / Inlet Ice Detector Hardware Redesign							2	*	36	*												
ECP-6211 / Inadequate Clearance Between APU SCV and Structure							2	*	36	0.1												
ECP-6219 / Wing - Fuel Probe Corrossion Protecton							2	*	36	0.3												
Installation Kits N/R		1.8		1.0		4.1		1.4		0.2												
Installation Equipment								1.5		1.5												
Installation Equipment N/R																						
Engineering Change Orders																						
Data		0.2		0.3		0.6		0.7		*												
Training Equipment						0.2																
Support Equipment		0.3		0.3		0.3		0.1		0.1												
ILS		9.4		0.5		3.2		2.0		3.1												
Other Support						0.2																
Interim Contractor Support																						
Installation Cost	12	0.2	41	0.7	216	11.3	410	5.6	588	7.2												
TOTAL PROCUREMENT		18.2		26.3		34.0		17.0		15.5												

Notes:
1. Total may not add due to rounding.
2. Asterisk indicates amount less than $50K
3. ECP 6194 was listed in previous budgets as ECP XXX1 / MLG Control Valve of Emerg Port Restricter.
4. ECP 6171 was listed in previous budgets as ECP XXX4 / SUU 78 Back-Up Structure.
5. ECP 6193 was listed in previous budgets as ECP XXX9 / LEX Cracks.
6. ECP 6188 was listed in previous budgets as ECP XXX10 / FT50 Teardown Longeron Repair.
7. "Installation Kit" procurement quantity exceeds "Installation" quantity due to some kits being installed at the Organizational Level.

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **MARK XIIA MODE 5 IFF (OSIP 15-03)**

MODELS OF SYSTEM AFFECTED: **VARIOUS (49 Separate T/M/S)** TYPE MODIFICATION: **CAPABILITY IMPROVEMENT**

DESCRIPTION/JUSTIFICATION:

MK XII A Mode 5 provides improved secure cooperative combat identification through IFF. MODE 5 is a product improvement which is designed to be installed through engineering changes to digital MK XII interrogators and transponders including the APX-117, APX-118, UPX-37, APX-111, and RT-1832. MODE 5 is designed to be installed in all Navy T/M/S aircraft which are currently MODE 4 IFF capable (49 T/M/S aircraft). MODE 5 is developed in cooperation with NATO. MODE 5 was designated a "JROC special interest" program in March 2001 and is interoperable across all services. ORD # 577-06-01

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

MODE 5 completed a brassboard development in December 1997. Modeling and Simulation to demonstrate interoperability was completed in February of 1998 to support NATO STANAG development. Proof of concept flight testing completed in December 1999. A Preliminary Design Review (PDR) for the proposed ECP to incorporate MODE 5 in the APX-118 was completed in July 2001. Contracts to develop a prototype Cryptographic Module and ECP kit are presently being executed.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E		10.4		11.0		10.9		5.9		14.9												
PROCUREMENT																						
Installation Kits																						
Platform Installation A-Kits																						
Installation Kits N/R																						
Installation Equipment (Note 1)																						
MODE 5 IFF HARDWARE B-KIT																						
Installation Equipment N/R																						
Engineering Change Orders																						
Data																						
Training Equipment																						
Support Equipment		0.5																				
ILS																						
Other Support				1.6																		
Interim Contractor Support																						
Installation Cost																						
TOTAL PROCUREMENT		0.5		1.6																		

Notes:
1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. FY04 funding for this OSIP resides in BLI 058200: ID Systems.

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **RESERVE SQUADRON ECP 560 OSIP 08-05**

MODELS OF SYSTEM AFFECTED: **F/A-18A** TYPE MODIFICATION: **AVIONICS UPGRADE**

DESCRIPTION/JUSTIFICATION:

Upgrade Avionics for F/A-18A Hornets (Lots 8 and 9) for the U.S. Naval Reserve Force. The Avionics Upgrade includes new avonics subsystems already incorporated or in process of being incorporated into USN/USMC and/or FMS F/A-18 aircraft. This ECP incorporates the following systems: AN/ARC-210(V) with HAVEQUICK II and SINCGARS; Digital Communications System (DCS) Receiver Transmitter (RT-1824(C)); Mission Computer CP 2360 (XN-8); Stores Management Set (SMS) (AN/AYQ-9); AMRAAM Capability (radar mod, launchers, weapons plyons and control stick); Digital Display Indicator (DDI) Upgrade: Mission Data Loader (AN/ASQ-215): Targeting FLIR provisions (AAS-38B). (Starting in FY2005 the following capabilities will add: MIDS LVT, Color Displays, JHMCS, ALE-47, TAMMAC and AMU).

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

ECP 560 was approved in March 1998. All the equipment being incorporated in this ECP has completed development.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
ECP 560					4	1.6	3	1.0														
Installation Kits N/R																						
Installation Equipment					68	5.8	17	4.3														
Installation Equipment N/R																						
Engineering Change Orders																						
Data																						
Training																						
Other Support (Testing)																						
Support Equipment																						
ILS						0.5		0.8		0.4												
Interim Contractor Support																						
Installation Cost							7	1.8														
TOTAL PROCUREMENT						7.9		7.9		0.4												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **F/A-18A** MODIFICATION TITLE: **RESERVE SQUADRON ECP 560 OSIP 08-05**

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **ONE KIT INSTALLED BY CONTRACTOR FOR VAL/VER, OTHER INSTALLS FIELD TEAMS**

ADMINISTRATIVE LEAD-TIME: **2 Months** PRODUCTION LEAD-TIME: **2 Months**

CONTRACT DATES: FY 2004: FY 2005: FY 2006: Dec-05 FY 2007:

DELIVERY DATE: FY 2004: FY 2005: FY 2006: Feb-05 FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2002 & PY ( ) kits *																						
FY 2002 ( ) kits																						
FY 2003 ( ) kits																						
FY 2004 ( ) kits																						
FY 2005 (4) kits											4	1.0										
FY 2006 (3) kits											3	.8										
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
To Complete ( ) kits																						
TOTAL											7	1.8										

* USMC Reserve funded 34 "A" Kits
Quantities Reflect ECP 583 and ECP 583R2
Installation Schedule

	FY 2002	FY 2002				FY 2003				FY 2004				FY 2005				FY 2006			
	& Prior	1	2	3	4	1	2	3	2	1	2	3	4	1	2	3	4	1	2	3.00	4
In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	3	0
Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	3	0

	FY 2007				FY 2008				FY 2009				To	
	1	2	3	4	1	2	3	4	1	2	3	4	Complete	TOTAL
In	0	0	0	0										
Out	0	0	0	0										

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION T **CORE AVIONICS IMPROVEMENTS / UPGRADES (OSIP 23-04)**

MODELS OF SYSTEM AFFECTED: **F/A-18A-F** TYPE MODIFICATION: **Capability and Reliability Improvements**

DESCRIPTION/JUSTIFICATION:

This OSIP is required to upgrade retrofits and improvements to various pieces of avionics equipment that have been or are being incorporated into production aircraft and to provide Mission Planning updates. Specifically for Mission Planning, the F/A-18 Unique Planning Component for JMPS, requires yearly updates to software to maintain production currency with other aircraft systems and the core mission planning equipment and software procured elsewhere within the Navy budget.
This OSIP currently includes a requirement to retrofit a Solid State Recorder (SSR) into 24 F/A-18E/F Lot 27 aircraft. This retrofit leverages non-recurring integration for production incorporation, replacing the current Cockpit Video Recording System (CVRS) recorder.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

A Mission Planning system supporting F/A-18A-F is currently fielded. A Joint Mission Planning System (JMPS) is currently in development and expected to be fielded for F/A-18A-F in fiscal year 2005. The Solid State Recorder retrofit was approved as a Congressional new start in August 2004. Validation/Verification for the SSR is planned for March 2005, with retrofit on two squadrons scheduled to begin in the fourth quarter of fiscal year 2005.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
"A" Kits E/F Solid State Recorder			24	0.5																		
INSTALLATION KITS N/R																						
Solid State Recorder				1.4																		
INSTALLATION EQUIP.																						
MP/UPC		19.8						3.5		3.8												
"B" Kits E/F Solid State Recorder			24	0.5		0.2																
INSTALLATION EQUIP. N/R																						
ENGINEERING CHANGE ORDERS																						
DATA				0.2		0.3																
TRAINING EQUIPMENT																						
SUPPORT EQUIPMENT(SE NR, PSE,SE ILS)				0.4																		
ILS																						
OTHER SUPPORT																						
INTERIM CONTRACT SUPPORT																						
Installation Cost					24	0.2																
TOTAL PROCUREMENT		19.8		3.0		0.7		3.5		3.8												

Notes:
1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. Funding for MP/UPC previously budgeted in OSIP 19-94, Common Configuration

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **F/A-18A-F** MODIFICATION TITLE: **CORE AVIONICS IMPROVEMENTS / UPGRADES (OSIP 23-04)**

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **PUBLIC/PRIVATE COMPETITION AND AT NAVAL AVIATION DEPOTS.**

ADMINISTRATIVE LEADTIME: **3 Months** PRODUCTION LEADTIME: **8 Months**

CONTRACT DATES: FY 2004: Oct-04 FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: Jun-05 FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (0) kits																						
FY 2004 (24) kits					24	0.2																
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL					24	0.2																

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	0					0	0	12	12	0	0	0	0	0	0	0	0
Out	0					0	0	12	12	0	0	0	0	0	0	0	0

	FY 2008				FY 2009				FY 2010				FY 2011				To Complete	TOTAL
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In																		
Out																		

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **Litening AT Targeting Pod (OSIP 24-04)**

MODELS OF SYSTEM AFFECTED: **F/A-18A+/D** TYPE MODIFICATION: **CAPABILITY IMPROVEMENTS**

DESCRIPTION/JUSTIFICATION:

The Litening AT Pod (AN-AAQ-28) possesses qualities essential to the Marine Corps' F/A-18A+/D's in the execution of operations within the combat spectrum providing the Marine Air Ground Task Force with crucial capabilities in the expeditionary land based environment. Litening AT Pod capabilities include: Laser /Infrared (IR) marker functionality, image data link functionality, cooperative Laser guided illumination, Laser Spot Tracker (LST), and limited weapons damage assessment capability. Northrop Grumman's Litening pod has demonstrated improved reliability and maintainability during combat operation.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Congressional New Start Notification letters dated 24 July 2003 identified the need for limited integration of the Litening Enhanced Range Forward Looking Infra Red on the F/A-18D. This interim enhanced capability provided USMC Air Ground Task Forces greater precision close-in-air support capability and overall mission flexibility in the execution of theaterr operations in the combat environment. For F/A-18A+, another set of Congressional New Start Notification letters dated 29 October 2004 for integration of the Litening Forward Looking Infrared pods on land-based F/A-18A-Cs to increase their effectiveness in the Global War on Terrorism. FY05 Congressional Add of $3.0M was added in FY05 directs the Marine Corps to fully fund the acquisition, integration, and install for the the remainder of the Litening pod AT requirement, stated to be a total of 60 pods for 72 F.A-18Ds, in the fiscal year 2006 and future budgets.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY2008		FY2009		FY2010		FY2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
A-Kit (D's)			24	0.9	49	1.9																
A-Kit (A+'s)			14	0.8																		
Installation Kits N/R		0.7		0.2																		
Installation Equipment(C/D)																						
Installation Equipment(E/F)																						
Installation Equipment N/R																						
Engineering Change Orders																						
Data				0.2		0.2																
Training						0.2																
Support Equipment																						
ILS				0.4		0.7																
Spares																						
Other Support - Testing																						
Installation Cost																						
TOTAL PROCUREMENT		0.7		2.5		3.0																

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. Procurement contract of A-Kits includes the associated installation cost.
4. FY03 and FY04 funds was realigned from ECP-583; OSIP 21-00.
5. 1 Kit will be used for Val/Ver.

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **Link 4A Replacement (OSIP 09-06)**

MODELS OF SYSTEM AFFECTED: **F/A-18A E/F/G** TYPE MODIFICATION: **AVIONICS UPGRADE**

DESCRIPTION/JUSTIFICATION:

The RT-1379A Link-4A system provides Aircraft Carrier Landing (ACL), Vectoring, and Shipboard INS (SINS) alignment capability. The basis for the RT-1379A is the RT-1250A/ARC-182 Radio which is re-furnished GFE from Rockwell Collins (RC) for a re-use program. RC re-uses 4 cards from the ARC-182 (A2, A4, A5, and A6) and builds 3 new cards (A1, A3, and A7). Boeing then purchases the re-manufactured RT-1379A from RC for the cost of the new cards, refurnishment, and unit testing, before providing it to the Navy as CFE. The RT-1379A is located in the starboard right-hand LEX position. Rockwell-Collins plans to discontinue support of the ARC-182 product line including the RT-1379A starting on 30 September 2007. The reasons for discontinuance include: an inability to procure electrical components to accomplish receiver-transmitter maintenance repairs and remanufacture; low product volume; aging test equipment; and diminishing technical expertise (late 1970s design technology).

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

The F/A-18 RT-1379A Replacement Program was initiated by a formal PMA-265 Diminishing Manufacturing Sources Review Board (DMSRB) decision on 12 December 2003, which approved the selection of the RT-1824(C) Digital Communications System (DCS) Radio as the replacement candidate for this effort. The replacement program is scheduled to be introduced with Lot 30 E/F/G aircraft, and is dependent on the H4E System Configuration Set (SCS) Block Operational Flight Program schedule, and is anticipated to have a Fall 2007 Fleet release. A 4-5 year retrofit program will commence one year later

FIN/

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
APN 202																						
RT-1379A																						
RT-1379A "A" Kits																						
Installation Kits N/R																						
Installation Equipment								4.5		4.7												
Installation Equipment N/R																						
Engineering Change Orders																						
Data																						
Training																						
Other Support (Testing)																						
Support Equipment																						
ILS																						
Interim Contractor Support																						
Installation Cost																						
TOTAL PROCUREMENT								4.5		4.7												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **F/A-18A E/F/G** MODIFICATION TITLE: **Link 4A Replacement (OSIP 09-06)**

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **ONE KIT INSTALLED BY CONTRACTOR FOR VAL/VER, OTHER INSTALLS FIELD TEAMS**

ADMINISTRATIVE LEAD-TIME: **Months** PRODUCTION LEAD-TIME: **Months**

CONTRACT DATES: FY 2004: FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2002 & PY ( ) kits *																						
FY 2002 ( ) kits																						
FY 2003 ( ) kits																						
FY 2004 ( ) kits																						
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 () kits																						
FY 2008 (50) kits																						
FY 2009 (36) kits																						
FY 2010 (80 kits																						
FY 2011 (12) kits																						
To Complete (30) kits																						
TOTAL																						

Installation Schedule

	FY 2002 & Prior	FY 2002				FY 2003				FY 2004				FY 2005				FY 2006			
		1	2	3	4	1	2	3	2	1	2	3	4	1	2	3	4	1	2	3.00	4
In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				To Complete	TOTAL
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In	0	0	0	0																		
Out	0	0	0	0																		

CLASSIFICATION: UNCLASSIFIED

Exhibit P-40, BUDGET ITEM JUSTIFICATION

DATE: **February 2005**

APPROPRIATION/BUDGET ACTIVITY
Aircraft Procurement, Navy/APN-5 Aircraft Modifications

P-1 ITEM NOMENCLATURE
H-46 Series Helicopter

Program Element for Code B Items:

Other Related Program Elements

	Prior Years	ID Code	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	To Complete	Total
QTY		A										
COST (In Millions)	**553.8**	A	**99.4**	**70.9**	**55.4**	**47.4**	**6.5**					**833.3**

This line item funds modifications to the H-46 aircraft. The H-46 is a twin-turbine powered dual-piloted tandem-rotor helicopter. The cabin contains provisions for accommodating 25 troops and crew members. The cabin also contains an integral cargo and rescue system. The overall goal of the modification budget in FY2006 is to keep the H-46 a viable platform until a replacement aircraft can be fielded by upgrading flight critical dynamic components, the engine control system, the electrical system, and the T58-16 engine; installing on-board vibration monitoring equipment. In addition, the existing steel plate armor is being replaced with a lighter weight armor to increase , payload,light weight cockpit seats are being procured to increase aircraft payload. Aircraft Integrated Maintenance System is being installed to decrease operating and support costs. H-46 helicopters are used by the Marine Corps for troop transport. USMC inventory: (224) CH-46E + (6) HH-46D. (24) of the (224) CH-46E's are reserve aircraft. The Navy has retired all H-46D. Original Design Service Life was 10,000 hours. It was subsequently extended to 12,500 hours 18 Dec 1992 and 15,000 hours 16 Feb 1996. Aircraft will continue to be flown past 15,000 flight hours on an Age Exploration program.

(TOA, $ in Millions)

OSIP No.	Description	Prior Years	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	To Complete	Total
25-91	Dynamic Component Upgrade	405.0	2.1	1.4								408.5
25-97	Safety Improvement Program	24.7	11.2	1.9	3.7	2.8	1.2					45.4
28-99	Engine Control System Retrofi	38.4	6.4	2.1	0.1							47.1
29-99	Electrical System Upgrade	5.5	1.6	2.5	3.5	3.3	1.4					17.8
15-01	T58 Engine Reliability Improv	75.4	69.0	55.9	41.1	40.3	3.9					285.6
10-03	Aircraft Integrated Maintenan	4.8	3.0	7.0	7.0	1.1						23.0
20-04	Lightweight Armor		6.0									6.0
Total		**553.8**	**99.4**	**70.9**	**55.4**	**47.4**	**6.5**					833.3

Note: Totals may not add due to rounding.

	H-46 Series Reserves		0.2	0.2	0.2							

Exhibit P-3a Individual Modification

MODIFICATION TITLE: Dynamic Component Upgrade (OSIP 25-91)

MODELS OF SYSTEMS AFFECTED: H-46 TYPE MODIFICATION: Safety (HONA Category A)

DESCRIPTION/JUSTIFICATION: The H-46 helicopter is nearing the end of its originally planned service life. Several dynamic components failed between 1988 and 1990 due to fatigue. Engineering Change Proposal (ECP)-556 incorporates design improvements to the critical safety items which have been identified by in-service failure and flight strain survey. The changes increase thickness of critical sections and make other specific changes to increase resistance to fatigue damage. The major components include the forward and aft rotor heads, the forward and aft transmissions, the mixbox, aft vertical rotor shaft, the swashplates, synchronizing shafts, and accessory gear box. ECP-558 changes configuration of the Aircraft Flight Control System (AFCS) which reduces flight loads on critical components. The H-46 previously used the MD-1 and AHRS gyroscopes for pitch and roll rate input to the AFCS. These gyroscopes were originally designed for indication systems only and do not provide adequate input for pitch and roll rate to the AFCS. DCU was directed by Chief of Naval Operations (CNO) letter 13100 serial 504E/OU603293 dated 30 Aug 90 and approved by ASN (RDA) by Program Management Proposal (PMP) 90-7 on 18 Jan 91.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The dynamic component fatigue testing commenced in Jan 91 and completed in Dec 97. DCU ECP-556 delivered in Dec 91, and the AFCS ECP 558 delivered in Aug 93. The DCU validation was completed in Sep 1995. The DCU flight testing started in Nov 95 and completed in May 97, and production installations are ongoing. The AFCS modification program is complete.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
ECP #556 Kit	312	213.6																				
ECP #558 Kit	315	12.6																				
XXX Kit																						
Installation Kits N/R	4	84.9																				
Installation Equipment																						
GFE		0.5																				
Installation Equipment N/R																						
Engineering Change Orders																						
Moisture Debris Covers		*																				
Wear Plate Blade Atch Fitting		0.2																				
Accessory Gearbox		1.2																				
Horizontal Hinge Pin Bearing		0.2																				
Pitch Link Assembly		0.9																				
Fuzz Burn-off		0.2																				
Data		2.0																				
Training Equipment	2	1.8																				
Support Equipment		9.3																				
ILS		0.9		0.5		0.4																
Other Support		23.4		0.4		0.4																
Interim Contractor Support		2.7																				
Installation Cost	192	50.8	71	1.2	49	0.6																
Total Procurement		**405.0**		**2.1**		**1.4**																

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **H-46 (OSIP 25-91)** MODIFICATION TITLE: Dynamic Component Upgrade (DCU) (OSIP 25-91)

INSTALLATION INFORMATION: All components will be modified at NADEP Cherry Point to DCU configuration concurrent with component overhaul/repair. Installation cost includes consumable material used during component overhaul/repair. Most DCU configuration components are installed in aircraft at O-level, except AFC-433 Parts 2 & 12, which are being installed in aircraft by depot level FMT. The quantities reflected in the tables below are aircraft installation quantities, and dollar figures in the tables include component modification, GFM, and aircraft installation.

METHOD OF IMPLEMENTATION: **Aircraft to be modified by Government Owned Contractor Operated (GOCO) Field Mod Teams**

ADMINISTRATIVE LEADTIME: N/A Months PRODUCTION LEADTIME: N/A Months

CONTRACT DATES: FY 2004: N/A FY 2005: N/A FY 2006: N/A FY 2007: N/A

DELIVERY DATE: FY 2004: N/A FY 2005: N/A FY 2006: N/A FY 2007: N/A

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits	192	50.8	71	1.2	49	0.6																
FY 2004 ( ) kits																						
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	**192**	**50.8**	**71**	**1.2**	**49**	**0.6**																

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	192	18	18	18	17	17	16	16																	
Out	174	18	18	18	18	17	17	16	16																

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: Safety Improvement Program (OSIP 25-97)

MODELS OF SYSTEMS AFFECTED: H-46 | TYPE MODIFICATION: Safety (HONA Category A)

DESCRIPTION/JUSTIFICATION: The Safety Improvement Program was directed by Chief of Naval Operations (CNO) letter 7100 serial N880F/7U660758 dated 10 Jan 97, and approved as an Abbreviated Acquisition Program (AAP) by the Program Executive Officer (PEO) on 24 Oct 97. This program contains the following Engineering Change Proposals (ECP):

1. HYDRAULIC SYSTEM UPGRADE and UTILITY HYDRAULIC SYSTEM REDESIGN: This ECP was completed in FY2000, but the fleet has experienced ongoing problems with the hydraulic system following installation of the modification. The Utility Hydraulic System Redesign will assess the overall configuration of the hydraulic system and correct deficiencies to improve system performance. This modification will be installed in 177 CH-46E aircraft (153 active + 24 reserve).
2. LOWER DUAL BOOST ACTUATOR (LDBA): The housing for the actuator is highly susceptible to stress corrosion cracking . The material wear and housing cracks have resulted in LDBA malfunction. The pilot can not control the drive direction of the helicopter, a potentially life threatening situation. This program will procure a redesigned actuator housing that eliminates the failure mode in the LDBA. This modification will be installed concurrent with Fleet Exchange (FE) repairs. This modification will be installed in 177 CH-46E aircraft (153 active + 24 reserve).
3. NIGHT VISION GOGGLE (NVG) COMPATIBLE COCKPIT and NVG COMPATIBLE COCKPIT DOME LIGHT: The NVG Compatible Cockpit ECP was completed in FY2000, but did not convert the cockpit dome light + a few other panels in the cockpit. Inadvertent activation of the cockpit dome light switch during NVG operations can result in severe degradation of NVGs, loss of outside reference, and potential loss of aircraft and personnel. This modification was installed in 65 H-46D aircraft (all active, no reserves) and is being installed in 226 CH-46E aircraft (202 active + 24 reserve).
4. RUNNING ENGINE WASH: The poor T58-16/402 engine performance is due to dirt and oil residue in the compressor section. Maintenance requires daily wash after over-shipboard operations to remove salt encrustation. Improved nozzle design better atomizes cleaning fluid, allows engine wash to be performed with the engine running, and is environmentally friendly. This program was installed in 65 H-46D aircraft (all active, no reserves) and is being installed in 224 CH-46E aircraft (200 active + 24 reserve).
5. SLIDING RESCUE HATCH (HELL HOLE DOOR): This ECP is complete.
6. ALQ-157 INFRARED COUNTERMEASURES (IRCM): This ECP is an Aircraft Survivability Equipment (ASE) modification to improve aircraft operation/maintainability/survivability in combat operations. Operation Iraqi Freedom (OIF) after action reports indicated the reliability and maintainability (R&M) of the IRCM system was not sufficient to support sustained combat operations. The Original Equipment Manufacturer (OEM) designed a R&M improvement for Foreign Military Service (FMS) users that is being installed on CH-46E helicopters. This improvement will be installed in 196 CH-46E aircraft in support of OIF II.
7. AN/ALE-47 COUNTERMEASURES DISPENSING SYSTEM (CMDS): This ECP is an Aircraft Survivability Equipment (ASE) modification to improve aircraft operation/maintainability/survivability in combat operations. This safety improvement upgrades the AN/ALE-39 (CMDS) . It improves the reliability, reduces fleet operational cost and enhances the ASE capabilities of the CH-46E aircraft operating in hostile environments by addressing the problems of "Things Falling Off Aircraft" (TFOA) and uncommanded dispensing of countermeasures. This improvement will be installed in 196 CH-46E aircraft in support of OIF II.
8. AN/AAR-47(V)2 MISSILE WARNING SET INSTALLATION: This ECP is an Aircraft Survivability Equipment (ASE) modification to improve aircraft operation/maintainability/survivability in combat operations. The current system has a high false alarm rate resulting in premature flare launch. The modification will improve reliability in missile protection by reducing the false alarm rate which in turn will conserve flares. This improvement will be installed in 196 CH-46E aircraft in in support of OIF II.
9. HH-46E SEARCH AND RESCUE (SAR) CONVERSION: All Navy H-46Ds are being retired leaving the Marine Corp as the sole operator of the H-46D Type-Model-Series (TMS). The high flight hours on the HH-46Ds airframes, poor engine reliability and obsolescence issues makes this aircraft difficult and expensive to operate and maintain. This ECP will convert 3 CH-46E helicopters to the HH-46E configuration to perform the SAR mission, and will permit retirement of the H-46D TMS.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

1. UTILITY HYDRAULIC SYSTEM REDESIGN: The nonrecurring engineering is in work. Validation & testing are complete and production installation concurrent with SDLM in FY2005.
2. LOWER DUAL BOOST ACTUATOR: The LDBA manifold has been redesigned & qualified, and procurement of improved manifolds is ongoing.
3. NVG COMPATIBLE COCKPIT DOME LIGHT: Design of NVG compatible lighting is complete. Kit deliveries began 2nd QTR FY2004, with O-level installs ongoing.
4. T58-16/402 RUNNING ENGINE WASH: The H-46D model ECP was approved in Nov 97, and the CH-46E model ECP was approved in Dec 1997. Kit installations were originally planned to be at O-Level. However, significant problems were encountered installing and operating the wash system, so the H-46 FST re-designed the modification and submitted a new ECP that was approved in May 2000. The revised modification installs an airframe modification kit at the D-level. H-46D installs are complete and production installs are ongoing for the CH-46E. This ECP is being installed concurrent with the H-46 Engine Control System Retrofit (OSIP 28-99).
5. SLIDING RESCUE HATCH (HELL HOLE DOOR): This upgrade is complete.
6. ALQ-157 INFRARED COUNTERMEASURES (IRCM): This ECP was approved 16 Jan 2004. Kit deliveries began Apr 2004, with "O" level installs ongoing.
7. AN/ALE-47 COUNTERMEASURES DISPENSING SYSTEM (CMDS): This ECP was approved 26 Feb 2004. Kits are delivering and Depot installs are ongoing.
8. AN/AAR-47(V)2 MISSILE WARNING SET INSTALLATION: This ECP was approved 26 Feb 2004. Kits are delivering and installs are ongoing.
9. HH-46E SEARCH AND RESCUE (SAR) CONVERSION: This program is scheduled to begin in FY2006.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
Hydraulic System Upgrade (D)	81	1.1																				
Hydraulic System Upgrade (E)	229	3.3																				
Utility Hydraulic Sys Redesign (E)			37	0.7	35	0.6	55	1.0	50	1.0												
Lower Dual Boost Actuator (E)			37	0.3	35	0.3	55	0.5	50	0.4												
NVG Compatible Cockpit (D)	81	3.0																				
NVG Cockpit Dome Light (D/E)			291	0.2																		
T58 Running Engine Wash																						
PPC-165 (D Engine)	81	0.1																				
AFC-477 (D Aircraft)	65	0.1																				
PPC-165 (E Engine)	687	0.8																				
AFC-492 (E Aircraft)	224	0.5																				
Sliding Rescue Hatch (D&E)	66	0.8																				
Aircraft Survivability Equipment																						
ALQ-157	88	4.6	108	4.7																		
AN/ALE-47 (E)	120	0.5	76	0.3																		
AAR-47	120	0.1	76	*																		
HH-46E SAR Conversion							3	0.2														
Installation Kits N/R		1.6		0.4				0.6														
Installation Equipment																						
XXX Equip																						
Installation Equipment N/R																						
Engineering Change Orders																						
ALQ-157 Power Interrupt				1.0																		
XXX Equip ECO XXX																						
Data		0.4		0.4				0.2														
Training Equipment	9	0.6	4	*																		
Support Equipment		*						0.1														
ILS		0.3		0.4		0.2		0.1														
Other Support		1.6		0.7		0.3		0.3		0.3												
Interim Contractor Support																						
Installation Cost	678	5.1	240	2.1	99	0.5	36	0.6	57	1.1												
Total Procurement		**24.7**		**11.2**		**1.9**		**3.7**		**2.8**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **H-46 (OSIP 25-97)**

MODIFICATION TITLE: Safety Improvement Program (Running Engine Wash modification)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Government Owned Contractor Operated (GOCO) Field Mod Team (FMT)**

ADMINISTRATIVE LEADTIME: N/A Months

PRODUCTION LEADTIME: N/A Months

CONTRACT DATES: FY 2004: N/A FY 2005: N/A FY 2006: N/A FY 2007: N/A

DELIVERY DATE: FY 2004: N/A FY 2005: N/A FY 2006: N/A FY 2007: N/A

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits	188	0.6	104	0.3																		
FY 2004 ( ) kits																						
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	**188**	**0.6**	**104**	**0.3**																		

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	188	26	26	26	26																				
Out	174	14	26	26	26	26																			

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **CH-46E (OSIP 25-97)**

MODIFICATION TITLE: Safety Improvement Program (Utility Hydraulic System Redesign & Lower Dual Boost Actuator Modifications)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Government Owned Contractor Operated (GOCO) Field Mod Team (FMT)**

ADMINISTRATIVE LEADTIME: 3 Months

PRODUCTION LEADTIME: 9 Months

CONTRACT DATES: FY 2004: Aug-04 FY 2005: Dec-04 FY 2006: Dec-05 FY 2007: Dec-06

DELIVERY DATE: FY 2004: May-05 FY 2005: Sep-05 FY 2006: Sep-06 FY 2007: Sep-07

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits																						
FY 2004 ( ) kits					39	0.5																
FY 2005 ( ) kits							35	0.5														
FY 2006 ( ) kits									55	0.8												
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL					**39**	**0.5**	**35**	**0.5**	**55**	**0.8**												

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In								19	20	8	9	9	9	13	14	14	14								
Out									19	20	8	9	9	9	13	14	14								

	FY 2010				FY 2011				To	Total
	1	2	3	4	1	2	3	4	Complete	
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **CH-46E (OSIP 25-97)**

MODIFICATION TITLE: Safety Improvement Program (AN/ALE-47 Countermeasures Dispensing System (CMDS))

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Government Owned Contractor Operated (GOCO) Field Mod Team (FMT)**

ADMINISTRATIVE LEADTIME: N/A Months

PRODUCTION LEADTIME: N/A Months

CONTRACT DATES: FY 2004: Jul-04 FY 2005: N/A FY 2006: N/A FY 2007: N/A

DELIVERY DATE: FY 2004: Jul-04 FY 2005: N/A FY 2006: N/A FY 2007: N/A

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits		2.4	120	0.2																		
FY 2004 ( ) kits			16	1.5	60																	
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL		**2.4**	**136**	**1.8**	**60**																	

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In			36	48	52	60																			
Out				36	48	52	60																			

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **CH-46E (OSIP 25-97)**

MODIFICATION TITLE: HH-46E Search and Rescue (SAR) Conversion

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Aircraft to modified at Naval Air Depot, Cherry Point concurrent with Standard Depot Level Maintenance**

ADMINISTRATIVE LEADTIME: 8 Months

PRODUCTION LEADTIME: 3 Months

CONTRACT DATES: FY 2004: N/A FY 2005: N/A FY 2006: Jun-06 FY 2007: N/A

DELIVERY DATE: FY 2004: N/A FY 2005: N/A FY 2006: Sep-06 FY 2007: N/A

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits																						
FY 2004 ( ) kits																						
FY 2005 ( ) kits																						
FY 2006 ( ) kits							1	0.1	2	0.3												
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL							**1**	**0.1**	**2**	**0.3**												

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In													1		1		1								
Out															1	1	1								

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: Engine Control System (ECS) Retrofit (OSIP 28-99)

MODELS OF SYSTEMS AFFECTED: H-46 | TYPE MODIFICATION: Safety (HONA Category A)

DESCRIPTION/JUSTIFICATION: The current H-46 Engine Condition Control System (ECCS) has several failure modes which cause engines to shut down in flight; this presents a significant safety hazard to the fleet. Three bulletins have been issued by NAVAIR to inspect for system deficiencies. A formal system safety analysis utilizing historical failure data defines this as a Category One hazard and predicts six to seven failures per year. In the three and a half years before this upgrade was initiated there were 35 hazard reports (HAZREPs) issued documenting this failure mode, and it is estimated that 20 more occurred which were not reported through the HAZREP system. The aircraft has a limited single engine operating envelope and is vulnerable to engine failure while flying and hovering over water. There have been five aircraft lost at sea in which pilots reported engine failure as the cause of the mishap. The aircraft were not recovered, and therefore, the specific engine failure mode could not be determined, but it is likely that ECCS caused some of the engine failures and ultimately led to the loss of aircraft. The proposed solution to this safety problem is to convert to an alternative Engine Control System (ECS) utilized by the commercial variant of the H-46. The proposed ECS will eliminate the safety failure modes, has a proven track record, needs only slight modification for military use, increases reliability, and will increase aircraft capability through increased engine responsiveness. Implementation will require configuration changes to the airframe and the engine. This is an urgent safety issue that must be resolved to eliminate future loss of crew and aircraft. This modification was installed on 65 H-46D aircraft (all active); and is being installed on 226 CH-46E aircraft (202 active + 24 reserve).

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The contract for Proof of Concept, validation and verification (val/ver) kits for this Non-Development Item (NDI) was awarded May 1999, and the Engineering Change Proposal (ECP) was approved Jun 2000. Validation installation for D-model was completed 2nd quarter FY2001, followed immediately by Electromagnetic Interface (EMI) testing and Verification installation in 3rd quarter FY2001. Production installations in Navy D-models are complete. The CH-46E validation/verification installation and Electromagnetic Compatibility (EMC) testing are complete, and production E-model installations are in process.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
A-Kit D-Model Airframe Kit	63	0.4																				
A-Kit E-Model Airframe Kit	193	2.3	32	0.3																		
B-Kit D&E-Model Airframe Kit	208	12.4	32	1.8																		
B-Kit (RILOP)			16	*	26	*																
Overspeed Kit (D/E-Model)	512	2.3	64	0.1																		
QEC-3 (D-Aircraft)	130	0.5																				
QEC-4 (E-Aircraft)	388	0.8	64	0.1																		
Fuel Line Assy Kit (D-Aircraft)	63	0.1																				
Fuel Priming System (D-Aircraft)		0.1																				
XXX Kit																						
XXX Kit																						
Installation Kits N/R	3	4.8																				
Installation Equipment																						
Control Boxes	79	0.3																				
Engine Condition Actuator																						
Installation Equipment N/R																						
Engineering Change Orders																						
Actuator Mod		0.2																				
Ignitor Circuit		0.4																				
Data		1.0		0.1		*																
Training Equipment	8	0.5																				
Support Equipment		0.5																				
ILS		1.3		0.3																		
Other Support		4.2		1.0		0.3		0.1														
Interim Contractor Support																						
Installation Cost	189	6.3	72	2.8	32	1.7																
Total Procurement		**38.4**		**6.4**		**2.1**		**0.1**														

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **H46 (OSIP 28-99)**

MODIFICATION TITLE: Engine Control System Retrofit

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Government Owned Contracted (GOCO) Field Mod Team**

ADMINISTRATIVE LEADTIME: 1 Months

PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2004: Nov-03 FY 2005: N/A FY 2006: N/A FY 2007: N/A

DELIVERY DATE: FY 2004: May-04 FY 2005: N/A FY 2006: N/A FY 2007: N/A

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits	189	6.3	72	2.8																		
FY 2004 ( ) kits					32	1.7																
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	**189**	**6.3**	**72**	**2.8**	**32**	**1.7**																

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	189	18	18	18	18	16	16																		
Out	171	18	18	18	18	18	16	16																	

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a — Individual Modification

MODIFICATION TITLE: Electrical System Upgrade (OSIP 29-99)

MODELS OF SYSTEMS AFFECTED: CH-46E

TYPE MODIFICATION: Safety (HONA Category A)

DESCRIPTION/JUSTIFICATION: This program contains the following Engineering Change Proposals:
1. GENERATOR CONTROL UNIT: The power generation system was the cause of ten hazard reports (HAZREP) in the three years before this upgrade was initiated. The causal factor has been traced back to the generators and the voltage control system. Two incidents resulted in dual generator failure, and seven incidents resulted in aircraft smoking/fires. (One of those fires was caused by flammable fluid ingestion into the generator that turned a hydraulic leak into a massive fire that consumed the entire aircraft in a Class A mishap.) A formal system safety analysis utilizing historical failure data defines this hazard as a potential Category One hazard and predicts two to three failures per year. This is an urgent safety problem that must be alleviated to eliminate loss of life and aircraft. The proposed solution is to modify the power generation system to eliminate the safety problem, provide cleaner power to sensitive avionics components, and improve performance of the generator to meet the power demand for future electrical installation in the aircraft. This modification will be installed in 224 CH-46E aircraft (200 active + 24 reserve).
2. GENERATOR UPGRADE: The aircraft generator has been identified by NAVAIRSYSCOM System Safety Office as having a Hazard Risk Index of 6 to 8. Generator failures compounded with hydraulic fluid leakage / misting, chafing, and failed lines, pose an in-flight fire hazard. Procuring lightweight modern generators is expected to pmitigate this safety hazard and save approximately 40 pounds for the CH-46E. This modification will be installed in 136 CH-46E aircraft (112 active + 24 reserve).

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:
1. GENERATOR CONTROL UNIT: The contract for development and qualification of a new generator control panel awarded in Jun 2000. Preliminary Design Reviews (PDR) have been completed as well as breadboard and bench testing. Validation / Verification installations and environmental testing are complete. Production modification kit deliveries began in Sep 2002, and installations are ongoing.
2. GENERATOR UPGRADE: This modification is programmed to begin in FY2005.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
Generator Mod Kit					15	0.8	55	2.4	50	2.2												
Wiring Kit					15	*	55	0.1	50	0.1												
XXX Kit																						
Installation Kits N/R		0.7				1.0		0.1														
Installation Equipment																						
Main Generator Ctrl Unit (GCU)	246	0.7	192	0.5																		
Auxiliary Power GCU	123	0.3	103	0.4																		
Generator						0.2		0.1														
Installation Equipment N/R	6	0.8																				
Engineering Change Orders																						
XXX Kit ECO XXX																						
XXX Equip ECO XXX																						
Data								0.1		0.1												
Training Equipment	6	0.6																				
Support Equipment																						
ILS		0.7		0.3		0.3		0.2		0.2												
Other Support		1.7		0.4		0.3		0.5		0.2												
Interim Contractor Support																						
Installation Cost							25	0.3	55	0.5												
Total Procurement		**5.5**		**1.6**		**2.5**		**3.5**		**3.3**												

Notes:
1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **CH-46E (OSIP 29-99)**

MODIFICATION TITLE: Electrical System Upgrade (Generator Upgrade)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **To be installed concurrent with SDLM/IMC at NADEP, Cherry Point**

ADMINISTRATIVE LEADTIME: 1 Months

PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2004: N/A FY 2005: Jun-05 FY 2006: Nov-05 FY 2007: Nov-06

DELIVERY DATE: FY 2004: N/A FY 2005: Dec-05 FY 2006: May-06 FY 2007: May-07

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits																						
FY 2004 ( ) kits																						
FY 2005 ( ) kits							15	0.2														
FY 2006 ( ) kits							10	0.1	45	0.4												
FY 2007 ( ) kits									10	0.1												
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL							**25**	**0.3**	**55**	**0.5**												

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In											8	8	9	13	14	14	14								
Out												8	8	9	13	14	14								

	FY 2010				FY 2011				To	Total
	1	2	3	4	1	2	3	4	Complete	
In										
Out										

Exhibit P-3a Individual Modification

MODIFICATION TITLE: T58 Engine Reliability Improvement Program (ERIP) (OSIP 15-01)

MODELS OF SYSTEMS AFFECTED: CH-46E TYPE MODIFICATION: Safety (HONA Category A)

DESCRIPTION/JUSTIFICATION: T58-GE-16 reliability and performance trends were unacceptable prior to 2001 and were severely impacting Fleet safety, readiness and war fighting capability. Without corrective action, the T58-GE-16 Mean Time Between Repairs (MTBR) was projected to fall below 320 hours by FY2002 and would require 309 major repairs per year. The NAVAIR System Safety Team determined that the Hazard Risk Index (HRI) for the T58-GE-16 was "IIC" (critical, occasional) and trending towards "IIB" (critical, probable). The CH-46E Helicopter must be logistically supported until at least 2015; however, T58-GE-16 support costs were being driven to unaffordable levels. This program will drastically improve Fleet operating safety and readiness, while providing tremendous reductions in maintenance man-hours and Operations & Support (O&S) costs. Funds support production and procurement of a T58-GE-16 engine core or "Gas Path," depot overhaul of key engine accessories, incorporation of all approved engine Component Improvement Program (CIP) changes, and depot final assembly of manufacturer delivered "Gas Path" with accessory components. This program is projected to restore a 900-hour (MTBR), improve performance to the original power specification, and reduce the major engine repairs per year to 70 in FY2006. This modification will be installed in 223 aircraft (199 active + 24 reserve).

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Congress approved $3M plus-up in FY2001 for risk mitigation, prototypes, and non-recurring engineering; the contract for these efforts awarded in Jan 2001. The prototype engine gas path modules were delivered in Apr 2002, and the engine prototypes were completed in Jul 2002. A Low Rate Initial Production (LRIP) contract was awarded in Aug 2002, and gas path module deliveries started in Oct 2003 with the first ERIP configuration units fielded to the fleet in Mar 2003. Approval for Full Rate Production (FRP) was granted and the first production lot was ordered Mar 2003. Initial Operational Capability (IOC) was reached in Dec 2003 and installations are ongoing.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
Gas Path Module Kit	107	53.5	128	59.7	86	38.7	63	28.1	62	28.2												
Accessory Kit	142	1.2	138	1.1	44	0.4	63	0.5	62	0.5												
T-5 Harness Kit	20	*																				
Installation Kits N/R	3	7.4																				
Installation Equipment																						
XXX Equip																						
Installation Equipment N/R																						
Engineering Change Orders																						
Preplanned Product Improvement																						
Erosion Blade Coating NRE				0.4																		
Erosion Blade Coat Prod Cut-In					86	3.9	63	2.9	62	3.0												
Erosion Blade Coat Retrofit Kits					77	4.9	82	5.4	79	5.3												
Data		0.9		0.1		0.6																
Training Equipment		0.2		1.1		0.8																
Support Equipment	3	4.7	5	2.3		1.3																
ILS				0.2		0.2		0.2		0.2												
Other Support		4.9		2.4		4.1		3.6		3.1												
Interim Contractor Support																						
Installation Cost	17	2.7	21	1.9	4	1.0	1	0.4														
Total Procurement		**75.4**		**69.0**		**55.9**		**41.1**		**40.3**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **CH-46E (T58-GE-16 Engine)**

MODIFICATION TITLE: (Engine Modification)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Modify engine and engine accessories concurrent with repair at NADEP, Cherry Point**

ADMINISTRATIVE LEADTIME: 1 Months

PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2004: Dec-03 FY 2005: Nov-04 FY 2006: Nov-05 FY 2007: Nov-06

DELIVERY DATE: FY 2004: Mar-04 FY 2005: May-05 FY 2006: May-06 FY 2007: May-07

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits	17	2.8	21	1.9																		
FY 2004 ( ) kits					4	1.0	1	0.4														
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	**17**	**2.7**	**21**	**1.9**	**4**	**1.0**	**1**	**0.4**														

Note: Installation funding includes: Modification of (1) prototype T58-16A engine and (16) accessory shipsets in prior years; mod of (18) accessory shipsets and (3) test cells in FY04; mod of (4) test cells in FY05; and mod of (1) test cell in FY06.

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	17	4	5	6	6	1	1	1	1	1															
Out	13	4	4	5	6	6	1	1	1	1	1														

	FY 2010				FY 2011				To	Total
	1	2	3	4	1	2	3	4	Complete	
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: Aircraft Integrated Maintenance System (AIMS) (OSIP 10-03)

MODELS OF SYSTEMS AFFECTED: CH-46E | TYPE MODIFICATION: R&M (HONA Category B)

DESCRIPTION/JUSTIFICATION: AIMS is a Commercial Off The Shelf (COTS) vibration monitoring system to be permanently installed in the aircraft. AIMS is a comprehensive set of aircraft monitoring hardware and support software. The purpose of the system is to build support equipment functions into the aircraft as a permanent installation. Thus, AIMS will eliminate most H-46 peculiar support equipment requirements. This equipment will provide aircrews immediate feedback on aircraft condition and engine performance, which enhances the ability to predict catastrophic failures and reduces maintenance costs. In 1997, PMA226 fielded new vibration equipment to a small sample of H-46 aircraft and implemented a 100 hour vibration monitoring check. Since implementation, vibration monitoring has been instrumental in predicting (and preventing) impending component failures. For example, vibration data was received from an aircraft that had undergone three aft transmission removals for input pinion seal leakage. Analysis of the vibration monitoring data revealed a major problem with the #2 engine. Further investigation of the engine revealed impending failure of the right angle drive bearings. Failure of the engine may have resulted in damage or loss of the aircraft. Another example is an aircraft that, while performing a 100 hour vibration check, experienced aft transmission vertical vibration levels that exceeded acceptable limits. Further investigation revealed impending failure of the electrical generator. Without vibration monitoring, the problem with the generator would have gone undetected until catastrophic failure. Failure of the generator may have resulted in an electrical fire and/or collateral damage to the aircraft. This modification will be installed in 154 aircraft (130 active + 24 reserve).

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Contracts to integrate the COTS into the H-46 aircraft, design an installation kit, modify Control Data Navigation Unit (CDNU) software, and prepare technical data were awarded in Jun 2003. Prototype kits delivered in Feb 2004, the hardware Critical Design Review (CDR) was held in July 2004, and the software CDR was scheduled for August 2004. The first production lot was scheduled to be ordered in Aug 2004, with delivery scheduled for Jan 2005. Production installations are scheduled to begin in 2nd quarter FY 2005.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
A-Kit			15	1.0	68	4.4	67	4.3														
XXX Kit																						
XXX Kit																						
Installation Kits N/R	4	3.9																				
Installation Equipment																						
XXX Equip																						
Installation Equipment N/R																						
Engineering Change Orders																						
XXX Kit ECO XXX																						
XXX Equip ECO XXX																						
Data				0.4		0.6		0.1														
Training Equipment			2	0.1		*		*														
Support Equipment			8	0.1	34	0.3	34	0.3														
ILS						0.1		0.2														
Other Support		0.9		1.2		0.7		0.7		0.3												
Interim Contractor Support																						
Installation Cost			4	0.2	44	1.0	71	1.5	37	0.8												
Total Procurement		**4.8**		**3.0**		**7.0**		**7.0**		**1.1**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **CH-46E (OSIP 10-03)**

MODIFICATION TITLE: Aircraft Integrated Maintenance System (AIMS)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Government Owned Contracted (GOCO) Field Mod Team**

ADMINISTRATIVE LEADTIME: Varies Months

PRODUCTION LEADTIME: Varies Months

CONTRACT DATES: FY 2004: Aug-04 FY 2005: Nov-04 FY 2006: Nov-05 FY 2007: N/A

DELIVERY DATE: FY 2004: Jan-05 FY 2005: May-05 FY 2006: May-06 FY 2007: N/A

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits			4	0.2																		
FY 2004 ( ) kits					17	0.4																
FY 2005 ( ) kits					27	0.6	41	0.9														
FY 2006 ( ) kits							30	0.6	37	0.8												
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL			**4**	**0.2**	**44**	**1.0**	**71**	**1.5**	**37**	**0.8**												

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In			2		2		10	17	17	17	18	18	18	18	19										
Out				2		2		10	17	17	17	18	18	18	18	19									

	FY 2010				FY 2011				To	Total
	1	2	3	4	1	2	3	4	Complete	
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: Light Weight Armor Replacement System (LWARS) {OSIP 20-04)

MODELS OF SYSTEMS AFFECTED: CH-46E | TYPE MODIFICATION: Safety (HONA Category A)

DESCRIPTION/JUSTIFICATION: The efficiency of the CH-46E to perform the medium lift assault support mission largely depends on aircraft payload. The empty weight of the aircraft has increased significantly over the aircraft's more than 40 years of service, limiting payload and range, and degrading mission performance. The CH-46E aircraft has engine protective metallic armor plates on the aft pylon and around the flight control closet that are capable of protecting the aircraft from small arms fire (.30 cal; 7.62 mm round). Non-developmental armor systems exist to replace the existing steel plate armor with a lighter weight substitute, providing the same or better ballistic protection and a 35% weight reduction from the existing armor system. Reducing the empty weight of the aircraft is an extremely viable means of restoring mission effectiveness. This mod will be installed on 147 CH-46E aircraft . This program is the result of an FY 2004 Congressional addition.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The contract awarded in June 2004 to buy prototype units with an option for production units. The prototype system is expected to deliver and undergo qualification testing in Nov 2004, with production installs scheduled for FY05. This system will be installed on 147 CH-46E aircraft by the Fleet as an Organizational Level maintenance change.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
Provision Kit			147	0.3																		
XXX Kit																						
XXX Kit																						
Installation Kits N/R				0.2																		
Installation Equipment																						
Armor Equip			147	3.7																		
Installation Equipment N/R				0.1																		
Engineering Change Orders																						
XXX Kit ECO XXX																						
XXX Equip ECO XXX																						
Data				0.1																		
Training Equipment			4	0.1																		
Support Equipment				0.1																		
ILS				0.3																		
Other Support				1.1																		
Interim Contractor Support																						
Installation Cost																						
Total Procurement				**6.0**																		

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-40, BUDGET ITEM JUSTIFICATION | DATE: **February 2005**

APPROPRIATION/BUDGET ACTIVITY: **Aircraft Procurement, Navy/APN-5 Aircraft Modifications**

P-1 ITEM NOMENCLATURE: **AH-1W Series Modifications**

Program Element for Code B Items:

Other Related Program Elements

	Prior Year	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
QTY		A										
COST (In Millions)	**358.1**	A	**35.4**	**5.6**	**7.7**	**1.6**	**1.6**	**1.7**	**1.7**	**1.8**	**18.7**	**433.9**

This line item funds modifications to the AH-1W aircraft. Modifications prior to FY 1997 were funded in the H-1 Series line item. There are 180 AH-1W's. The AH-1W is a tandem seat, two place (pilot and gunner/co-pilot) attack helicopter designed and built to provide the high speed and maneuverability required by the attack mission. The armament of the AH-1W includes the SIDEWINDER, TOW and the HELLFIRE missile systems, a chin-mounted 20mm turret gun, and wide variety of forward firing and gravity released external stores. Operational Requirements Document (ORD) AAS-35 covers all OSIPs listed below. The overall goal of the modifications budgeted in FY2006 and FY2007 is to continue to fulfill the operational requirement to detect, identify and destroy tactical sized armored targets with precision guided munitions during the day, at night, and during adverse weather, as well as providing enhanced conventional weapons delivery by utilizing the systems laser ranging and designating system. The specific modifications budgeted and programmed are:

(TOA, $ in Millions)

OSIP No.	Description	Prior Year	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
8-90	AH-1 Night Targeting System	323.3	4.7	3.5								**331.4**
12-00	H-1 Mission Planning Module and OFP Software Upgrade Program	3.4	1.0	1.0								**5.4**
13-00	AH-1W Aircraft and T700 Engine Safety Corrections	15.2	3.4	1.1	1.3							**21.0**
02-03	AH-1 20MM Linkless Feed	4.4			6.4	1.6	1.6	1.7	1.7	1.8	18.7	**37.8**
16-98	AH-1W APR-39A(V)2	11.9	26.3									**38.2**
	Total	**358.1**	**35.4**	**5.6**	**7.7**	**1.6**	**1.6**	**1.7**	**1.7**	**1.8**	**18.7**	**433.9**

RESERVE FUNDING INCLUDED IN THE TOTALS: 0.5

Notes: FY04 OSIP 16-98 includes $.6M of Title IX supplemental funding that was reprogrammed to UH-1N (0532 Huey) and $1.1M that was reprogrammed to Common ECM.
Prior to FY 1997 AH-1W OSIPs were budgeted in the H-1 Series P-1 Line Item. Totals may not add due to rounding.

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: AH-1 Night Targeting System (OSIP 8-90)

MODELS OF SYSTEMS AFFECTED: AH-1W | TYPE MODIFICATION: Safety

DESCRIPTION/JUSTIFICATION: The U.S. Marine Corps (USMC) has an operational requirement to detect, identify and destroy tactical sized armored targets with precision guided munitions during day, night and adverse weather conditions. The Night Targeting System (NTS) provides a night/adverse weather and designator TOW and autonomous HELLFIRE capability. In addition, NTS will provide enhanced conventional weapons delivery by utilizing the systems laser ranging system. This modification has two key parts: (1) the modification of the cockpit and the canopy places a radar altimeter in the front cockpit for the first time: and (2) the NTS itself.The Night Vision Goggle Helmet mounted Display and Improved Crew Restraint System completes the NTS modification. NTS will accomplish the USMC requirement for night operations by incorporating a high resolution stabilized forward looking infra-red sensor, charged coupled device camera system, automatic target tracking, and laser range finder/designator into the current M65 telescopic sight unit. Due to changes in the TOW missile control by addition of the NTS, a Buffer Box is being incorporated to ensure proper operation of the TOW missile with the NTS. Additional NTS WRA modifications to improve reliability, maintainability, and systems stabilization will also be incorporated.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The AH-1W Fleet has been fully outfitted with The Night Targeting System. There is a requirement to upgrade The Night Targeting System on the AH-1W flying until 2015. Upgrades will include but not limited to replacement of the first generation FLIR with a third generation FLIR, replacing the black and white TV with a color TV, improve boresight, and continue to look at reliability maintainability and stabilization issues.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
Acceleratаed Kits	5	2.0																				
NTS Kit ECP # 1648	132	129.4																				
NTSU AFC-TBD	4	3.9	3	2.3	3	2.3																
A/F Kit ECP # 1648	128	37.5																				
TOW BUFFER ECP#H1-CP20-98	202	1.8																				
Installation Kits N/R		21.5		0.2																		
Installation Equipment																						
GFE Retrofit		5.7																				
NTS GFE	79	1.5																				
5 PT RESTRAINT GFE	41	1.8																				
VCRs	137	3.6																				
Installation Equipment N/R		2.2																				
Engineering Change Orders		7.5																				
Data		1.5		0.1																		
Training Equipment	4	4.5																				
Support Equipment		15.1																				
ILS		14.6																				
Other Support		24.1		2.1		1.2																
Interim Contractor Support																						
Installation Cost	132	45.1																				
Total Procurement		**323.3**		**4.6**		**3.5**																

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **AH-1W** MODIFICATION TITLE: AH-1 NIGHT TARGETING SYSTEM (OSIP 8-90)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Contractor Drive-In Modification (Turn Key) through FY97. Annualized FY98 and out.**

ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2004: FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		**TOTAL**	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	**Qty**	**$**
FY 2003& PY (132) kits	132	45.1																				
FY 2004 () kits																						
FY 2005 () kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	**132**	**45.1**																				

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	132																								
Out	132																								

	FY 2010				FY 2011				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: H-1 Mission Planning Module (MPM) and OFP Software Upgrade (OSIP 12-00)

MODELS OF SYSTEMS AFFECTED: H-1's | TYPE MODIFICATION: Upgrade

DESCRIPTION/JUSTIFICATION: The H-1 MPM is a unique software module application designed to operate in and interface with the Joint Mission Planning System (JMPS) Core software architecture. The MPM links the JMPS core to the aircraft operational flight program (OFP) software. This OSIP will also provide for periodic OFP software upgrades. It is tailored to meet the mission planning requirements of the H-1 weapon system platform and makes extensive use of generic Core processing with adjustments for unique H-1 requirements. The MPM will provide the capability for the H-1 operator to effectively and efficiently plan a mission in an automated environment, thereby reducing aircrew workload. The MPM will allow for the development and refinement of specific mission data to be produced in the JMPS and then transferred to the aircraft via a Mission Data Loader/Advanced Memory Unit device. This data will include target and waypoint, threats, GPS, ARC-210, EW System, weapons, and aircraft performance information. The MPM will also allow for helicopter performance calculations, taking into consideration terrain and threat information, which will enhance survivability. As a result, the H-1 MPM and OFP software upgrades will enable the operators to more effectively plan the assigned H-1 missions and coordinate with other Service and other Marine assets.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Modification of the existing MPM is necessary to reflect the new Windows NT architecture design. FY 98 and FY 99 H-1 prior year Mission Planning developments were funded under OSIP 3-93. JMPS 7.0 Core and MPM releases are scheduled as follows: Release #1: FY01; Release #2: FY02; Release #3: FY03; Release #4: FY05.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
Installation Kits N/R																						
Installation Equipment																						
Installation Equipment N/R		2.3		0.8		0.7																
Engineering Change Orders																						
Data		0.1				0.1																
Training Equipment		*				*																
Support Equipment				0.1		0.1																
ILS																						
Other Support		0.9		0.1		0.1																
Interim Contractor Support																						
Installation Cost																						
Total Procurement		**3.4**		**1.0**		**1.0**																

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: AH-1W Aircraft and T700 Engine Safety Corrections(OSIP 13-00)

MODELS OF SYSTEMS AFFECTED: AH-1W | TYPE MODIFICATION: Safety

DESCRIPTION/JUSTIFICATION: This program is designed to address safety issues, such as mishap causal factors associated with maintaining an older type model series aircraft. The AH-1W helicopter is powered by two General Electric T700-GE-401 turboshaft engines which are controlled throughout the normal operating range by the Electrical Engine Control Unit (EECU) and the Hydro-Mechanical Unit (HMU) . Since 1994, 86 total power loss incidents have occurred with the T700-GE-401; 58 ground flameouts, 7 ground roll-backs, 10 inflight shut-downs, and 11 inflight rollbacks. These inadvertent power loss incidents severely jeopardize aircrew safety. Incorporation of a Digital Electronic Control Unit (DECU) with auto-ignition system will reduce the risk of an uncommanded engine flameout and complete power loss. This change will replace the EECU with a DECU which will be carried forward into the AH-1Z. Additional safety programs that will be implemented by this OSIP include, but are not limited to: Dynamic Component Change (DCC) to incorporate new chip detectors on the 42 and 90 degree gear boxes are required to provide improved warning of impending failure, and new filler caps to prevent internal corrosion caused by water intrusion. Equipment introduced by this change will be carried forward into the AH-1Z. Incorporation of Crash Attenuating Seat Cushions, to reduce the likelyhood of back injuries to pilots during hard landings or crashes, will be investigated for modification. Additional A/C fatigue life issues, including, but not limited to rotor blades, stub wings, and tailboom technology, will be investigated to improve performance and mitigate tailboom fatigue. Tailboom Strake technology will be investigated to improve performance and reduce tailboom fatigue. The redcution of cockpit vertigo induces problems which include Common Cockpit Processor (CCP), Heads-up-display (HUD) and Upgrade Transponder (CXP).

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The DECU is a General Electric proprietary, non-developmental item used on the SH-60B and aircraft equipped with T700-GE-401C. Contract awarded 1st quarter of FY00. Installation of prototypes was accomplished in 2nd quarter of FY01 to complete verification. This modification will carry forward to the AH-1Z.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
AFC XXX DECU Install Kits *	175	0.2	18	*																		
DCC XXX 42 & 90 Degree Gearbox *	50	0.9	82	2.2	45	0.7																
Installation Kits N/R	7	0.4																				
Installation Equipment	392	5.8																				
Installation Equipment N/R		0.8																				
Engineering Change Orders		0.2																				
Data		0.5		*		*		0.2														
Training Equipment	8	0.9	1	0.1																		
Support Equipment		0.9																				
ILS		0.8		0.4		0.1		0.2														
Other Support		3.7		0.8		0.3		0.9														
Interim Contractor Support		0.1																				
Installation Cost																						
Total Procurement		**15.2**		**3.4**		**1.1**		**1.3**														

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. Kits will be installed at the organizational level

Exhibit P-3a — Individual Modification

MODIFICATION TITLE: AH-1 20MM Reliability and Maintainability enhancements (OSIP 02-03)

MODELS OF SYSTEMS AFFECTED: AH-1W — TYPE MODIFICATION: Survivability

DESCRIPTION/JUSTIFICATION: The U.S. Marine Corps (USMC) has an operational requirement for conventional weapons delivery. This initiative will replace the current feeder assembly with one that utilizes linkless, bulk 20mm ammunition common to all other DoN 20MM systems (F/A-18, F-14, CIWS). The ammo can/feeder assembly is the highest reliability degrader in the gun system. In addition this OSIP provides for additional modifications, enhanced lubrication system/methodology, laser pointers, improved turret test console and improved barrel supports that will significantly increase the accuracy and reliability of this critical weapons system and enhance the survivability of the flight crew. The implementation of this modification will enhance the warfightr's capability to place more rounds on target by eliminating gun jamming significantly increasing reliability. This modification will be carried forward and must be forward compatible to the AH-1Z.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: This initiative will be implemented by issuance of a new contract based on open competition between several manufacturers of linkless feed technology. Contract Award is scheduled for the 2nd quarter of FY06. Production Installations are forcasted to commence in the 2nd quarter of FY07.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
Accelerated Kits																						
Installation Kits N/R																						
Installation Equipment																						
Linkless Feed Assembly	3	1.3					38	4.9	5	0.7												
Installation Equipment N/R		0.6																				
Engineering Change Orders		0.1																				
Data		0.1																				
Training Equipment	2	0.1						0.2														
Support Equipment		0.3						0.9														
ILS		1.1						0.2		0.2												
Other Support		0.6						0.2		0.7												
Interim Contractor Support																						
Installation Cost	5	0.2																				
Total Procurement		**4.4**						**6.4**		**1.6**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **AH-1W**

MODIFICATION TITLE: AH-1 20MM Reliability and Maintainability enhancements (OSIP 02-03)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Contractor Field Mod Teams - Commencing with the FY06 buy installations will occur at the "O" level.**

ADMINISTRATIVE LEADTIME: 0 Months

PRODUCTION LEADTIME: 1 Months

CONTRACT DATES: FY 2004: FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		**TOTAL**	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	**Qty**	**$**
FY 2003 & PY (5) kits	5	0.2																			**5**	**0.2**
FY 2004 () kits																						
FY 2005 () kits																						
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete () kits																						
TOTAL	**5**	**0.2**																			**5**	**0.2**

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	5																								
Out	5																								

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	TOTAL
In										
Out										

Exhibit P-3a — Individual Modification

MODIFICATION TITLE: AH-1W APR-39A(V)2 (OSIP 16-98)

MODELS OF SYSTEMS AFFECTED: AH-1W — TYPE MODIFICATION: Survivability

DESCRIPTION/JUSTIFICATION: Existing AH-1W aircraft self-protection/survivability systems are inadequate to cope with present-day threats. These engineering changes incorporate a survivability system that reduces aircrew workload, centralizes control functions and increases the helicopter's survivability during operations in or near hostile territory by providing additional threat detection capabilities; and enhanced missile and laser detection systems. The Integrated EW System consists of installation of the AN/AAR-47(V)2 Missile Warning Set, modification to the existing wiring for installation of the APR-39(V)2 RWR, removal of the AN/APR-44(3) Radar Warning System (MWS), required interfaces, and AN/ALE-47.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: This program utilizes operationally approved hardware to increase aircraft self protection and survivability. This modification will cover 180 AH-1W aircraft which include 2 AH-1W trainers. Additional Aircraft Survivability issues to be addressed as part of this OSIP include A/C IR signature suppression/reduction efforts (IR Suppressors and Turned Exhaust Systems).

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits:																						
IR Suppressors	36	2.3	19	1.1																		
AFC-369 (ALE-47)			65	0.5																		
AFC-230 Rev A. (EW Suite)	87	1.1	55	2.1																		
Turned Exhaust			60	14.5																		
Installation Kits N/R		2.6		1.5																		
Installation Equipment																						
Installation Equipment N/R				0.3																		
Engineering Change Orders																						
Data		0.3		0.1																		
Training Equipment	2	0.4		0.1																		
Support Equipment		0.4																				
ILS		0.9																				
Other Support		1.9		3.6																		
Interim Contractor Support																						
Installation Cost	89	2.1	180	2.3																		
Total Procurement		**11.9**		**26.3**																		

Notes:

1. FY04 OSIP 16-98 of Title IX includes .600M that was allocated to UH-1N (0532 Huey) and 1.1M that was allocated to Common ECM by the comptroller.
2. Totals may not add due to rounding
3. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **AH-1W** MODIFICATION TITLE: AH-1W APR-39A(V)2 (OSIP 16-98)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Contractor Field Mod Teams**

ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 3 Months

CONTRACT DATES: FY 2004: Dec-03 FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: Mar-04 FY 2005: 6 FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		**TOTAL**	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	**Qty**	**$**
FY 2003 & PY ( ) kits	89	2.1																				
FY 2004 ( ) kits			120	1.7																		
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	**89**	**2.1**	**120**	**1.7**																		

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	89		8	40	35	25	12																		
Out	89			8	40	35	25	12																	

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	TOTAL
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **AH-1W** MODIFICATION TITLE: AH-1W TURNED EXHAUST (OSIP 16-98)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Contractor Field Mod Teams**

ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 13 Months

CONTRACT DATES: FY 2004: May-04 FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: Jun-05 FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		**TOTAL**	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	**Qty**	**$**
FY 2003 & PY ( ) kits																						
FY 2004 ( ) kits			60	0.7																		
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL			**60**	**0.7**																		

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In									5	18	18	18	1												
Out										5	18	18	18	1											

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	TOTAL
In										
Out										

CLASSIFICATION: UNCLASSIFIED

Exhibit P-40, BUDGET ITEM JUSTIFICATION

DATE: **February 2005**

APPROPRIATION/BUDGET ACTIVITY
Aircraft Procurement, Navy/APN-5 Aircraft Modifications

P-1 ITEM NOMENCLATURE
H-53 Modifications

Program Element for Code B Items:

Other Related Program Elements

	Prior Years	ID Code	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	To Complete	Total
QTY		A										
COST (In Millions)	**315.5**	A	**72.1**	**18.2**	**14.9**	**25.8**	**36.4**	**25.5**	**26.2**	**28.0**	**218.2**	**780.8**

This line item funds modifications to the CH-53D/CH-53E/MH-53E aircraft. There are 38 MH-53E Helicopters; 151 CH-53E Helicopters; and 40 CH-53D Helicopters. The CH-53E is a seven blade main rotor and a four-blade canted tail rotor helicopter powered by three T64-GE-416A turbo shaft engines on the CH-53E while the CH-53D has six main rotor blades and two T64-GE-413 engines. The CH-53D/E aircraft are capable of both land and ship based transport of heavy equipment, supplies, and personnel. The MH-53E is similar to the CH-53E with additional capabilities for Airborne Mine Countermeasures (AMCM), Vertical On-Board Delivery (VOD), and Special Missions which require longer range and more precise navigation than that of the CH-53E. The overall goal of the modifications budgeted in FY06 was increased communication and navigation, night vision capability, and fleet operation and safety performance in the H-53 community.

The specific modifications budgeted and programmed are:

(TOA, $ in Millions)

OSIP No.	Description	Prior Years	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	To Complete	Total
11-92	AN/ARC-210 ECCM RADIO	22.3	0.6	0.4								**23.3**
12-92	CH-53E HELICOPTER NIGHT VISION SYSTEM	138.8	7.3	6.5	0.6	0.6	0.6	0.7	2.3	2.0	74.3	**233.9**
20-92	MH GLOBAL POSITIONING SYSTEM (GPS)	41.8	0.1									**41.9**
21-94	(ANVIS/HUD) AN/AVS-7	19.9	0.1									**20.1**
20-97	ATTENUATING TROOP SEATS	31.0	3.5									**34.4**
	DERF (non add)	1.8										**1.8**
7-98	INTEGRATED MECHANICAL DIAGNOSTIC SYSTEM	45.3	5.9	8.4	1.3	1.3	2.3	1.3	1.3	3.4	52.5	**123.0**
09-01	NACELLES	6.1	0.9	2.8	3.0	2.2	2.0					**17.0**
18-03	COMMON DEFENSE WEAPON	5.9	8.3									**14.1**
21-03	BALLISTIC PROTECTION SYSTEM (B	2.6	4.8									**7.4**
10-05	T-64 ENG RELIABILITY IMPROVEMEN		40.0		8.8	9.1	15.2	10.7	10.6	10.6	1.3	**106.4**
08-06	H-53 A/C SUSTAINMENT				1.1	12.6	16.3	12.8	11.9	12.0	90.0	**156.8**
	ALE-47 funds BTRd to Common ECM, BLI 0576		0.8									**0.8**
Total		**315.5**	**72.1**	**18.2**	**14.9**	**25.8**	**36.4**	**25.5**	**26.2**	**28.0**	**218.2**	**780.8**
TOTAL RESERVE FUNDING INCLUDED IN TOTAL			**6.6**	**6.7**	**6.9**	**7.1**	**7.3**	**7.4**	**7.5**	**7.7**		

Note: Totals may not add due to rounding.
Note: * indicates amounts less then 50K

Exhibit P-3a — Individual Modification

MODIFICATION TITLE: AN/ARC-210 ECCM Radio (OSIP 11-92)

MODELS OF SYSTEMS AFFECTED: CH-53D (47) (Note 3), CH-53E (158)(Note 4) , MH-53E (44), 249 Total

TYPE MODIFICATION: MISSION/PERFORMANCE ENHANCEMENT

DESCRIPTION/JUSTIFICATION: The AN/ARC-210 is a combination UHF/VHF, AM/FM jam-resistant radio that was developed for ECCM interoperability with the Air Force, Army, and NATO. The radio provides dual UHF capability for CV based TACAIR; VHF FM for close air support and maritime channels; VHF AM for air traffic control; and ECCM capabilities using the Air Force developed waveforms (UHF-AM HAVE QUICK I and II), and the Army developed waveform (VHF-FM SINCGARS). The AN/ARC-210 can be controlled by either a remote control unit or via a MIL-STD-1553 multiplex data bus. The ECCM parameters and single channel preset information can be loaded via a CYZ-10 Data Transfer Device (DTD). The fill information can consist of word-of-day for HAVE QUICK and the KGV-10 transec variable, hopsets and frequency lock-out tables for SINCGARS. Applicable ECPs: CH-53E: PNCLA-4, CH-53D: PNCLA-61, MH-53E: CHPT-006

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Procurement of the validation/verification kits occurred in August 1992. CH validation/verification efforts were procured in FY 1995. Procurement of validation/verification for the MH-53E took place in FY97. Due to the deactivation of RH-53D's, the incorporation of modifications in RH-53D aircraft was canceled.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
CH-53E A Kit (LBAD) Note 6	158	1.7																				
CH-53D A KIT (LBAD) Note 3	46	0.8																				
CH-53D Rev B Kit Note 5	45	0.4																				
MH-53E A KIT (LBAD)	41	0.8																				
CH-53D ATABS VAL/VER KIT	1	*																				
CH-53D ATABS A KIT Note 7	43	0.2																				
CH-53D APX-72 A KIT	40	0.2																				
Installation Kits N/R		1.5																				
Installation Equipment																						
GFE ITEMS - CHE Note 4	4	0.5																				
Installation Equipment N/R		0.3																				
Engineering Change Orders																						
Data		1.9																				
Training Equipment	7	0.7																				
Support Equipment																						
ILS		0.4																				
Other Support		4.9				0.3																
Interim Contractor Support																						
Installation Cost	306	8.2	18	0.6	3	0.2																
Total Procurement		**22.3**		**0.6**		**0.4**																

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. 41 MH INSTALLS (3 A/C IN STORAGE)
4. 4 radioes (GFE) procured by PMA-261 for Val/Ver. Balance procured by PMA-209
5. Includes 44 CHD Rev B installs
6. Only 150 Installations
7. 43 CH-53D ATABS A Kits are O level (no cost) installs

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: CH-53D (47), CH-53E (158) , MH-53E (44),249 Total MODIFICATION TITLE: AN/ARC-210 ECCM Radio (OSIP 11-92)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Concurrent with Naval Aviation Depot (NADEP) standard depot level maintenance (SDLM), augmented by NADEP and interservice field modification teams (FMTs).**

ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 13 Months

CONTRACT DATES: FY 2004: FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits	276	8.0	8	0.4	3	0.2																
FY 2004 ( ) kits																						
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	**276**	**8.0**	**8**	**0.4**	**3**	**0.2**																

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	276	2	2	2	2	2	1																		
Out	276	2	2	2	2	2	1																		

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: CH-53D APX-72 MODIFICATION TITLE: AN/ARC-210 ECCM Radio (OSIP 11-92)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Concurrent with (NADEP) (SDLM), augmented by NADEP and interservice field modification teams (FMTs).**

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 2 Months

CONTRACT DATES: FY 2004: FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits	30	0.2	10	0.1																		
FY 2004 ( ) kits																						
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	**30**	**0.2**	**10**	**0.1**																		

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	30		10																						
Out	30		2	8																					

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: CH-53E HELICOPTER NIGHT VISION SYSTEM (HNVS)(OSIP 12-92)

MODELS OF SYSTEMS AFFECTED: CH-53E (157) (Note 3) | TYPE MODIFICATION: MISSION/PERFORMANCE ENHANCEMENT

DESCRIPTION/JUSTIFICATION: The Helicopter Night Vision System (HNVS) will provide an infrared night vision system for the CH-53E transport helicopters. The HNVS provides an improved night/all weather mission capability. This OSIP includes integration of the off the shelf APN-217(V)6 Doppler Navigation System and AAQ-16B/29/29A FLIR. Future configuration for CH-53E transport helicopter will be the AAQ-29A FLIR due to obsolescence issues for OEM with AAQ-29. Program is structured to replace AAQ-16 and AAQ-29 with AAQ-29A to establish a single configuration.
Applicable ECP: 0231-E001

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The AAQ-16B/29 FLIR is a non-developmental Item (NDI) currently installed on a number of U.S. Army, Air Force, and Navy helicopters. DT-IIIA on the CH-53E/HNVS was completed in the third quarter FY 94. Extension of application for CH-53E was granted first quarter FY 95.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
A Kits	156	11.6																				
Installation Kits N/R		3.1																				
Installation Equipment																						
CH-53E installation equipment	195	18.7																				
CH-53E TFU/SDC AAQ-16B/29	223	72.3																				
CH-53E TFU/SDC AAQ-29A	3	2.2	11	6.1	11	5.9	1	0.5	1	0.5												
Installation Equipment N/R																						
Engineering Change Orders																						
Data		0.7																				
Training Equipment	3	8.4																				
Support Equipment																						
ILS		1.0																				
Other Support		12.2		0.6		0.5		0.1		0.1												
Interim Contractor Support																						
Installation Cost	141	8.7	12	0.6	5	0.2																
Total Procurement		**138.8**		**7.3**		**6.5**		**0.6**		**0.6**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. Though the program was truncated (from 166 kits to 138) by N880 and HQMC in FY'97, 19 additional Kits were approved and funded per N78 and HQMC in October 2001.
4. 1 A-Kit installed in FY03, 12 A-Kits to be installed in FY04 and 5 A-Kits to be installed in FY05 by Field Mod Teams. B-Kits (TFUs) installed at O-Level.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: CH-53E (157) (See Note 3) MODIFICATION TITLE: CH-53E HELICOPTER NIGHT VISION SYSTEM (HNVS)(OSIP 12-92)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **14 A-Kits installed in FY04 and 5 A-Kits installed in FY05 by Field Mod Teams. B-Kits (TFUs) installed at O-Level.**

ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 9 Months

CONTRACT DATES: FY 2004: FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits	141	8.7	12	0.6	5	0.2																
FY 2004 ( ) kits																						
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	**141**	**8.7**	**12**	**0.6**	**5**	**0.2**																

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	141	1	3	4	4	5																			
Out	141	1	3	4	4	5																			

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: MH Global Positioning System (NCS) (GPS) (OSIP 20-92)

MODELS OF SYSTEMS AFFECTED: MH-53E (32 Active, 12 Reserve) - 44 Total | TYPE MODIFICATION: SAFETY

DESCRIPTION/JUSTIFICATION: The Global Positioning System (GPS) is a space-based radio positioning navigation system designed to provide highly accurate navigation data (position, velocity, and time) to properly equipped users. The GPS integration into the MH-53E was to be originally accomplished via installation of the Navigation/Communication System (NCS). This system met all AMCM and GIG (DOD guidance for integration of GPS) requirements. Due to funding constraints, the NCS was cancelled in FY-99. As a result, the OSIP below was amended to reflect cancellation of the NCS system and reconfiguration of two aircraft previously outfitted with NCS, and show the procurement and installation of the MAGR 2000 GPS system. A two-phase approach removes the Omega Navigation System (ONS) and repositions the GPS-3A receiver to the right e-bay (Phase I). Phase II replaces the Phase I GFE with MAGR 2000/CDNU.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The NAVSTAR GPS program completed Milestone IIIB in January 1992. Operational Testing (OT-IIIC) commenced in the third quarter FY95 with a recommendation of operationally suitable/operationally effective. In Phase I, the GPS-3A receiver was repositioned-no test required. The MAGR 2000 system (Phase II) in the MH-53E completed OT-IIID in October 2002. Fleet installations were completed in FY03. This will be the Navy "lead the fleet" system implementation of GPS non-precision approach (NPA) capability.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
MH-53E NCS	4	5.2																				
MH-53E GPS Kit (ECP CH53-011)	84	2.7																				
Installation Kits N/R		2.3																				
Installation Equipment																						
GFE Reconfig																						
Installation Equipment N/R		0.4																				
Engineering Change Orders		0.2																				
Data		1.8																				
Training Equipment	4	10.7		0.1																		
Support Equipment		0.2																				
ILS		1.2																				
Other Support		12.7		*																		
Interim Contractor Support																						
Installation Cost	85	4.6																				
Total Procurement		**41.8**		**0.1**																		

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. Total Kit Qty includes 2 VAL/VER Kits and 2 Reconfigured Kits.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: MH-53E (32 Active, 12 Reserve) -44 Total

MODIFICATION TITLE: MH Global Positioning System (NCS) (GPS) (OSIP 20-92)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Initial val kit install is a turn key with verification install by NADEP Cherry Point. Subsequent installs will be accomplished by Field Mod Teams or concurrent with Standard Depot Level Maintenance (SDLM)**

ADMINISTRATIVE LEADTIME: 5 Months

PRODUCTION LEADTIME: 5 Months

CONTRACT DATES: FY 2004: FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits	85	4.6																				
FY 2004 ( ) kits																						
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	**85**	**4.6**																				

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	85																								
Out	85																								

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: AVIATOR NIGHT VISION IMAGING SYSTEM HEAD-UP DISPLAY (ANVIS/HUD) AN/AVS-7 (OSIP 21-94)

MODELS OF SYSTEMS AFFECTED: CH-53E 166 Aircraft & 4 Trainers

TYPE MODIFICATION: MISSION/PERFORMANCE ENHANCEMENT

DESCRIPTION/JUSTIFICATION: This modification incorporates the use of a Head-Up Display (HUD) with the AN/AVS-6 Night Vision Goggles (NVG). Helicopter crews perform missions at night using NVGs. Although NVGs provide aircrews with enhanced capability to operate during periods of darkness, they increase pilot workload due to critical flight instruments being placed outside of the visual scan. The ANVIS/HUD allows critical flight information to be displayed through the NVGs, thereby decreasing pilot workload and enhancing flight safety and mission effectiveness.
Applicable ECPs: CH-53E - PN47; CH-53D - PN61R1

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The ANVIS/HUD is a nondevelopmental system currently in use on the USMC UH-IN and CH-46, and the US Army UH-60 and CH-47. This system is being procured under an Army Contract with validation installation and DT/OT completed in FY 1996.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
CH-53D Kit ECP PN61R1																						
CH-53E Kit ECP PN47	166	2.7																				
Installation Kits N/R		3.6																				
Installation Equipment																						
CH-53E Install Equip (incl 4 trainers	170	5.3																				
Installation Equipment N/R																						
Engineering Change Orders																						
Data		0.3																				
Training Equipment	4	0.5																				
Support Equipment		0.5																				
ILS		0.4																				
Other Support		4.0																				
Interim Contractor Support																						
Installation Cost	154	2.8	16	0.1																		
Total Procurement		**19.9**		**0.1**																		

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: CH-53E 166 & 4 Trainers MODIFICATION TITLE: AVIATOR NIGHT VISION IMAGING SYSTEM HEAD-UP DISPLAY (ANVIS/HUD) AN/AVS-7 (OSIP 21-94)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Concurrent with Standard Depot Level Maintenance (SDLM) augmented by Interservice Field Mod Teams**

ADMINISTRATIVE LEADTIME: 7 Months PRODUCTION LEADTIME: 8 Months

CONTRACT DATES: FY 2004: FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits	154	2.8	16	0.1																		
FY 2004 ( ) kits																						
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	**154**	**2.8**	**16**	**0.1**																		

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	154	5	5	3	3																				
Out	154	5	5	3	3																				

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										170
Out										170

Exhibit P-3a Individual Modification

MODIFICATION TITLE: ATTENUATING TROOP SEATS (OSIP 20-97)

MODELS OF SYSTEMS AFFECTED: CH-53D (46), CH-53E (154), MH-53E (22) TYPE MODIFICATION: SAFETY

DESCRIPTION/JUSTIFICATION: Utility and Troop transport mission increasing in importance. Current troop/passenger seats are 1950 generation. Design does not provide impact protection of current rotorcraft seat designs. The impulsive type loading experienced during survivable mishaps produces amplified seat/floor anchor loads and potentially injurious occupant decelerations. Due to this operational deficiency, NDI crashworthy troop seat program established. NDI are lightweight off-the-shelf seats that provide protection by limiting an occupants inertial loading to survivable levels by attenuating impact forces to below survivable ranges and enables the occupant to rapidly egress a downed aircraft are being sought.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: NDI procedures utilized for the Procurement, Installation and Support of the seats for all 46 CH-53D Helicopters. Funding for the 46 seats and associated requirements were appropriated in 1997. Program consists of a one-time procurement with a turn-key installation approach. FY-98 through FY04 provided for procurement, installation, and support of the CH-53E and MH-53E helicopters.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
CH-53D Kit	46	4.6																				
CH-53E Kit	154	11.9																				
MH-53E Kit	2	0.4	20	1.6																		
Installation Kits N/R		1.3																				
Installation Equipment																						
Seat testing		0.7																				
Installation Equipment N/R																						
Engineering Change Orders		0.5																				
Data		0.8		0.2																		
Training Equipment		*																				
Support Equipment																						
ILS		0.3																				
Other Support		7.6		1.0																		
Interim Contractor Support																						
Installation Cost	202	4.6	20	0.6																		
Total Procurement		**32.8**		**3.5**																		

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. Purchased 24 CH-53E kits with FY02 DERF funding. APN-5 will pay for installs.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: CH-53D (46), CH-53E (154), MH-53E (22) MODIFICATION TITLE: ATTENUATING TROOP SEATS (OSIP 20-97)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Contractor Field Modification Teams and SDLMs**

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 8 on initial buy Months

CONTRACT DATES: FY 2004: Feb-04 FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: Aug-04 FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits	202	4.6																				
FY 2004 ( ) kits			20	0.6																		
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	**202**	**4.6**	**20**	**0.6**																		

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	146	18	18	25	9	6																			
Out	142	18	18	25	13	6																			

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a Individual Modification

MODIFICATION TITLE: HELICOPTER INTEGRATED MECHANICAL DIAGNOSTIC SYSTEM (IMDS) (OSIP 7-98)

MODELS OF SYSTEMS AFFECTED: CH-53E - 149; MH-53E - 44 (CH-53E - (22) LRIP Quantity) TYPE MODIFICATION: SAFETY, READINESS AND MAINTAINABILITY

DESCRIPTION/JUSTIFICATION: IMD is a helicopter monitoring and diagnostics system that provides continuous on board monitoring and diagnostics of engine health, gearbox and drive train vibrations, oil debris, rotor track and balance, and crash protected Cockpit Voice and Flight Data recorder (CVFDR). CVFDR, an integral part of the IMD system, will perform the required function of a Flight Incident Recorder (FIR). An Early Operational Assessment (EOA) of a Commercial Off-the-Shelf system on two CH-53E's occurred FY96-98. Lessons learned from this effort were incorporated into the solicitation for the fleet wide IMD effort of which the H-53E is the lead platform.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The H-53E prototype effort in FY98-99 was a pilot program conducted at HMT-302 to validate a production representative system prior to Milestone III decision in first quarter of FY05. Plan endorsed by MDA as of Feb. 2003.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
CH-53E A Kit	22	6.4	12	3.7	16	4.7	2	0.7	2	0.7												
MH-53E A Kit																						
MH-53E Reserve Kit																						
Installation Kits N/R		3.1																				
Installation Equipment																						
Installation Equipment N/R																						
Engineering Change Orders																						
Data		0.5																				
Training Equipment		0.3																				
Support Equipment	2	0.1				0.2	2	0.1														
ILS		2.2		*																		
Other Support		31.2		1.0		1.8		0.5		0.5												
Interim Contractor Support																						
Installation Cost	22	1.5	12	1.2	16	1.6			2	0.2												
Total Procurement		**45.3**		**5.9**		**8.4**		**1.3**		**1.3**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: CH-53E - 149; MH-53E - 44 (CH-53E - (22) LRIP Quantity)

MODIFICATION TITLE: HELICOPTER INTEGRATED MECHANICAL DIAGNOSTIC SYSTEM (IMDS) (OSIP 7-98)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **CONTRACTOR INSTALLED**

ADMINISTRATIVE LEADTIME: 5 Months

PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2004: Jul-04 FY 2005: Jan-05 FY 2006: Mar 06 FY 2007: Mar 07

DELIVERY DATE: FY 2004: Aug-04 FY 2005: Feb-05 FY 2006: Sep 06 FY 2007: Sep 07

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits	22	1.5																				
FY 2004 ( ) kits			12	1.2																		
FY 2005 ( ) kits					16	1.6																
FY 2006 ( ) kits									2	0.2												
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	**22**	**1.5**	**12**	**1.2**	**16**	**1.6**			**2**	**0.2**												

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	16	2	2	5	3	3	7	4	4	4				1	1										
Out	14	2	2	5	5	3	7	4	4	4				1	1										

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: Engine Nacelles (09-01)

MODELS OF SYSTEMS AFFECTED: CH/MH-53E | TYPE MODIFICATION: MISSION/MISSION ENHANCEMENT

DESCRIPTION/JUSTIFICATION: This modification provides improvements to the engine nacelles which are intended to decrease the maintenance man-hours expended on nacelles repair and replacement. This modification will incorporate the forward and aft engine nacelles for the CH-53E and MH-53E.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Contract awarded 2nd Qtr. FY 02. O-Level Validation/Verification was completed May 03. All installations are O-Level. Material quality defects were discovered in the first production lot. Technical data package being reviewed by the OEM. Expect a rework plan by 4th quarter FY04. While rework is being completed, FY04 OSIP funding was utilized in the HNVS production buy which was identified as a key safety modification required to operate in OIF/OEF.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
MH/CH-53E	46	3.2	5	0.3	39	2.6	41	2.9	28	2.0												
MH/CH-53E VAL/VER	2	0.1																				
Installation Kits N/R		0.9		0.2																		
Installation Equipment																						
Installation Equipment N/R																						
Engineering Change Orders																						
Data		0.1																				
Training Equipment																						
Support Equipment																						
ILS		*																				
Other Support		1.9		0.3		0.1		0.2		0.1												
Interim Contractor Support																						
Installation Cost																						
Total Procurement		**6.1**		**0.9**		**2.8**		**3.0**		**2.2**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. All installations are O-Level.

Exhibit P-3a Individual Modification

MODIFICATION TITLE: CMD DEF WPN RDTEN AND PROCURMENT (OSIP 18-03)

MODELS OF SYSTEMS AFFECTED: CH-53D/E, CH-46, UH1 TYPE MODIFICATION: MISSION/MISSION ENHANCEMENT

DESCRIPTION/JUSTIFICATION: The Common Defensive Weapon System is a .50 Caliber Medium Pintle Head mounted weapon system which will provide enhanced defensive and suppressive fire for Marine Corps assault support aircraft. The CDWS consists of a M3M .50 Caliber machine gun, a medium pintle head mount with recoil dampening buffers, and an aircraft integration/mounting kit. This system will increase aircraft/aircrew survivability during assault support missions by increasing the effective range and rate of fire as compared to current systems.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The M3M .50 Caliber Machine Gun is a COTS item ready for deployment. The MPH and aircraft integration kits base designs are also COTS though modifications for each T/M aircraft must still be finalized. All installs are at the O-level.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
CH-53D/E	36	1.2																				
CH-46	24	0.8																				
UH-1	18	0.6																				
Installation Kits N/R		0.8																				
Installation Equipment																						
CH-53D/E	40	0.6	162	3.5																		
CH-46	26	0.4																				
UH-1	20	0.3																				
Installation Equipment N/R																						
Engineering Change Order																						
DATA		0.3		1.0																		
Trainers, Operational				0.4																		
Support Equipment				1.7																		
ILS		0.5		0.6																		
Other Support		0.3		1.0																		
Interim Contractor Support																						
Installation Cost																						
Total Procurement		**5.9**		**8.3**																		

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. All insalls are at O-Level.

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: H-53 BALLISTIC PROTECTION SYSTEM (BPS) (OSIP 21-03)

MODELS OF SYSTEMS AFFECTED: CH-53E, | TYPE MODIFICATION: MISSION/PERFORMANCE ENHANCEMENT

DESCRIPTION/JUSTIFICATION: Ballistic Protection System (BPS) provides increase protection and survivability for H-53 aircrew and passengers against small arms and anti-aircraft fragmentation type threats. BPS is a mission kit of protective armor panels secured to the cockpit and cargo compartment floor and to the sidewall area around the gunners' doors.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The BPS is in production and is being delivered on an expedited basis to CH-53E aircraft deployed in Operation Iraqi Freedom/Enduring Freedom (OIF/OEF) and Horn of Africa (HOA) theaters. Every CH 53E will receive installation provisions (A-Kit), and an armor panel set (P-Kit) will go to approximately half of the aircraft. The BPS can be quickly moved from aircraft to aircraft according to mission needs once the A-Kit has been installed. The FY04 funding procures 57 P-Kits to complete the anticipated requirement for all CH-53E BPS.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
APN-5																						
PROCUREMENT																						
Installation Kits																						
BPS Standardization A-kit (PMC)	1	*																				
PBS A-kit- CHE (PMC)	149	2.0																				
Installation Kits N/R																						
Installation Equipment																						
BPS Standardization B-kit (PMC)	1	0.1																				
BPS B-kits-CHE (PMC)	4	0.4	57	4.7																		
Installation Equipment N/R																						
Engineering Change Orders																						
Data Publications		0.1																				
Trainers, Operational																						
Support Equipment		*																				
ILS		*		*																		
Other Support		*		*																		
Interim Contractor Support																						
Installation Cost																						
Total Procurement		**2.6**		**4.8**																		

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. All installations are O-Level.

Exhibit P-3a — Individual Modification

MODIFICATION TITLE: T-64 ENGINE RELIABILITY IMPROVEMENTS (GRIP) (OSIP 10-05)

MODELS OF SYSTEMS AFFECTED: CH-53E T64 416 Turbo-shaft engines (488) TYPE MODIFICATION: SAFETY, READINESS AND MAINTAINABILITY

DESCRIPTION/JUSTIFICATION: The T64 Engine reliability Improvement Program upgrades top age related engine degraders, fatigue limiters, and performance degradation on the T64 engine. A concentrated effort is to upgrade the T64-416 engines to the T64-416A configuration by replacing components of the engine with improved hardware designs to increase reliability and reduce logistical requirements by conforming to one configuration. Other efforts are to improve age related components such as torques measuring gages and thermocouples that have become obsolescent.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: 488 engines remain to be upgraded from -416 to -416A. The -416A upgrade kit development was previously completed. Only procurement of the -416A upgrade kits is required under this OSIP.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
416A Upgrade Kit																						
Installation Kits N/R				0.1																		
Installation Equipment			84	29.1			59	8.2	59	8.3												
Installation Equipment N/R				3.4																		
Engineering Change Orders																						
Data				1.2																		
Training Equipment																						
Support Equipment				2.6																		
ILS				0.4																		
Other Support				2.2				0.6		0.8												
Interim Contractor Support																						
Installation Cost				0.9																		
Total Procurement				**40.0**				**8.8**		**9.1**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. Installs will be done as part of the DEPOT overhaul and field mod team

Exhibit P-3a Individual Modification

MODIFICATION TITLE: H-53 A/C SUSTAINMENT (OSIP 08-06)

MODELS OF SYSTEMS AFFECTED: CH-53D, CH-53E, MH-53E TYPE MODIFICATION: MISSION/PERFORMANCE ENHANCEMENT

DESCRIPTION/JUSTIFICATION: The H-53 Aircraft are included in the Naval Aviation Plan to support Sea Power 21 through CY 2020. The H-53 Aircraft Sustainment Strategy targets initiatives to remedy the top age-related maintenance degraders, fatigue life limiters, and safety issues that impede the aircraft's ability to operate into the future. This program implements a concentrated effort to utilize improvements to the H-53 component obsolescence (e.g. Engine Air Particle Separator (EAPS) redesign), structural limitations (e.g. transition bulkhead and station 820 structural improvement), aircrew safety systems and program sustainment support. This effort will sustain the H-53 legacy fleet in an affordable manner until the H-53 follow-on aircraft becomes available.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The H-53 Sustainment Strategy program is anticipated to reach milestone C the 1st quarter of FY06. Because of limited funds in FY06, high priority requirements will be the concentration and the bulk of procurement will begin in FY07.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
INSTALLATION EQUIPMENT																						
EAPS Redesign									8	1.1												
Station 820 Bulkhead							21	0.1	45	0.2												
Transition Bulkhead									6	0.4												
Component Obsolescence									35	1.7												
Crew Restraint System									12	0.2												
EAPS Redesign Val/Ver									2	0.3												
Crew Restraint System Val/Ver									2	*												
Transition Bulkhead (Remote Site)									1	*												
CH-53E Kit																						
Installation Kits N/R								0.3		0.5												
Installation Equipment																						
EAPS Redesign B Kit									8	2.3												
Installation Equipment N/R									2	1.1												
Engineering Change Orders																						
Data										0.6												
Training Equipment																						
Support Equipment																						
ILS								0.3		1.1												
Other Support								0.5		2.5												
Interim Contractor Support																						
Installation Cost									26	0.6												
Total Procurement								**1.1**		**12.6**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: CH-53D, CH-53E, MH-53E MODIFICATION TITLE: H-53 A/C SUSTAINMENT (OSIP 08-06)

INSTALLATION INFORMATION: Numerous different types of kits will be procured in this program. Each has it own unique production lead time and installation method.

METHOD OF IMPLEMENTATION:

ADMINISTRATIVE LEADTIME: 1-6 months Months PRODUCTION LEADTIME: 9 Months

CONTRACT DATES: FY 2004: FY 2005: FY 2006: Jan-06 FY 2007: Jan-07

DELIVERY DATE: FY 2004: FY 2005: FY 2006: Sep-06 FY 2007: Sep-07

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits																						
FY 2004 ( ) kits																						
FY 2005 ( ) kits																						
FY 2006 ( ) kits									21	0.2												
FY 2007 ( ) kits									5	0.4												
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL									**26**	**0.6**												

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In														6	6	7	7								
Out														6	6	7	7								

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

CLASSIFICATION: UNCLASSIFIED

Exhibit P-40, BUDGET ITEM JUSTIFICATION

DATE: **February 2005**

APPROPRIATION/BUDGET ACTIVITY: **Aircraft Procurement, Navy/APN-5 Aircraft Modifications**

P-1 ITEM NOMENCLATURE: **H-60 Modifications**

Program Element for Code B Items:

Other Related Program Elements

	Prior Years	ID Code	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	To Complete	Total
QTY		A										
COST (In Millions)	**12.0**	A	**16.7**	**11.6**	**12.4**	**13.8**	**7.7**	**8.3**	**8.5**	**8.6**		**99.6**

This line item funds modifications to H-60 series aircraft. The H-60 series current inventory is comprised of: 39 HH-60H, 148 SH-60B, 73 SH-60F. The current retrofit plan for GPWS is comprised of: 74 MH-60S and 36 MH-60R. The design service life of these weapon systems is 10,000 hours, the average service life remaining is as follows: SH-60B 4,946 hours, SH-60F 7,557 and HH-60H 7,691. The SH-60B is the vehicle component of the LAMPS MK III Weapon System on surface combatants. The primary missions of the SH-60B are Anti-Submarine (ASW) and Anti-Surface Warfare (ASUW). The SH-60F is an ASW, dipping sonar helicopter assigned to carrier airwings based aboard aircraft carriers (CV). The SH-60F primary mission is protection of the CV inner zone. The HH-60H is a Combat Search and Rescue (CSAR) and Special Warfare Support (SWS) helicopter assigned to carrier airwings aboard CVs and also in two reserve squadrons. SH-60B requirements are driven by the number of LAMPS MK III ships to be supported. The overall goal of the modifications budgeted is for the Gearbox Corrosion and Safety Related Systems Upgrade, Transmission Beam Fatigue, and AMCM /Armed Helo (Correction of Deficiencies) for the MH-60S and the Armed Block I Upgrade for the MH-60R. The specific modifications budgeted and programmed are:

(TOA, $ in Millions)

OSIP No.	Description	Prior Years	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	To Complete	Total
17-02	Advance Helicopter Emergency Egress Lighting System (ADHEELS)	**2.0**	**1.4**	**0.7**								**4.1**
08-03	Gearbox Corrosion	**0.1**										**0.1**
09-03	H-60 Safety Related Systems Upgrade	**10.0**	**11.9**	**6.4**	**4.7**	**5.3**	**4.7**	**4.9**	**5.5**	**5.6**		**59.0**
16-04	MH-60S AMCM/Armed Helo		**3.4**	**4.5**	**3.2**	**3.8**						**14.9**
01-06	MH-60R Armed Block I Uprgrade				**4.4**	**4.7**	**3.0**	**3.4**	**3.0**	**3.0**		**21.6**
	TOTAL	**12.0**	**16.7**	**11.6**	**12.4**	**13.8**	**7.7**	**8.3**	**8.5**	**8.6**		**99.6**

Note: Totals may not add due to rounding.

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: Advance Helicopter Emergency Egress Lighting System ADHEELS (OSIP17-02)

MODELS OF SYSTEMS AFFECTED: SH-60B, SH-60F, HH-60H | TYPE MODIFICATION: Operational Enhancement/ Safety

DESCRIPTION/JUSTIFICATION: The ADHEELS 2000/fl is a self-contained, automatically activated, emergency exit/escape light system. Some of the more impressive characteristics of the system include both automatic and manual activation, automatically activated by water immersion, G-sensitive switch, pitch/roll>110 degrees activation, system weight is <10lb per aircraft vs. 27lb for AFC-46 heels, five (5) year maintenance cycle (battery package replacement). Current retrofit plan reflects: (148) SH-60B, (73) SH-60F, and (39) HH-60H. FY04 funding realigned from OSIP 09-03 and placed in OSIP 17-02 ADHEELS to outfit remaining SH-60B approved by Resource Sponsor.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$			Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits	127	1.0	148	1.2																		
Retrofit Kits																						
Installation Kits N/R		0.1																				
Installation Equipment																						
Installation Equipment N/R																						
Engineering Change Orders																						
Data		0.2		0.1																		
Training Equipment																						
Support Equipment																						
ILS				0.1																		
Other Support		0.1																				
Interim Contractor Support																						
Installation Cost	20	0.6	127	0.1	115	0.7																
Total Procurement		**2.0**		**1.4**		**0.7**																

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **SH-60B, SH-60F, HH-60H** MODIFICATION TITLE: Advance Helicopter Emergency Egress Lighting System (OSIP 17-02)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Contractor Field Mod Team**

ADMINISTRATIVE LEAD-TIME: 3 Months PRODUCTION LEAD-TIME: 8 Months

CONTRACT DATES: FY 2004: Jan-04 FY 2005: Jan-05 FY 2006: FY 2007:

DELIVERY DATE: FY 2004: Aug-04 FY 2005: Sep-05 FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY (127) kits	20	0.6	107																			
FY 2004 (135) kits			20	0.1	115	0.7																
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	**20**	**0.6**	**127**	**0.1**	**115**	**0.7**																

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	20	54	53		20	31	32	32	20								
Out	20	54	53		20	31	32	32	20								

	FY 2008				FY 2009				FY2010				FY 2011				To	
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	TOTAL
In																		
Out																		

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: Gearbox Corrison (OSIP 08-03)

MODELS OF SYSTEMS AFFECTED: SH-60B, SH-60F, HH-60H | TYPE MODIFICATION: Operational Enhancement

DESCRIPTION/JUSTIFICATION: Currently, the Main Gear Box is NRE developing sensor (a flight critical area) to check for corrosion once a year during a 365 day inspection. Approximately 3 out of 10 Main Gear Boxes are found to have excessive corrosion and need to be replaced. A monitoring sensor placed on the Main Gear Box forward bridge assembly would provide an early warning system when corrosion starts to become excessive. In reaction to this warning, additional preventative measures could be taken resulting in substantially less money and man-hours being spent repairing/replacing the Main Gear Box.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Sensor Lab Testing was completed October 2002, Sensor Field Validation commenced September 2003, Sensor Acquisition August 2004, Sensor Installation January 2005. Milestone dates have been updated to reflect delays in contractual actions resulting from J&A for sole source procurement.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
Installation Kits N/R		0.1																				
Installation Equipment																						
Installation Equipment N/R																						
Engineering Change Orders																						
Data																						
Training Equipment																						
Support Equipment																						
ILS																						
Other Support																						
Interim Contractor Support																						
Installation Cost																						
Total Procurement		**0.1**																				

Notes:

1. Totals may not add due to rounding

2. Asterisk indicates amount less than $50K

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: H-60 Safety Related Systems Upgrade (OSIP 09-03)

MODELS OF SYSTEMS AFFECTED: SH-60B, SH-60F, HH-60H | TYPE MODIFICATION: Operational Enhancement

DESCRIPTION/JUSTIFICATION: Gunners Belts are H-60 Series Systems Safety Working Group (SSWG) number 1 item of concern. Procured 1 per aircraft for 147 SH-60B, and 3 per 74 SH-60Fs, 39 HH-60Hs, and 39 MH-60Ss. Gunner's Belt (Web Retractors) are used by crewmen when they are out of seats, i.e., as during unprepared landing in a Landing Zone (LZ) l during VERTREP operations. T700 Engine Safety Improvements (New White Harness) funds ECPs to provide encapsulated (waterproof) engine wire harness. In addition troubleshoot T700 Engine problems unique to H-60 community and find fixes. Support proposed Joint ECP to provide an Engine High Speed Shaft Flex Coupling Replacement, a proven Lead The Fleet (LTF) concept that would remove the potential for catastrophic engine failures, by increasing margin of safety and readiness while reducing inspection and maintenance tasks. Stabilator Control System Redesign solves problem of uncommanded runaway without caution alerts. H-60 Lighted RAST Probe provides a luminescent messenger cable.

MODELS OF SYSTEMS AFFECTED: MH-60R, MH-60S | TYPE MODIFICATION: Operational Enhancement

DESCRIPTION/JUSTIFICATION: Cockpit Voice Recorder and Flight Data Recorder is to provide crash data to assist accident investigation personnel in gathering data to determine the cause of the accident. The Ground Proximity Warning System (GPWS) will be a software-based system that takes existing aircraft data and calculates a recovery profile to the above ground attitude of the aircraft. If the recovery profile (plus a suitable buffer) intercepts this ground height, GPWS will generate a warning to the pilot. Other means of generating a warning may also be used to ensure maximum detection with minimum nuisance cues. The retrofit plan for systems to be modified is as follows: MH-60S 74; MH-60R 36. FY04 funding realigned from OSIP 09-03 and placed in OSIP 17-02 ADHEELS to outfit remaining SH-60B approved by Resource Sponsor. T700 Engine Safety Improvements (New White Harness) funds ECPs to provide encapsulated (waterproof) engine wire harness.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Off the shelf items (minor mod required), off the shelf components for a 1-level fixed contract lead time is 6 months and production is 3 months to deliver all parts required. Joint Engineering Change Proposal with Army testing completed May 20, 2001.

METHOD OF IMPLEMENTATION: The Gunner Belts, White Harness, High Speed Shaft, Lighted Rast Probe, Cockpit Voice Recorder and Flight Data Recorders are "O" Level Installs.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY 2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits (SH-60B/SH-60F/HH-60H)																						
SH-60B Gunners Belt Kits	160	0.3																				
SH-60F Gunners Belt Kits	222	0.4																				
HH-60H Gunners Belt Kits	120	0.2																				
MH-60S Gunners Belt Kits	116	0.2																				
White Harness (ALL TMS)	548	0.2																				
H-60 High Speed Shaft (ALL TMS)	322	4.0	191	2.9	166	2.0			6	0.1												
H-60 Lighted RAST Probe (SH-60B/SH-60F/HH-60H)	202	0.1																				
New White Harness (ALL TMS)							110	1.7	125	1.9												
Installation Kits (MH-60S, MH-60R)																						
MH-60S CVR/FDR					37	1.3	37	1.3	25	0.5												
MH-60R CVR/FDR					20	0.8	16	0.1	11	0.4												
Installation Kits N/R (MH-60S/MH-60R)		0.2																				
Installation Kits N/R (SH-60B/SH-60F/HH-60H)		0.9		0.7																		
Installation Kits N/R (H-60) Hellfire Sea Target				1.0																		
Installation Equipment N/R (MH-60S/MH-60R)				1.0																		
Installation Equipment N/R (SH-60B/SH-60F/HH-6H)		1.0		1.1																		
Installation Equipment (MH-60S/MH-60R)																						
MH-60R/S Gunners Belts	104	0.3																				
MH-60S GPWS			37	0.3	30	0.2	7	0.1														
MH-60R GPWS			11	0.1	8	0.1	14	0.1														
Installation Equipment (SH-60B/SH-60F/HH-6H)																						
SH-60B/SH-60F/HH-6H Gunners Belts	78	0.2																				
Engineering Change Orders				*																		
Data		1.0		0.8		0.2		0.3		0.5												
Training Equipment		0.1		0.1		0.2		0.1		0.3												
Support Equipment																						
ILS		0.2		0.3		0.4		0.1		0.5												
Other Support		0.6		3.1		0.4		0.6		1.1												
Interim Contractor Support																						
Installation Cost			48	0.4	38	0.8	21	0.4														
Total Procurement	**1872**	**10.0**	**239**	**11.9**	**261**	**6.4**	**184**	**4.7**	**167**	**5.3**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. Gunner Belts, White Harness, New White Harness, High Speed Shaft, Lighted RAST Probe, Cockpit Voice Recorder and Flight Data Recorders are "O" Level Installs.
4. H-60 Lighted RAST Probe procured for 160 SH-60Bs, 21 SH-60Fs and 21 HH-60Hs.
5. New White Harness will be procured for 138 SH-60Bs, 70 SH-60Fs, 39 HH-60Hs, 80 MH-60S, and 7 MH-60R @ 2 per.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **MH-60S GPWS** MODIFICATION TITLE: H-60 Safety Related Systems Upgrade (OSIP 09-03)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Contractor Field Mod Team**

ADMINISTRATIVE LEAD-TIME: 4 Months PRODUCTION LEAD-TIME: 6 Months

CONTRACT DATES: FY 2004: Jan-04 FY 2005: Jan-05 FY 2006: Jan-06 FY 2007:

DELIVERY DATE: FY 2004: Sep-04 FY 2005: Jul-05 FY 2006: Jul-06 FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits																						
FY 2004 (37) kits			37	0.3																		
FY 2005 (30) kits					30	0.2																
FY 2006 (7) kits							7	0.1														
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete (0) kits																						
TOTAL			**37**	**0.3**	**30**	**0.2**	**7**	**0.1**														

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007			
		1	2	3	4	1.0	2	3	4	1	2	3	4	1	2	3	4
In					37				30				7				
Out					37				30				7				

	FY 2008				FY 2009				FY2010				FY 2011				To	
	1	2	3	4	1	2.0	3	4	1	2	3	4	1	2	3	4	Complete	TOTAL
In																		
Out																		

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **MH-60R GPWS** MODIFICATION TITLE: H-60 Safety Related Systems Upgrade (OSIP 09-03)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Contractor Field Mod Team**

ADMINISTRATIVE LEAD-TIME: 4 Months PRODUCTION LEAD-TIME: 6 Months

CONTRACT DATES: FY 2004: Jan-04 FY 2005: Jan-05 FY 2006: Jan-06 FY 2007:

DELIVERY DATE: FY 2004: Sep-04 FY 2005: Jul-05 FY 2006: Jul-06 FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits																						
FY 2004 (11) kits			11	0.1																		
FY 2005 (8) kits					8	0.2																
FY 2006 (14) kits							14	0.2														
FY 2007 () kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL			**11**	**0.1**	**8**	**0.2**	**14**	**0.2**														

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007			
		1	2	3	4	1.0	2	3	4	1	2	3	4	1	2	3	4
In					11				8				14				
Out					11				8				14				

	FY 2008				FY 2009				FY2010				FY 2011				To Complete	TOTAL
	1	2	3	4	1	2.0	3	4	1	2	3	4	1	2	3	4		
In																		
Out																		

Exhibit P-3a Individual Modification

MODIFICATION TITLE: AMCM/Armed Helo (Correction of Deficiencies) (OSIP 16-04)

MODELS OF SYSTEMS AFFECTED: MH-60S TYPE MODIFICATION: Operational Enhancement

DESCRIPTION/JUSTIFICATION: Based on Developmental and Operational testing, Fleet aircraft require modifications to correct identified deficiencies incorporated in production aircraft. These modifications include corrections to Common Cockpit Avionics, Auxiliary Fuel System, High Maintenance Battery, Search and Rescue Equipment, Exterior Lighting, Rotor System and Airframe and Night Vision Display. Current retrofit plan is as follows: 65 MH-60S. The Aux Tank A kit will be retrofit on 50 aircraft. The Bifilar B Kit will be retrofit as an "O" Level install on 51 aircraft . These capabilities will be incorporated as forward fit in all subsequent aircraft during production.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The MH-60S aircraft completed OPEVAL in Mar 2002; MS III was completed 12 Aug 2002. The validation of the Aux Tank A will be complete in the second quarter of FY 2005.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$			Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
ECP 4000 Retrofit			5	0.5	24	2.0	15	1.2	6	0.5												
Bifilar			10	0.5	41	1.9																
NVD KIT					7	0.2	14	0.3	44	1.0												
Retrofit Kits																						
Installation Kits N/R				2.2																		
Installation Equipment																						
Installation Equipment N/R																						
Engineering Change Orders																						
Data																						
Training Equipment																						
Support Equipment																						
ILS																						
Other Support				0.2		0.1				0.4												
Interim Contractor Support																						
Installation Cost					12	0.4	31	1.7	72	1.9												
Total Procurement				**3.4**		**4.5**		**3.2**		**3.8**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **MH-60S** MODIFICATION TITLE: Aux Tank A Kit

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Contractor Field Mod Team**

ADMINISTRATIVE LEAD-TIME: 2 Months PRODUCTION LEAD-TIME: 6 Months

CONTRACT DATES: FY 2004: Aug-04 FY 2005: Dec-04 FY 2006: Dec-05 FY 2007: Dec-06

DELIVERY DATE: FY 2004: Feb-05 FY 2005: Jun-05 FY 2006: Jun-06 FY 2007: Jun-07

($ in Millions)

Cost:	Prior Years		FY2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits																						
FY 2004 (5) kits					5	0.3																
FY 2005 (24) kits							24	1.5														
FY 2006 (15) kits							1	0.1	14	1.0												
FY 2007 (6) kits									6	0.3												
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL					**5**	**0.3**	**25**	**1.6**	**20**	**1.3**												

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY2007				FY 2008			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In									5	8	7	6	4	5	5	5	5				
Out									5	8	7	6	4	5	5	5	5				

	FY 2009					FY 2010				FY2011				To		
	1	2	3	4		1	2	3	4	1	2	3	4	Complete	TOTAL	
In																
Out																

DD FORM 2454, JUN 86

CLASSIFICATION
UNCLASSIFIED

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **MH-60S** MODIFICATION TITLE: **NVD Lighting**

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Contractor Field Mod Team**

ADMINISTRATIVE LEAD-TIME: 1 Months PRODUCTION LEAD-TIME: 2 Months

CONTRACT DATES: FY 2004: Aug-04 FY 2005: Aug-05 FY 2006: Aug-06 FY 2007: Aug-07

DELIVERY DATE: FY 2004: Sep-04 FY 2005: Sep-05 FY 2006: Sep-06 FY 2007: Sep-07

($ in Millions)

Cost:	Prior Years		FY2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits																						
FY 2004 ( ) kits																						
FY 2005 (7) kits					7	0.1																
FY 2006 (14) kits							6	0.1	8	0.1												
FY 2007 (44) kits									44	0.5												
FY 2008 () kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL					**7**	**0.1**	**6**	**0.1**	**52**	**0.6**												

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY2007				FY 2008			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In								3	4			3	3	8	14	15	15				
Out								3	4			3	3	8	14	15	15				

	FY 2009				FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	1	2	3	4	Complete	TOTAL
In														
Out														

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: Armed Block I Upgrade (01-06)

MODELS OF SYSTEMS AFFECTED: MH-60R | TYPE MODIFICATION: Operational Enhancement

DESCRIPTION/JUSTIFICATION: Global Positioning System (GPS) Selective Availability Anti-Spoofing Module (SAASM) is a set of functional security requirements used to design and build a secure GPS receiver. Use of GPS SAASM security architecture significantly enhances the pilot's ability to use the GPS Precise Positioning, velocity, time, and other GPS sensor information in all environments. Current retrofit plan reflects: (23) MH-60R. Link 16 supports the exchange of C4I data that is required to operate in a Joint and NATO Battlespace. Link 16 is designed to support the exchange of formatted data messages rather than the "raw" data exchange that the existing Hawklink and Tactical Common Data Link (TCDL) will support. Link 16 is a part of the MH-60R Block Upgrades as specified in the evolutionary acquisition strategy for the program.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: SAASM Joint Common System (JCS) Instruction CDCSI 6140.01, issued 15 November 1998, mandates that all Precise Position Systems (i.e. Global Positioning System (GPS) used on the MH-60R) users field SAASM-based user equipment and use black keys after 01 October 2002.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
GPS SAASM Kit							4	0.2	4	0.2												
Link 16 Kit							4	0.5	4	0.5												
Installation Kits N/R																						
Installation Equipment																						
Equip																						
Installation Equipment N/R																						
Engineering Change Orders																						
GPS SAASM Kit ECO																						
Link 16 Kit ECO																						
Data																						
Training Equipment																						
Support Equipment																						
ILS																						
Other Support																						
Interim Contractor Support																						
Installation Cost							8	3.7	8	4.0												
Total Procurement								**4.4**		**4.7**												

Notes:

1. Totals may not add due to rounding

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **MH-60R** MODIFICATION TITLE: Armed Block I Upgrade - GPS SAASM - Link 16 Kits

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Depot Level Installation**

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2004: FY 2005: FY 2006: **Dec-05** FY 2007: **Dec-06**

DELIVERY DATE: FY 2004: FY 2005: FY 2006: **Jun-06** FY 2007: **Jun-07**

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits																						
FY 2004 ( ) kits																						
FY 2005 ( ) kits																						
FY 2006 ( ) kits							8	3.7														
FY 2007 ( ) kits									8	4.0												
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL							**8**	**3.7**	**8**	**4.0**												

**Installs for aircrafts include GPS SAASM and Link 16 kits being installed concurrently

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In												4	4		2	2	4								
Out												4	4		2	2	4								

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-40, BUDGET ITEM JUSTIFICATION								DATE: **February 2005**				
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy/APN-5 Aircraft Modifications**						P-1 ITEM NOMENCLATURE **H-1 Series Modifications**						
Program Element for Code B Items:												
	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
QTY		A										
COST (In Millions)	**112.6**	A	**13.4**	**8.5**	**7.4**	**7.4**	**6.0**	**7.6**	**7.8**	**7.9**	**61.7**	**240.4**

There are 87 H-1N's in the UH configuration and 22 H-1Ns in the HH configuration for a total of 109. The UH-1N provides command and control and combat assault support under day/night and adverse weather conditions. Additional UH-1N missions include special operations support, controls/coordination/guidance of supporting fire and aeromedical evacuation. The overall goal of the modifications budgeted in FY2006 is to eliminate safety hazards, remedy obsolescence and maintain significant mission capability until the planned retirement date. The HH configured aircraft provide local civilian and military search and rescue support, as well as augmenting Department of Homeland Security resources.

OSIP No.	**Description**	**Prior Years**	**FY 2004**	**FY 2005**	**FY 2006**	**FY 2007**	**FY 2008**	**FY 2009**	**FY 2010**	**FY 2011**	**To Complete**	**Total**
31-92	UH-1 NTIS	83.4	8.3	8.2	7.2	7.2	5.8	7.4	7.5	7.7	61.7	**204.5**
15-98	UH-1N AN/APR-39A(V) Warning Receiver System	3.6	2.7									**6.3**
18-98	H-1N Safety Upgrades	25.6	2.4	0.2	0.2	0.2	0.2	0.2	0.3	0.3		**29.6**
	Total	**112.6**	**13.4**	**8.5**	**7.4**	**7.4**	**6.0**	**7.6**	**7.8**	**7.9**	**61.7**	**240.4**
RESERVE FUNDING INCLUDED IN TOTAL		5.2										

Notes: Asterisk indicates amounts less than $50K
Totals may not add due to rounding

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: UH-1N NAVIGATIONAL THERMAL IMAGING SYSTM (NTIS) (OSIP 31-92)

MODELS OF SYSTEMS AFFECTED: 87 UH-1Ns, 8 reclamation a/c, 4 trainers, 4 lab units | TYPE MODIFICATION: SAFETY

DESCRIPTION/JUSTIFICATION: Operational Requirements Document (ORD) AAS-51 states that the UH-1N requires a Navigational Thermal Imaging System (NTIS) to provide the U.S. Marine Corps with a night/day warfighting capability in the NOE/smoke/dust/haze environment. This capability reduces the safety risk by allowing the aircrew to see and avoid flight obstructions and locate targets that might not be visible with the naked eye or night vision goggles. The AN/AAQ-22 is a low cost, stabilized system which provides the required capability in the form of high quality real time imagery displayed into the UH-1N aircraft cockpit. The NTIS System is comprised of 5 components; Turret FLIR Unit (TFU), Central Electronics Unit (CEU), Hand Control Unit (HCU), Thermal Image Recorder (TIR), and the Video Display Unit (VDU). The NTIS is installed only in the UH-1N aircraft by AFC 278. The system also includes a Laser Range Finder (LRF) to determine the range to landmarks, targets, and tactical points of interest. Beginning FY97, the NTIS was upgraded from 1st generation to 3rd generation Forward Looking Infrared (FLIR) technology. The COTS Star SAFIRE modification consisted of a 3-5 micron focal plane array detector, an eye safe LRF and new optics. Additionally, the NTIS will be upgraded with a new Thermal Imaging Recorder (TIR) with mount and a Flat Panel Display replacement for the VDU due to a fire hazard. Additional modifications to the NTIS are being incorporated in order to add a COTS Laser Designator/Laser Pointer capability (BRITE Star I/II). Laser designator capability is a threshold ORD requirement. The Laser Pointer capability is an ORD objective requirement. BRITE Star I/II "P" Kits are "O" level installed mission kits. Additional upgrades to the VDU will also be investigated.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The NTIS is a commercial off-the-shelf (COTS) item. MIL-STD-810C testing is complete. DT-III testing was completed in the fourth quarter 1994 and FOT&E was completed in the second quarter FY 1996. Additional testing occurred during fourth quarter 1998 for the NTIS upgrade. The completion of COTS post Milestone III testing of Laser Designator (BRITE Star) completed in FY03, intial fielding of BRITE Star I FY04 and continues in FY05. BRITE Star II development completes FY05, Test FY06, fielding scheduled FY07.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
AFC 278 ECP EJH HO 30006	105	2.6																				
AFC-334 TIR ECP#H-1-CP9-97R-1	105	0.1																				
AFC-364 (BRITE Star)	7	*	92	0.3	5	*																
Installation Kits N/R		3.4								0.2												
Installation Equipment																						
NTIS System (GFE)	84	29.7																				
TIR (GFE)	107	1.0																				
NTIS Upgrade	85	29.3																				
Flat Panel Display	90	0.8																				
BRITE STAR I	8	5.3	12	6.9	12	6.9	6	5.3														
BRITE STAR II									6	5.6												
Installation Equipment N/R		0.6																				
Engineering Change Orders																						
Data		0.5		*						0.1												
Training Equipment	2	0.6					3	0.6														
Support Equipment		1.1			2	*	4	0.1	4	0.1												
ILS		0.4		*		0.1		0.2		0.2												
Other Support		5.0		0.6		1.2		1.0		1.1												
Interim Contractor Support																						
Installation Cost	113	3.1	92	0.4	5	*																
Total Procurement		**83.4**		**8.3**		**8.2**		**7.2**		**7.2**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. FY04 NTIS Upgrade Procurement realigned to BRITE Star to continue FY03 BRITE Star Congressional Add.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **UH-1N**

MODIFICATION TITLE: UH-1N NAVIGATION THERMAL IMAGING SYSTEM (NTIS/BRITE STAR) (OSIP 31-92)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **INSTALLED AT INTER-SERVICE SDLM AND BY CONTRACTOR FIELD MOD TEAM**

ADMINISTRATIVE LEADTIME: 3 Months

PRODUCTION LEADTIME: 5 Months

CONTRACT DATES: FY 2004: Dec-03 FY 2005 Dec-04 FY 2006 N/A FY 2007: N/A

DELIVERY DATE: FY 2004: May-04 FY 2005 May-05 FY 2006 N/A FY 2007: N/A

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (113) kits	113	3.1																				
FY 2004 (92) kits			92	0.4																		
FY 2005 (5) kits					5	*																
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
To Complete () kits																						
TOTAL	113	3.1	92	0.4	5	*																

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	113			63	29			2	3																
Out	113				63	29		2	3																

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	TOTAL
In										
Out										

Exhibit P-3a — Individual Modification

MODIFICATION TITLE: AN/APR-39A(V) 2 WARNING RECEIVER SYSTEM (OSIP 15-98)

MODELS OF SYSTEMS AFFECTED: UH-1N — TYPE MODIFICATION: SURVIVABILITY

DESCRIPTION/JUSTIFICATION: H-1 Operational Requirements Document (ORD) AAS-51 states the requirement for an integrated Electronic Warfare Suite with automatic threat response that includes missile warning, increased expendable capacity, radar/plume detection, reduced IR signature, reduced vulnerability/susceptibility to radar threats. The APR-39A(V)2 is a low-cost, light weight programmable RWR which provides warning of radar guided Surface-to-Air Missiles and AAA, as well as Air-to-Air threats to low/slow flying aircraft. Additionally, the RWR serves as the Electronic Warfare (EW) data-bus controller and provides a centralized control and display for other components in the EW suite. The upgraded integrated Electronic Warfare Suite installed as part of this OSIP consist of the AN/APR-39A(V)2 (upgraded software), AN/AAR-47(V)2 Laser/Missile Warning System, AN/ALE-47 Flare and Chaff system, and sensors, antennas, indicators, display units, receivers, processors, launchers and dispensers. Additional improvements to increase reliability and reduce maintenance requirements for systems that reduce vulnerability, including the AN/ALQ-144, to Missile, IR and Laser threats will also be accomplished.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: All DT and individual system OT is complete. The AN/APR-39A(V)2 was originally installed as part of AFC 240 pt II. To complete the integrated suite the AN/APR-39A(V)2 software upgrade, AN/AAR-47(V)2 and AN/ALE-47 are installed by AFCs 370 and 372. Complete integrated EW suite testing is in process. "A" kits and installations have been funded for 88 UH-1N A/C and are in process. "P" kits (GFE) are funded by PMA-272's Common ECM funding line.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits:																						
KIT AFC 240 Part II	103	0.6																				
KIT AFC-372 (ALE-47)	18	0.1	70	0.6																		
KIT AFC-370 (AAR-47(V)2)	18	0.1	70	0.5																		
Installation Kits N/R																						
Installation Equipment			3	0.8																		
Installation Equipment N/R																						
Engineering Change Orders																						
Data		0.2																				
Training Equipment		1.0																				
Support Equipment																						
ILS		0.2		*																		
Other Support		0.7																				
Interim Contractor Support																						
Installation Cost	102	0.7	140	0.9																		
Total Procurement		**3.6**		**2.7**																		

Notes:

1. Totals may not add due to rounding
2. Installations include 4 trainers.
3. Asterick indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **UH-1N** MODIFICATION TITLE: AN/APR-39A(V)2 WARNING RECEIVER SYSTEM (OSIP 15-98)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **CONTRACTOR FIELD MOD TEAM**

ADMINISTRATIVE LEADTIME: 5 Months PRODUCTION LEADTIME: 1 Months

CONTRACT DATES: FY 2004: Feb-04 FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: Mar-04 FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		**TOTAL**	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	**Qty**	**$**
FY 2003 & PY ( ) kits	102	0.7																				
FY 2004 ( ) kits			140	0.9																		
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	**102**	**0.7**	**140**	**0.9**																		

Note:

1. Installations include 4 trainers.

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	102		36	36	34	34																			
Out	102		36	36	34	34																			

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	TOTAL
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: H-1N SAFETY UPGRADES (18-98)

MODELS OF SYSTEMS AFFECTED: HH-1N/UH-1N | TYPE MODIFICATION: SAFETY

DESCRIPTION/JUSTIFICATION: Operational Requirements Document (ORD) AAS-51 requires that the following safety shortfalls be corrected. The HH/UH-1N helicopter fleet was designed in the 1960s, introduced in the 1970s and are projected to remain in the Department of Navy inventory until FY-2020. This program is designed to address safety issues, such as mishap casual factors associated with maintaining an older type model series aircraft. This safety upgrade program replaced the Tail Drive System (TDS). A COTS/NDI Improved Torque Indicator System will be added to provide a digital torque display to the aircrew to improve low power margin situational awareness. Tailboom Strake technology will be investigated to improve performance and reduce tailboom fatigue. Additionally, the overspeed Aural Alert Unit (AAU) will be modified. A modification to the CH-8500 Vibration Analysis Support Equipment (VASE) will also be needed. A COTS replacement Rotor Brake Quill (RBQ) assembly, component failures due to an obsolete design pose a significant risk to all aircrew, and Low Maintenance Battery (LMB) will be incorporated into all HH/UH-1N aircraft. Included in this OSIP is the requirement to correct the safety deficiencies of the Defensive Armament System (DAS): machine guns, carriages, mounts, and associated equiptment. Improvements and enhancements to airframe Night Vision Goggle (NVG) compatability along with communications equipment for external agency interaction during the Global War on Terrorism. A/C fatigue life issues and mitigating technology will be investigated to improve performance and mitigate aircraft fatique. Incorporation of Crash Attenuating Seat Cushions, to reduce reduce the likelyhood of back injuries to pilots during hard landings or crashes, will be also investigated for modification.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: These upgrades are proprietary, non-developmental items used in other BHTI produced military and FAA certified commercial helicopters.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
ECP # BHTI-1710 (TDS)	131	6.3																				
ECP# HI-CP-24-99 Rotor Brake Quill	136	1.6																				
ECP# HI-CP-19-98 Aural Alert Unit	103	Note #3																				
Smart Torque Indicator	68	1.0	200	2.3																		
ECP# NAWCWD 97GG023R2 M240	210	0.1																				
ECP# 98-002 GAU-17 Gun Ctrl Unit	79	0.3																				
ECP#98-0014 IDAS Mounts	110	0.7																				
Tailboom Strakes	119	4.0																				
Installation Kits N/R		1.3																				
Aural Alert Unit Install. Equipment	103	0.6																				
Engineering Change Orders		*																				
Data		0.7		*																		
Training Equipment	4	1.3																				
Support Equipment	100	0.4																				
ILS		1.0																				
Other Support		5.6		0.1		0.2		0.2		0.2												
Interim Contractor Support																						
Installation Cost	229	0.8																				
Total Procurement		**25.6**		**2.4**		**0.2**		**0.2**		**0.2**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. Aural Alert Unit Installation Kit Cost included in Aural Alert Unit Installation Equipment cost.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **HH-1N/UH-1N** MODIFICATION TITLE: H-1N SAFETY UPGRADES (OSIP 18-98)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **CONTRACTOR FIELD TEAM AND ORGANIC MOD TEAM**

ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2004: FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		**TOTAL**	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	**Qty**	**$**
FY 2003 & PY (229) kits	229	0.8																				
FY 2004 ( ) kits																						
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete () kits																						
TOTAL	**229**	**0.8**																				

Installation Schedule reflects 103 AAUs and 126 TDS.

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	229																								
Out	229																								

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	TOTAL
In										
Out										

BUDGET ITEM JUSTIFICATION SHEET P-40					DATE: February 2005							
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/APN-5 Aircraft Modifications			P-1 ITEM NOMENCLATURE EP-3 Series Modifications									
Program Element for Code B Items:			Other Related Program Elements									
	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
QUANTITY												
COST (In Millions)	399.8		49.9	33.6	55.1	56.8	28.6	29.9	30.5	31.2		715.3

This line item funds modifications to the EP-3E aircraft. The EP-3E is a land based, long range aircraft, with electronic intercept devices for detection and tracking of enemy RADARs and radios. The overall goal of the modifications budgeted in FY2006 is to procure Force Net (Spiral 1) kits and begin procurement of Precision Targeting (Spiral 2) kits. The Spiral 1 kit improves operational capability and aircrew productivity by expanding the ESM frequency coverage, apply state-of-the-art signal exploitation/processing/display techniques, expanding direction finding (DF) frequency coverage, off-board classified communication, and expanding special signal processing capability. Spiral 2 kits provide for improved information fusion/decision-making and electronic attack capabilities.

Research and Development is funded with National Security Agency (NSA) Defense Cryptologic Program (DCP) funds and ASDC4I Defense Airborne Reconnaissance Program (DARP). DCP R&D funds the integration of Non-Developmental Items (NDI) under the Navy's Airborne Sensor System Improvement line. The NSA line for Navy Airborne Sensor System improvement funds sensor improvements with application to the EP-3E. DCP R&D PE: 0305885G refers. DARP R&D funds are responsible for the development and acquisition of EP-3E sensors, data links, data relays, and ground stations to achieve and maintain interoperability with Defense-wide airborne reconnaissance assets. Active PAA inventory is 12 with a BAA inventory of 4 for a total of 16 aircraft at the end of OSIP 29-00. Funds budgeted in FY2006 are to continue Joint Airborne SIGINT Architecture (JASA) Modification Program (JMOD). The EP-3E has an average service life of 29.5 years, with the first EP-3 aircraft reaching end of service life in 2010. The EP-3E service life will be managed through Special Structural Inspections (SSI-Ks) beyond JMOD baseline Full Operational Capability (FOC).

OSIP No.	Description	Prior Years	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	Complete	Total
14-95	EP-3 Sensor Improvement	142.8										142.8
29-00	P-3C to EP-3E Conversion Program	169.4										169.4
	DERF (non-add)	75.0										
11-01	JASA Modification (JMOD)	87.6	49.9	33.6	55.1	56.8	28.6	29.9	30.5	31.2		403.1
	DERF (non-add)	15.0										
TOTAL		399.8	49.9	33.6	55.1	56.8	28.6	29.9	30.5	31.2		715.3

FY-02 Defense Emergency Response Funds (DERF) in the amount of $75.0 augments OSIP 29-00 and $15.0 augments OSIP 11-01.
FY-03 Defense Emergency Response Funds (DERF) in the amount of $22.5 augments OSIP 11-01.

Note: Totals may not add due to rounding.

Exhibit P-3a INDIVIDUAL MODIFICATION

MODIFICATION TITLI EP-3 Sensor System Improvement (OSIP 14-95)

MODELS OF SYSTEM AFFECTED: EP-3E TYPE MODIFICATION: Operational Improvement / Modernization

DESCRIPTION/JUSTIFICATION:

This Sensor System Improvement Program (SSIP) responds directly to Operational Requirement (OR) #057-095-87 and CAF-002-88. The program procures, integrates, and installs new capabilities into the EP-3 Electronic Warfare Support Measures (ESM) weapon system to cope with the increasingly complex and dense threat environment. The required improvements in productivity will be achieved by applying state-of-the-art signal exploitation/processing/display technique, and expanding Program signal processing capability. Tactical communications connectivity improvements include TRE Related Applications (TRAP), Tactical Digital Information Exchange System-B (TADIXS-B), Tactical Digital Information Link-A and -J (TADIL-A and -J), Tactical Information Broadcast Services (TIBS), Tactical Reconnaissance Information Exchange System (TRIXS), USN/USAF Advisory Support Network (ASN) Intelnet, DAMA-capable radios, and an upgrade to the OE-320 antenna suite. Integration and testing in the EP-3 Integrated Test Facility (ITF) prior to installation in the first production aircraft ensured integrated system functional integrity. The SSIP provides the hardware and software essential for timely situational analysis and reporting to the fleet tactical commands. The Congressional plus-up for LESPA included NRE for qualifying LESPA parachutes in both EP-3E and Special Project Aircraft. Procurement of parachutes was limited to the EP3E requirement in this OSIP. Another Congressional plus-up for enhanced signal exploitation/processing is achieved by Low Probability of Intercept/Specific Emitter Identification (LPI/SEI).

This OSIP addresses 12 aircraft. Nine of the eleven EP-3E aircraft service lives end during FY04 through FY08.

In accordance with the approved Acquisition Strategy Review (ASR) dated 3 May 2001, program changes necessitated the replacement of JMOD MOD1 with Baseline Update. Baseline Update incorporates Joint Airborne Signals Intelligence (SIGINT) Architecture (JASA) compliant infrastructure with SSIP and Quick Response Capability (QRC) functional improvements into the Trial Kit Installation (TKI) aircraft.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Initial testing at the Integrated Test Facility (ITF) was completed in the 2nd quarter of FY95. Based on this testing and an early operational assessment by COMOPTEVFOR, PEO(A) approved the production procurement of the first two system installs of SSIP Phase I. Production approval was based on follow-on qualification testing at the ITF and a COMOPTEVFOR operational assessment completed in the 2nd quarter FY96. DT was completed end of 3rd quarter FY00. OT was completed early 4th quarter FY00. The JMOD Baseline Update is required in order to ensure the JMOD TKI aircraft has the same baseline configuration and capabilities as SSIP and QRC fleet assets. Fleet introduction occurred 4th quarter FY00. The initial phase of the LPI/SEI contract was awarded 2nd quarter FY02, and the final portion was awarded 4th quarter.

Exhibit P-3a

Exhibit P-3a INDIVIDUAL MODIFICATION

MODIFICATION TITLE: EP-3 Sensor System Improvement (OSIP 14-95)

MODELS OF SYSTEM AFFECTED: EP-3E TYPE MODIFICATIO Operational Improvement / Modernization

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
SSIP	12	5.4																				
LESPA	12	1.1																				
OE-320	12	.3																				
TADIL-J (Link-16)	12	1.2																				
LPI/SEI	12	1.0																				
Baseline Update	1	3.1																				
Installation Kits N/R		10.3																				
Installation Equipment																						
Storyteller	10	11.1																				
Story Book	10	14.3																				
Story Classic	10	11.7																				
IP-1159 Replacement	10	5.0																				
LESPA	12	1.0																				
OE-320 Upgrade	12	1.8																				
TADIL-J (Link-16)	12	4.0																				
HBP Equipment		1.2																				
LPI/SEI	12	8.7																				
Baseline Update	1	6.7																				
Installation Equipment N/R																						
Engineering Change Orders																						
Data		8.3																				
Training Equipment		2.5																				
Support Equipment		1.5																				
ILS		7.8																				
Testing		1.0																				
Other Support		19.3																				
Interim Contractor Support																						
Installation Cost	43	14.4																				
TOTAL PROCUREMENT	150	142.8																				

Notes:
1. Totals do not add due to rounding
2. Asterisk indicates amount less than 51K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: EP-3E MODIFICATION TITLE: EP-3 Sensor System Improvement (OSIP 14-95)

INSTALLATION INFORMATION: LESPA/OE-320/TADIL-J (Link-16)/Baseline Update

METHOD OF IMPLEMENTATION: Commercial Contractor Depot Installation

ADMINISTRATIVE LEADTIME: 8 Months PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2004: FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (37) kits	* 37	2.1																				
FY 2004 () kits																						
FY 2005 () kits																						
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
To Complete () kits																						
TOTAL	* 37	2.1																				

* Includes twelve (12) LESPA; six (6) OE-320 "O" level installs; one (1) baseline update and six (6) OE-320s and twelve (12) TADIL-J (Link-16) installations.

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& PRIOR	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	37																								
Out	37																								

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	TOTAL
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: EP-3E MODIFICATION TITLE: EP-3 Sensor System Improvement (OSIP 14-95)
LPI/SEI (SP-160) (Congressional Add Project)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Commercial Contractor Installation

ADMINISTRATIVE LEADTIME: 8 Months PRODUCTION LEADTIME: 24 Months

CONTRACT DATES: FY 2004: ____ FY 2005: ____ FY 2006: ____ FY 2007: ____

DELIVERY DATE: FY 2004: ____ FY 2005: ____ FY 2006: ____ FY 2007: ____

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (12) kits	12	1.2																				
FY 2004 () kits																						
FY 2005 () kits																						
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
To Complete () kits																						
TOTAL	12	1.2																				

Installation Schedule

	FY 2003 & PRIOR	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	12																								
Out									2			4	4	2											

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	TOTAL
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: EP-3E

MODIFICATION TITLE: EP-3 Sensor System Improvement (OSIP 14-95) SSIP

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Commercial Contractor Installation

ADMINISTRATIVE LEADTIME: Months

PRODUCTION LEADTIME: Months

CONTRACT DATES: FY 2004: FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (12) kits	12	11.0																				
FY 2004 () kits																						
FY 2005 () kits																						
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
To Complete () kits																						
TOTAL	12	11.0																				

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& PRIOR	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	11																								
Out	11																								

	FY 2010				FY 2011				To	TOTAL
	1	2	3	4	1	2	3	4	Complete	
In										
Out										

Note: Eleven (11) installations reflect fleet reduction due to Crete mishap.

Exhibit P-3a INDIVIDUAL MODIFICATION

MODIFICATION TITLE P-3C to EP-3E Conversion Program (OSIP 29-00)

MODELS OF SYSTEM AFFECTED: EP-3E TYPE MODIFICATION: Operational Improvement / Modernization

DESCRIPTION/JUSTIFICATION:

The P-3C to EP-3E Conversion Program, designated as a No ACAT program, converts five P-3C aircraft to EP-3E aircraft. This OSIP responds to primary and backup EP-3E inventory requirements in VQ-1/2 Required Operational Capabilities Projected Operational Environment (ROC/POE) dated 9 Feb 2000, OPNAVINST 5442.8, and CNO letter Ser N880G10/0U661331 dated 30 May 00. Primary Aircraft Authorization (PAA) of 12 aircraft are required to perform operational missions. Backup Aircraft Authorization (BAA) of four aircraft (i.e., pipeline) are required to permit scheduled and unscheduled maintenance, modifications, inspections and repair without reduction of aircraft available for operational missions. The OSIP also addresses mission avionics requirements in Operational Requirement (OR) #057-095-87 and the CAPSTONE ORD (CAF-002-88). The first conversion replaces an EP-3E damaged in a 1997 mishap and struck from the PAA inventory. The second, third, fourth and fifth conversions are pipeline aircraft.

This program was developed to maximize procurement efficiency by grouping the aircraft versus individual buys. Funding in FY00 covered NRE for the initial three aircraft. Funding in FY01 procured two aircraft while FY02 funding procures three aircraft and ARIES II/SSIP Obsolescence Risk Mitigation NRE. Four aircraft were procured under the same contract in a configuration sufficient for induction into the JMOD program (OSIP 11-01), and the fifth aircraft was configured as a JMOD aircraft. FY01 Intelligence Program Decision Memorandum (IPDM) moved funding for the second pipeline aircraft from FY03 to FY02.

This OSIP includes $60.0M in Defense Emergency Response Funding (DERF) for an additional conversion aircraft and $15.0M for PR-32 avionics replacements/repairs. PR-32 avionics was installed during the SSIP modification.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

This program is a post-Milestone III, based on SSIP Milestone III dated 29 March 1996. The NRE contract was awarded in Feb 2001. The production contract for the replacement and first pipeline aircraft was awarded in September 01. The FY02 option for the second through fourth pipeline aircraft was exercised in the 2nd quarter FY02.

Exhibit P-3a INDIVIDUAL MODIFICATION

MODIFICATION TITL P-3C to EP-3E Conversion Program (OSIP 29-00)

MODELS OF SYSTEM AFFECTED: EP-3E TYPE MODIFICATION: Operational Improvement / Modernization

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
REPLACEMENT AIRCRAFT	1	11.0																				
PIPELINE AIRCRAFT	3	35.7																				
DERF AIRCRAFT	1	16.4																				
CROSSDECK AIRCRAFT																						
Installation Kits N/R		17.2																				
Installation Equipment																						
REPLACEMENT AIRCRAFT		**																				
PIPELINE AIRCRAFT	3	44.5																				
DERF AIRCRAFT	1	20.6																				
DERF PR-32 AVIONICS	1	14.4																				
CROSSDECK AIRCRAFT																						
Installation Equipment N/R		5.9																				
Engineering Change Orders																						
Data		.9																				
Training Equipment																						
Support Equipment		.5																				
Testing		1.0																				
ILS		2.0																				
Other Support		4.1																				
Interim Contractor Support																						
Installation Cost	5	70.3																				
TOTAL PROCUREMENT	10	244.4																				

Notes:

1. Totals do not add due to rounding
2. Asterisk indicates amount less than 51K

** Replacement aircraft B Kit to be crossdecked from crash-damaged aircraft

NOTE: One (1) replacement and four (4) pipeline aircraft will be procured in a JMOD configuration.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: EP-3E

MODIFICATION TITLE: P-3C to EP-3E Conversion Program
Replacement/Pipeline/DERF Aircraft

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Commercial Contractor Installation

ADMINISTRATIVE LEADTIME: 8 Months

PRODUCTION LEADTIME Various Months
CROSSDECK AIRCRAFT: Various Months

CONTRACT DATES: FY 2004: FY2005: FY2006 FY2007:

DELIVERY DATE: FY 2004: FY2005: FY2006 FY2007:

($ in Millions)

Cost:	Prior years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (5) kits	5	70.3																				
FY 2004 () kits																						
FY 2005 () kits																						
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
To Complete () kits																						
TOTAL	5	70.3																				

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4*	1**	2	3***	4****	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	5																								
Out					1	1		1	2																

	FY 2010				FY 2011				To	TOTAL
	1	2	3	4	1	2	3	4	Complete	
In										
Out										

* Replacement aircraft (1)
** Pipeline #1 aircraft (1)
*** Pipeline #2 aircraft (1)
**** Pipeline #3/DERF aircraft (2)

Exhibit P-3a | INDIVIDUAL MODIFICATION

MODIFICATION TITLE: EP-3E Joint Airborne SIGINT Architecture (JASA) Modification Program (JMOD) (OSIP 11-01)

MODELS OF SYSTEM AFFECTED: EP-3E | TYPE MODIFICATION: Operational Improvement / Modernization

DESCRIPTION/JUSTIFICATION:

In FY05, the JMOD Baseline was restructured to the original JMOD program that brings all EP-3E platforms into a single configuration on an accelerated timetable. JMOD Baseline incorporates 60% of JMOD 1 components into the existing EP-3E backbone and accelerates critical elements of JMOD 2 and 3 via spirals. JMOD Baseline also includes various Quick Reaction Capabilities and OEF/OIF installs and addresses mission avionics obsolescence. This OSIP was restructured to fund the acceleration of JMOD 2 and JMOD 3 capabilities by three years by incorporating their capabilities into the ForceNet and Sea Strike spirals. ForceNet capabilities are procured via Spiral 1 in FY05 and FY06. Sea Strike capabilities will be procured via Spiral 2 in FY06 and FY07. The final Spiral 2 kit will be procured in FY10. FY04 funding procured existing backbone required to bring the five conversion aircraft to the configuration necessary to receive JMOD Baseline. This OSIP addresses a PAA of 12 EP-3E aircraft. The QRC funds in FY08 through FY11 addresses new requirements from national and theater commanders in response to rapidly evolving emergent threats.

The EP-3E JASA Modification (JMOD) Program began as an upgrade to the capabilities of the Sensor System Improvement Program (SSIP) configuration of the EP-3E. This OSIP responds to Operational Requirement Document (ORD) #571-78-01 and the CAPSTONE ORD (CAF-002-88). JMOD was designed as an evolutionary acquisition program consisting of three block mods. MOD 1 updated the EP-3E infrastructure, improved auto-ESM with the Story Finder system, incorporated Joint Signal Processor (JSP), incorporated SSIP corrections, and incorporated Quick Response Capabilities (QRC) (including the SINCGAR upgrade and IR Strobes modifications) into JMOD. MOD 2 was planned to incorporate a low band capability which improves special collection capability and add the Common Data Link (CDL) allowing the EP-3E to serve as a network-centric airborne SIGINT collection element capable of sharing data with ground, air, and ship-based operators. MOD 3 would have incorporated precision targeting. The Baseline Update to MOD 1 was required to ensure the JMOD TKI aircraft had the same baseline configuration and capabilities as SSIP and QRC fleet assets. The twelve EP-3E aircraft (PAA) will be managed through Special Structural Inspections (SSI-Ks) beyond JMOD Baseline Full Operational Capability (FOC).

This OSIP includes the following Congressional Plus-ups: in FY02 for Hyperwide/Deltawing and VME Tuners; in FY03 for Radio Frequency Distribution (RFD) Upgrades, JMOD 1 Upgrades and SIGINT Tuner; in FY04 for JMOD Upgrades ($10.8M), RFD Upgrades ($2.4M), VME Tuners ($7.7M), and Tactical Communications Systems Upgrades ($3.4M); and in FY05 for JMOD Sustainment/Common Configuration Initiative ($5.4M). This OSIP includes $15.0M in FY02 Defense Emergency Response Fund (DERF) funding for SIGINT.

Beginning in FY03 and continuing in FY05 through FY07, the EP-3E platform received funding for COMINT/ELINT upgrades. The FY05-FY07 COMINT/ELINT upgrades funding has been incorporated into the JMOD Baseline.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Increment 1 (the JMOD baseline configuration) Milestone III decision occured 4th Qtr FY04 based on completion of OT, demonstration of Key Performance Parameters (KPP's) and a DT Assist on the Story Finder subsystem. A Spiral 1 LRIP decision is scheduled for 2nd Qtr FY05 based on completion of the Design Readiness Review (DRR) and contractor testing. Spiral 1 is scheduled for OT 1st Qtr FY06. Spiral 2 LRIP is scheduled for 3rd Qtr FY06 based on completion of the DRR and contractor testing. Spiral 2 OT is scheduled for 1st Qtr FY07.

Exhibit P-3a INDIVIDUAL MODIFICATION

MODIFICATION TITLI EP-3E Joint Airborne SIGINT Architecture (JASA) Modification Program (JMOD) (OSIP 11-01)

MODELS OF SYSTEM AFFECTED: EP-3E TYPE MODIFICATION Operational Improvement / Modernization

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E (H2694)				11.9		10.0		27.9		17.7												
PROCUREMENT																						
Installation Kits																						
BLOCK MOD 1	3	4.0																				
VME Tuners	2	1.1																				
IR STROBES MOD	10	.2																				
SINCGARS Upgrade	16	.4																				
COMINT/ELINT Upgrades		1.9																				
RFD Upgrades	4	.4																				
JMOD Baseline			5	4.5	4	4.0	10	11.0	9	12.5												
Installation Kits N/R		3.8		.9		1.0				.1												
Installation Equipment																						
BLOCK MOD 1	3	11.1																				
VME Tuners	2	2.3	4	7.7																		
IR STROBES MOD	10	.1																				
SINCGARS Upgrade	16	.6																				
DERF SIGINT		14.2																				
COMINT/ELINT Upgrades		7.2																				
RFD Upgrades	4	2.0	5	2.4																		
JMOD Upgrades			5	10.8																		
Tactical Comms System Upg			16	3.4																		
JMOD Baseline			5	3.5	4	12.0	10	32.1	9	32.8												
QRC																						
Installation Equipment N/R		21.8		2.2		4.4				.3												
Engineering Change Orders																						
Data		1.4		2.4		1.4				1.1												
Training Equipment		2.5		1.7		1.4		.9		1.4												
Support Equipment		1.6		.2		.2		.2		.2												
Testing		7.7		1.9		3.0		1.1		2.1												
ILS		5.0		1.9		2.4				.5												
Other Support		10.9		4.3		2.1		1.9		1.9												
Interim Contractor Support																						
Installation Cost	31	2.4	5	2.2	2	1.6	10	8.0	2	4.0												
TOTAL PROCUREMENT	70	102.6	40	49.9	8	33.6	20	55.1	18	56.8												

Notes:

1. Totals do not add due to rounding
2. Asterisk indicates amount less than 51K
3. Two JMOD 1 kits are funded under the Conversion OSIP (29-00) and one JMOD 1 kit was funded as an R&D TKI.
4. FY08 through FY11 QRC B kit quantities vary due to histo emergent threat requirements and will be O-level installation

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: EP-3E

MODIFICATION TITLE: EP-3E Joint Airborne SIGINT Architecture (JASA) Modification Program (JMOD) (OSIP 11-01)
JMOD Installations/JMOD Baseline

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Commercial Contractor Installation/O-level

ADMINISTRATIVE LEADTIME: 4 Months

JMOD PRODUCTION LEADTIME: 5 Months

CONTRACT DATES: FY 2004: 2/04 FY 2005: 4/05 FY 2006: 1/06 FY 2007: 1/07

DELIVERY DATE: FY 2004: 8/04 FY 2005: 9/05 FY 2006: 6/06 FY 2007: 6/07

($ in Millions)

Cost:	Prior years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (4) kits *	1	.5																				
FY 2004 (5) kits **			5	2.2																		
FY 2005 (4) kits					2	1.6	2	1.6														
FY 2006 (10) kits							8	6.4	2	4.0												
FY 2007 (9) kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
To Complete () kits																						
TOTAL	1	.5	5	2.2	2	1.6	10	8.0	2	4.0												

* Three (3) JMOD kits installed into Conversion aircraft (OSIP 29-00).

** Installation efforts for FY04 Congressional Plus Ups will be concurrent with the JMOD Baseline installations or Special Structural Inspections (SSIs).

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4*	1	2	3*	4*	1	2	3**	4	1	2	3**	4**	1	2**	3**	4**
In	1				5				2			8	2			2									
Out	1				5					2		4	4	2			1								

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	TOTAL
In										
Out										

* JMOD Baseline Spiral 1
** JMOD Baseline Spiral 2

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: EP-3E

MODIFICATION TITLE: EP-3E Joint Airborne SIGINT Architecture (JASA) Modification Program (JMOD) (OSIP 11-01) IR Strobes Mod / SINCGARS Upgrade / COMINT/ELINT/RFD Upgrades/SIGINT Tuner

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Commercial Contractor Installation

ADMINISTRATIVE LEADTIME: 1 Months

PRODUCTION LEADTIME: 3/12 Months

CONTRACT DATES: FY 2004: FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (31) kits *	31	1.9																				
FY 2004 () kits																						
FY 2005 () kits																						
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
To Complete () kits																						
TOTAL	31	1.9																				

* Quantities vary in FY03 for COMINT/ELINT. Congressional Plus up for 4 RFD Upgrades and 1 Tuner are funded in FY03.

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	31																								
Out	26			4	1																				

	FY 2010				FY 2011				To	TOTAL
	1	2	3	4	1	2	3	4	Complete	
In										
Out										

* RFD Upgrades will be installed into 4 Conversion aircrafts.

** SIGINT Tuner will be installed into a Conversion aircraft.

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET P-40				DATE: February 2005								
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/APN-5 Aircraft Modifications				P-1 ITEM NOMENCLATURE P-3 Series Modifications								
Program Element for Code B Items:				Other Related Program Elements								
	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
QUANTITY												
COST (In Millions)	2,275.3		141.5	155.3	163.3	165.3	135.0	200.5	178.1	104.7	1,892.3	5,411.4

This line item funds modifications to P-3 aircraft. The P-3 Orion is a 4 engine, long-range maritime surveillance aircraft which performs Under Sea Warfare (USW), Surface Warfare (SW) and Intelligence, Surveillance and Reconnaissance (ISR) in support of battle group and littoral operations in direct support of Sea Shield and Forcenet pillars of Seapower 21.

As a direct result of the 7 June 2003 Maritime Patrol and Reconnaissance (MPRA) offsite, the P-3 Sustainment Bridge was approved by the CNO. This resulted in P-3C inventory levels being reduced from 227 to 148. The foundational element of this bridge was optimizing the P-3 fleet by investing manpower, AVDLR and Flying Hour Program (FHP) savings into the resulting smaller P-3 force to produce a better productive ratio of aircraft. This investment allows the P-3 force to be smaller, more ready and more capable. A key investment area is P-3 Mod Programs. Funding for these programs support a multitude of obsolescence, structural, sustainment, training/logistics and warfighting capability upgrades that are key in keeping the P-3 platform relevant through Multi-mission Maritime Aircraft (MMA) Initial Operational Capability (IOC) of 2013 and until the MMA Full Operational Capability (FOC) of 2019. P-3 aircraft mods funded under the APN line have heavily supported recent and current Operation Enduring Freedom (OEF), Operation Iraqi Freedom (OIF) and Global War on Terrorism (GWOT) operations. Without key technology upgrades and aggressive obsolescence management, P-3 aircraft will be unable to meet Fleet Response Plan (FRP) requirements, leaving key Seapower 21 capabilities in support of the Combatant Commanders at risk. This P-3 Sustainment Bridge provides a roadmap for the next 15 years, ensuring sufficient P-3 assets for Fleet and Combatant Commanders to fulfill operational and training/readiness requirements.

The overall goal of the modifications budgeted in FY2006 is to continue: AIP installs, USQ-78 improvements (part of Update III), comm/nav/surveillance weapon system improvements, upgrades/modifications to airframe components/systems, safety improvements and key system obsolescence upgrades. Total P-3C aircraft inventory will be 148 by the end of FY-06. The P-3C has an average service life of 29.5 years. The specific modifications budgeted and programmed are:

(TOA, $ in Millions)

OSIP No.	Description	Prior Years	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
80-84	Update III Block Upgrade	1054.8	16.8	30.0	39.4	36.2	5.3					1182.5
53-85	Critical Systems Improvements	29.1	3.2	3.0	0.4	0.9	0.4	0.4	0.4	0.4		38.3
60-86	UHF/VHF Comm. Update	119.0										119.0
42-92	Counter Narcotics Improv Prog	6.4										6.4
29-94	ASUW Improv. Prog.	1034.0	94.9	67.2	11.9	8.2	5.5	48.3	49.8	60.5	1636.0	3016.3
13-01	CNS/ATM	32.0	12.2	14.1	21.7	20.6	15.5	14.7	13.8	8.1		152.7
04-04	P-3 Critical Obsolscence Program		14.5	22.9	43.7	43.7	42.1	46.2	39.8	35.7	256.3	544.8
05-05	P-3/EP-3 Special Structural Inspection Kits			18.1	46.2	55.6	66.2	91.0	74.4			351.5
TOTAL		2275.3	141.5	155.3	163.3	165.3	135.0	200.5	178.1	104.7	1892.3	5411.4

* Indicates value less than $51,000.
Totals may vary due to rounding

CLASSIFICATION:

Exhibit P-3a | INDIVIDUAL MODIFICATION

MODIFICATION TITLE: Update III Block Upgrade (OSIP 80-84)

MODELS OF SYSTEM AFFECTED: P-3C | TYPE MODIFICATION: Operational Improvement

DESCRIPTION/JUSTIFICATION:

The Update III Common Configuration program provides improved P-3 anti-submarine warfare (ASW) capability for surveillance, search, detection, localization, classification and attack. It is essential for submarine prosecution in average and poor water conditions in support of the Sea Shield/Sea Power 21.
The program is comprised of two efforts: Block Modification Upgrade Program (BMUP) and the AN/USQ-78(V) Acoustic Processor Upgrade.
The initial BMUP modified older P-3's to an Update III common configuration (complete). Follow-on BMUP efforts will continue to modernize obsolete legacy UIII sensors, avionics and communications systems.
FY06/07 objectives of the AN/USQ-78 Acoustic Processor Upgrade/Tech Insertion are: (1) Processing growth to meet emerging under-sea threats and Fleet ASW requirements for multi-static acoustic sensor processing (e.g., Extended Echo Ranging [EER] family), active acoustic sensor processing (e.g., DICASS) and passive acoustic sensor processing (e.g., ADR, DIFAR); (2) correct functionality, display and control shortcomings of the USQ-78(V) as identified by the Fleet Operational Advisory Group and by Operational Test and Evaluation; (3) provide for future workload sharing capability as directed by Chief Naval Operations (CNO) and; (4) Obsolescence Management for the life of the P-3 aircraft.

The Update III Common Configuration program is based on Decision Coordinating Paper W-080-AS and the Program Management Plan #0526 serial 902D/6U324405.
Up to 100 aircraft and 5 trainers to be modified.

FY-02 SEI Congressional Plus-up provides associated NRE, 8 units, and installs as initial integration of new capability.
FY-02 Congressional Plus-up provides NRE for Acoustic Data Recorder-Digital (ADR-D) input enhancements, a prototype digital model (EDM) and 31 ADR-D upgrade kits.
FY-03 Congressional Plus-up provides associated NRE for 8 units to upgrade and install (ALR-95).
FY-03 Congressional Plus-up provides 10 additional ADR-D kits with some NRE for obsolescence issues.
FY-03 Congressional Plus-up for USQ-78(V) will be used to upgrade existing USQ78(V) hardware for technical refresh and End of Life (EOL) requirements.
FY-04 Congressional Plus-up upgrades the ADR tape transport to a hard drive configuration for reliability and maintainability.
FY-05 Congressional Plus-up upgrades the ADR tape transport to a hard drive configuration for reliability and maintainability.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Update III received approval for limited production in December 1983 and December 1984. Approval for full production was received in

Exhibit P-3a INDIVIDUAL MODIFICATION

MODIFICATION TITLE: Update III Block Upgrade (OSIP 80-84)

MODELS OF SYSTEM AFFECTED: P-3C TYPE MODIFICATION Operational Improvement

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
Prior Year Kits	434	72.5																				
MK-50 Kits	147	4.0																				
USQ-78(V) Kits	53	9.0	2	.5	14	3.5	17	4.0	14	3.3												
Block Mod Upgrade Kits	8	9.9																				
Installation Kits N/R		64.5																				
Installation Equipment																						
Prior Year Equipment	1,181	349.8																				
USQ-78V Processor Upgra	25	1.3																				
USQ-78 Tech Insertion									105	11.5												
CP-2044/ASQ CPU Equip	121	64.1																				
System Controllers					28	5.0	25	4.4														
USQ-78(V)/CHRDS Equip	53	83.7	2	2.1	14	14.6	17	17.7	14	14.6												
CHRDS Equip	4	.1																				
Block 1C Harpoon Equip	148	5.1																				
AN/ASH-33/RDDS	221	24.3																				
Common CONFIG Equip	36	65.4																				
PEP Equip	25	6.4																				
DASD/DASD Docks Equip	218	1.8	4	*	28	.3	34	.4	28	.3												
ADR/DDR		15.2		4.3		1.5																
SEI Cards		2.1																				
ESEI Hardware (ALR-95)		2.9																				
LESPA Equip		19.0																				

Notes:

1. Asterick indicates amount less than 51K

Exhibit P-3a

Exhibit P-3a INDIVIDUAL MODIFICATION

MODIFICATION TITLE: Update III Block Upgrade (OSIP 80-84)

MODELS OF SYSTEM AFFECTED: P-3C TYPE MODIFICATION Operational Improvement

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
Installation Equipment N/R		62.2		7.5		2.0		6.1														
Engineering Change Orders																						
Data		16.8																				
Training Equipment		17.6					5	3.0														
Support Equipment		1.6																				
ILS		3.6																				
Other Support		118.9		1.0		2.6		2.0		1.8												
Interim Contractor Support																						
Installation Cost	539	33.0	4	1.4	5	.5	35	2.0	144	4.8												
TOTAL PROCUREMENT	2,674	1,054.8	8	16.8	84	30.0	98	39.4	161	36.2												

Notes:
1. Totals do not add due to rounding
2. Asterick indicates amount less than 51K

Exhibit P-3a

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3C

MODIFICATION TITLE: Update III Block Upgrade (OSIP 80-84) USQ-78V

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Installation will be accomplished on-site by contractor field team

ADMINISTRATIVE LEADTIME: 4 Months

PRODUCTION LEADTIME: 18 Months

CONTRACT DATES: FY 2004: 10/03 FY 2005: 10/04 FY 2006: 10/05 FY 2007: 10/06

DELIVERY DATE: FY 2004: 4/05 FY 2005: 4/06 FY 2006: 4/07 FY 2007: 4/08

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2002 & PY (53) kits	38	2.2	4	1.4	5	.5	6	.7														
FY 2004 (2) kits							2	.3														
FY 2005 (14) kits									12	1.5												
FY 2006 (22) ***									8	.9												
FY 2007 (14) kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
To Complete () kits																						
TOTAL	38	2.2	4	1.4	5	.5	8	1.0	20	2.4												

** FY-08 funds installs in FY-09.

*** Includes 5 trainers

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	38	1	1	1	1	1	1	2	1	2	2	2	2	5	5	5	5								
Out	38	1	1	1	1	1	1	2	1	2	2	2	2	5	5	5	5								

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	TOTAL
In										
Out										

Completions same as inductions; one week effort.

- USQ-78A to be installed in trainers as depicted in the APN-5 install portion of the OSIP.

Exhibit P-3a INDIVIDUAL MODIFICATION

MODIFICATION TITLE: Critical Systems Improvements (OSIP 53-85)

MODELS OF SYSTEM AFFECTED: P-3C TYPE MODIFICATION Readiness

DESCRIPTION/JUSTIFICATION:

The purpose of this program is to provide the requisite funding to implant various minor cost effective changes to critical P-3 weapon systems. These changes are essential to the operation of the aircraft and/or it's mission systems, but are not currently being addressed by an existing aircraft modification program. The changes can be either airframe, avionic, or procedures.

SINGLE ARMAMENT CONTROL PANEL (SACP) ECP JAX P3-649: This ECP replaces existing 9622068 Wing Jettison/Special Weapon Control Box and the A-393 Pilot's Armament Control Box in 228 P-3C aircraft with the PEU-196/A Pilot's Armament Control Box.

KAPTON WIRING REPLACEMENT MOD ECP JAX P3-610: This ECP replaces the Kapton wiring in the wing trailing edge of P-3C aircraft. The initial program will modify 97 P-3C aircraft.

STRUCTURAL DATA RECORDING SYSTEM (SDRS) ECP SEI 196-1A: The SDRS (ASH-37) CCB was approved in June of 1994 to install the ASH-37 in all P-3C aircraft. The funding to procure and install the kits was provided by OSIP 5-93. The funding for SDRS ended in FY95. The task covered in this OSIP include SDRS Pubs, SDRS data reduction and installation of last 20 kits.

STANDBY ATTITUDE INDICATOR (PEANUT GYRO) ECP BFGAAS ID-1481A/A-25583-48: This ECP modifies the P-3C Standby Attitude Indicator (Peanut Gyro) to operate with a DC power vice an AC power. This modification is planned for 148 P-3C's and 3 trainers.

E-J RECEIVER MOD AN/ALR-66 B(V)3 ECP LITTON 970: The AN/ALR-66B(V)3 ECP upgrades certain components of the AN/ALR-66A(V)3 ESM to improve system performance, including the E-J Amplifier Receivers, CD Amplifier Receivers, Processor Interface and Computer Converter. The effort under this OSIP supports the modification and certain RIM in support of AN/ALR-66 B(V)3 installs on 145 P-3C aircraft, 6 operational trainers and 10 test bench installations.

APS-115 FEEDBALL MODIFICATION ECP CUBIC 2509-02F3: This ECP are liability and performance improvements to the APS-115 radar feedball. The unmodified feedballs are susceptible to burning out which decreased the APS 115 sensitivity (or caused failure) and made the feedball incompatible with the AN/ALR-66 B(V)3 ESM system, which uses the feedball as the center channel receiver. This modification will be installed in all APS-115 equipped aircraft. This modification effects 90 P-3C aircraft.

P-3 PILOT/COPILOT/ PLANE CAPTAIN SEAT MODIFICATION FOR THE MA-16 INERTIA REEL ECP JAX P3-519: MA-1 and MA-2 Inertia Reels are no longer available in the supply system and further procurement is anticipated. This ECP provides a kit to modify 50 Pilot/Copilot/Plane Captain seats to install the MA-16 Inertia Reel as a substitute for the MA-1/2 to meet outstanding requirements.

FOLLOW-0N KAPTON WIRING REPLACEMENT (WHEEL WELLS) ECP TBD: The Kapton Wiring in the landing gear retraction housing areas (wheel wells) will require replacement due to weather exposure. Initial program will modify 18 P-3C aircraft.

DIGITAL AUTOPILOT: An FY02 Congressional Plus-Up provided funding to perform NRE, procure, install and test a Digital Autopilot in the P-3C as a replacement for the ASW-31 system, which is highly unreliable and costly to maintain. An FY-03 Congressional Plus-Up provided funding to procure and install four Digital Autopilot systems.

AIRCRAFT HEALTH MONITORING SYSTEM (AHMS) ECP N/A: An FY02 Congressional Plus-Up provided NRE funding to develop an AHMS for the P-3C which can monitor critical aircraft systems (engines, structures, electrical, avionics) to identify items that require maintenance or repair. An FY-03 Congressional Plus-Up provided funding to test an AHMS in a P-3C. An FY-04 Congressional Plus-up provides funding to modify the prototype AHMS aircraft to test electronic engine instruments. An FY-05 Congressional Plus-Up provided funding for three additional pre-production AHMS kits and installs.

INFRA-RED (IR) STROBES ECP JAX P3-776: FY-02 Defense Emergency Response Fund (DERF) funded 100 IR strobes for P-3 aircraft.

HUB INTEGRATED POWER SWITCHING SYATEM/PROPELLER BALANCING MONITORING SYSTEM (PBMS): An FY-04 Congressional Plus-Up provided funding to install and test a new propeller hub mounted system for power generation (HIPSS). An FY-05 Congressional Plus-Up provided funding to install and test a system for in-flight measurement of propeller virbration and balancing (PBMS).

Oxygen System Modification ECP JAX P3-833: Replaces the Aluminum Manifold Check Valve, Filler Check Valve and Pressure Reducing Valve with Monel Parts. O-Level Install. Models of systems affected include P-3C and P-3 Derivatives (EP-3, Special Projects, NP-3, VP-3 and UP-3).

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

The changes identified are minor and do not require approval for full production.

Exhibit P-3a

Exhibit P-3a INDIVIDUAL MODIFICATION

MODIFICATION TITLE: Critical Systems Improvements (OSIP 53-85)

MODELS OF SYSTEM AFFECTED: P-3C TYPE MODIFICATION Readiness

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
APS-115 Feedball Mod	90	1.6																				
EJ Receiver Mod	145	**																				
Single Arm Cont Panel (SACP)	228	.7																				
Kapton Wire Replace (Wings)	97	1.0																				
Kapton Wire Replace (Wheel Well)									18	.3												
Standby (Peanut) Gyro Mod	66	.3	5	*	13	.1	27	.2	19	.1												
AHMS	1	.1																				
Digital Autopilot	5	.1																				
HIPSS/PBMS			20	.1																		
Oxygen System Mod Kit	210	.8																				
Infra-Red (IR) Strobes	100	.5																				
MA-16 Inertial Reel Mod kits	50	.1																				
Prior Years Kits	171	7.6																				
Installation Kits N/R		4.6		1.1		.9																
Installation Equipment																						
AHMS	1	**			3	.5																
Digital Autopilot	5	1.1																				
HIPSS/PBMS			20	.3	1	*																
Infra-Red (IR) Strobes	100	.5																				
Installation Equipment N/R																						
Engineering Change Orders																						
Data		2.2		*		.4		.1		.2												
Training Equipment		.3				*		*														
Support Equipment		.2		*																		
ILS		.2																				
Other Support		4.0		1.0		1.0		.2		.1												
Interim Contractor Support																						
Installation Cost		3.3		.6		*				.2												
TOTAL PROCUREMENT	1,269	29.1	45	3.2	17	3.0	27	.4	37	.9												

Notes:

1. Totals do not add due to rounding
2. Asterick indicates amount less than 51K ** AHMS Equipment on Loan from Contractor.

Exhibit P-3a

Exhibit P-3a

MODELS OF SYSTEMS AFFECTE P-3C MODIFICATION TITLE: Critical Systems Improvement (OSIP 53-85) Kapton Wiring (Wheel Well)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 4 Months PRODUCTION LEADTIME 5 Months

CONTRACT DATES: FY 2004: FY 2005: FY 2006: FY 2007: 01/07

DELIVERY DATE: FY 2004: FY 2005: FY 2006: FY 2007: 06/07

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY () kits																						
FY 2004 () kits																						
FY 2005 () kits																						
FY 2006 () kits																						
FY 2007 (18) kits									18	.2												
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
To Complete () kits																						
TOTAL									18	.2												

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In																9	9								
Out																9	9								

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	TOTAL
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTE P-3C MODIFICATION TITLE: Critical Systems Improvement (OSIP 53-85) Digital Autopilot

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 5 Months PRODUCTION LEADTIME: 8 Months

CONTRACT DATES: FY 2004: ____ FY 2005: ____ FY 2006: ____ FY 2007: ____

DELIVERY DATE: FY 2004: ____ FY 2005: ____ FY 2006: ____ FY 2007: ____

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY(5) kits	1	.4	4	*																		
FY 2004 () kits																						
FY 2005 () kits																						
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
To Complete () kits																						
TOTAL	*	.4	4	*																		

* FY02 Congressional Add funds (5) install.

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	1				4																				
Out	1				4																				

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	TOTAL
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3C MODIFICATION TITLE: Critical Systems Improvement Program (OSIP 53-85) Structural Data Recorder Set

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: Months PRODUCTION LEADTIME: Months

CONTRACT DATES: FY 2004: ____ FY 2005: ____ FY 2006: ____ FY 2007: ____

DELIVERY DATE: FY 2004: ____ FY 2005: ____ FY 2006: ____ FY 2007: ____

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY () kits **	4	*	4	.2																		
FY 2004 () kits																						
FY 2005 () kits																						
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
To Complete () kits																						
TOTAL	4	*	4	.2																		

** Eight SDRS kits procured under P-3 OSIP 5-93 and equipment procured under Common Avionics OSIP 14-92.

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	4			1	3																				
Out	4			1	3																				

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	TOTAL
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3C MODIFICATION TITLE: Critical Systems Improvement (OSIP 53-85) HIPSS/PBMS

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 5 Months

CONTRACT DATES: FY 2004: 08/05 FY 2005: 12/04 FY 2006: ___ FY 2007: ___

DELIVERY DATE: FY 2004: 06/06 FY 2005: 04/05 FY 2006: ___ FY 2005: ___

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY () kits																						
FY 2004 (20) kits			**	.4			20	**														
FY 2005 (1) kit					1	*																
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
To Complete () kits																						
TOTAL			**	.4	1	*	20	**														

** FY 04 Congressional Add for HIPPS was to fund twenty (20) installs. Current plan is to reprogram funding for PBMS kits and installs.

** FY 05 Congressional Add for PBMS to fund NRE, prototype and testing.

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In								1				10	10												
Out								1				10	10												

	FY 2010				FY 2011				To		
	1	2	3	4	1	2	3	4	Complete		TOTAL
In											
Out											

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3C MODIFICATION TITLE: Critical Systems Improvement (OSIP 53-85) AHMS

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 4 Months PRODUCTION LEADTIME: 4 Months

CONTRACT DATES: FY 2004: FY 2005: 01/05 FY 2006: FY 2007:

DELIVERY DATE: FY 2004: FY 2005: 05/05 FY 2006: FY 2005:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (1) kits*	1	.1																				
FY 2004 () kits																						
FY 2005 (3) kit					2	.1	1	**														
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
To Complete () kits																						
TOTAL	1	.1			2	.1	1	**														

* FY 03 Congressional Add for AHMS provide funding to install and test an AHMS in a P-3C

** FY 05 Congressional Add for AHMS funds three (3) additional pre-production kits and installs.

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	1							1	1	1															
Out	1							1	1	1															

	FY 2010				FY 2011				To		
	1	2	3	4	1	2	3	4	Complete	TOTAL	
In											
Out											

Exhibit P-3a INDIVIDUAL MODIFICATION

MODIFICATION TITLE: Ultra High Frequency (UHF)/Very High Frequency (VHF) Communications Update (OSIP 60-86)

MODELS OF SYSTEM AFFECTED: P-3A/B/C & 4 Special Projects TYPE MODIFICATION: Readiness

DESCRIPTION/JUSTIFICATION:

P-3 aircraft have an operational requirement for UHF satellite communications (SATCOM) , and currently have satellite capable communications suites. JCS Memo CJCSI 6251.01 OF 31 July 1996 modified SATCOM access to require Advanced Narrowband Digital Voice Terminal (ANDVT) and Demand Assigned Mulitple Access (DAMA) standards by 30 September 1996. In addition, the ARC-101 VHF radio does not have a 25KHz channel capability and does not comply with Air Traffic Control regulations and represents a potential safety of flight issue. The older UHF and VHF (ARC-143 and ARC-101) radios suffer from considerable degraded performance because of crosstalk sensitivity, lack of channel selectivity, intermodulation and are not compatible with the JCS satellite access requirements. The ARC-182 is the Navy's standard VHF radio and corrects the VHF deficiencies. In FY 1993, Vinson Baseband kits were procured to provide succinct channel identification for the ARC-187 radios currently installed in P-3 aircraft.

The FY 1994 and subsequent programs will bring 108 P-3C aircraft to a common radio configuration which meets all requirements for SATCOM and Havequick. 108 P-3C aircraft will receive the ANDVT/SATCOM (CIP) installation. Additionally, 32 P-3C A/C will have the ARC-182 radio installed in conjunction with CIP and 23 aircraft will have the ARC-187 radio (2 per A/C) installed in conjunction with CIP. Some of the ARC-182 and/or ARC-187 installations may occur as stand-alone to meet fleet requirements.

P-3C Communications Improvement Program (CIP) Engineering Change Proposal (ECP) Lockheed 1025: This ECP covers the installation of the kit and equipment necessary for DAMA SATCOM which includes the AN/ARC-187/VIASAT Modem combination, modified ARC-187 Controls and Advanced Narrowband Digital Voice Terminal (ANDVT). In aircraft that presently do not have an ARC-187 UHF and/or ARC-182 VHF radios installed, ECP 988 (UHF) and/or ECP 990 (VHF) will be installed in conjunction with ECP 1025 or through stand-alone installations.

This OSIP update reflects program funding termination as of FY03.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

The ARC-182 and ARC-187 radios have Approval for Full Production (AFP) and are verified in the P-3 aircraft. ECP 1025 (CIP) was approved in January 1997. DAMA SATCOM certification for the ARC-187/Viasat Modem combination was received in March 1998.

Exhibit P-3a

Exhibit P-3a INDIVIDUAL MODIFICATION

MODIFICATION TITLE: Ultra High Frequency (UHF)/Very High Frequency (VHF) Communications Update (OSIP 60-86)

MODELS OF SYSTEM AFFECTED: P-3A/B/C & 4 Special Projects TYPE MODIFICATIO Readiness

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
AFC(P-3C)ARC-182	166	3.4																				
AFC(P-3C)ARC-187	186	2.6																				
AFC(P-3A/B)ARC-182	11	.3																				
AFC(P-3C)UHF/VHF UPGRADE	26	.3																				
AFC(P-3C)KG-84	143	2.6																				
AFC(P-3C)SATCOM COMPATIE	141	1.6																				
AFC(P-3C)VINSON BASEBAND	378	2.2																				
AFC(P-3C) CIP (ANDVT/DAMA)	88	2.3																				
Installation Kits N/R		27.4																				
Installation Equipment																						
ARC-187 (2 per A/C)	374	19.0																				
ARC-187 POWER SUPPLY MOI	90	.3																				
ARC-210	10	.4																				
ARC-182**	179	4.2																				
ARC-187 Control (2 per A/C)	194	2.8																				
CRYPTO Fill Port (2 per A/C)	208	.3																				
Interface Adapter Assembly (IAA	91	.4																				
Diplexer	91	.4																				
Modem (1 per A/C)	95	4.0																				
ANDVT	91	***																				
Installation Equipment N/R		3.1																				
Engineering Change Orders																						
Data		6.6																				
Training Equipment	69	3.7																				
Support Equipment		3.0																				
ILS		2.2																				
Other Support		15.2																				
Interim Contractor Support																						
Installation Cost	1,145	10.6																				
TOTAL PROCUREMENT	2,631	119.0																				

Notes:

1. Totals do not add due to rounding
2. Asterisk indicates amount less than 51K

** AN/ARC-182 radios to be obtained from F/A18 or other aircraft installing AN/ARC-210 radios.

*** ANDVT provided by NSA.

Exhibit P-3a

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3A/B/C MODIFICATION TITLE: Ultra High Frequency (UHF)/Very High Frequency (VHF) Communications Update (OSIP 60-8

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: P-3A/B/C & 4 Special Projects

ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 10 Months

CONTRACT DATES: FY 2004: FY 2005: FY 2006:

DELIVERY DATE: FY 2004: FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (1145) kits	1,128	10.6	17	**																		
FY 2004 (0) kits																						
FY 2005 (0) kits																						
FY 2006 0) kits																						
FY 2007 (0) kits																						
FY 2008 (0) kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
To Complete () kits																						
TOTAL	1,128	10.6	17	**																		

** FY03 funds installs in FY04.

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009		
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3
In	1128	8	9																					
Out	1128	8	9																					

	FY 2010				FY 2011				To	TOTAL
	1	2	3	4	1	2	3	4	Complete	
In										
Out										

Exhibit P-3a INDIVIDUAL MODIFICATION

MODIFICATION TITLE: Anti-Surface Warfare (ASUW) Improvement Program (OSIP 29-94)

MODELS OF SYSTEM AFFECTED: P-3C TYPE MODIFICATIO Operational Improvement

DESCRIPTION/JUSTIFICATION:

The Navy's Maritime Patrol and Reconnaissance Force (primarily P-3C Orion aircraft) provides three deliverables to Navy and joint commanders worldwide: Undersea warfare; Intelligence Surveillance, and Reconnaissance; and Maritime Surveillance Targeting. The ASUW Improvement Program meets the Navy's requirement to rapidly provide a significant increase in the current P-3's ability to perform Anti-Submarine Warfare (ASW), Anti-Surface Warfare (ASUW), Over-the-Horizon Targeting (OTH-T), and Command, Control, Communications, Computers, and Intelligence (C^4I).The target aircraft for this modification are P-3C Update II/II.5 and Update III. This modification focuses on improving the weapon system's capability for standoff targeting and classification. Significant sensor improvements and capabilities are provided by the APS-137D (V) 5 imaging radar, the Advanced Imaging Multi-Spectral Sensor (AIMS) electro optical/infrared system, and ESM upgrades that include Specific Emitter Identification (SEI), SEI Utility Improvement, ALR-95, improved pulse processing, and DF accuracy. C^4I is improved with a DAMA Satcom radio suite and Multi-mission Advanced Tactical Terminal (MATT) that can receive the Officer in Tactical Command Information Exchange System (OTCIXS), and other fleet broadcasts. Additional planned Phased Capability Upgrade (PCU) improvements include the Maritime Surveillance Targeting (MST) capability as well as Tactical Common Data Link (TCDL). Survivability enhancements include the ALE-47/AAR-47 missile warning countermeasures, explosive suppressant foam, and small circular area of probability weapon system (Maverick, SLAM, SLAM-ER, and provisions to carry and launch all Mil Std 1760 Digital weapons. Additional funding in FY1995 and FY1996 was utilized to meet an urgent fleet requirement to upgrade 17 Pre-AIP aircraft with Maverick armament control kits. The P3 AIP operational requirement document (ORD) is Ser # 355-88-94.

Future Engineering Change Proposals (ECPs) are anticipated for the existing systems including APS 137 radar; ARPPD;AIMS EO/IR; MATT; Link 16; Global Communication & Control System - Maritime (GCCS-M); Precision Targeting Workstation (PTW); OASIS;Video Distribution Controller (VDC); Tactical Mission Computer; ALR-95 ESM; DAMA Satcom; MST; TCDL; Recorders; ALE47/AAR47; Digital Stores Management System (DSMS); all weapon systems including missiles, torpedoes, mines, as well as acoustic system upgrades.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

This modification makes maximum use of previously developed subsystems.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E (H-2417)		9.4																				
PROCUREMENT																						
Installation Kits																						
AFC A Kit	67	75.6	3	4.8	1	2.4																
AFC B Kit		260.6		20.7		14.6																
Torpedo Directed Search - A Kit				.6																		
Torpedo Directed Search - B Kit				.6																		
Pre-AIP Armament Kit	17	12.9																				
Installation Kits N/R		36.3		.2																		
Installation Equipment																						
GFE Sensors and Avionics		253.4		18.2		14.8																
Advanced IRDS		4.0																				
Phased Capability Upgrade(MST)		10.0		8.1		3.5																
Installation Equipment N/R		55.3		9.9		10.5																
Engineering Change Orders		22.6		.3				.3		.3												
Data		15.2		1.4		.4																
Training Equipment		53.3		1.9		2.0		4.5		7.1												
Support Equipment		12.7		.4		.1																
ILS		13.9		.5		.3																
Other Support		114.1		9.8		5.9		1.2		.8												
Interim Contractor Support																						
Installation Cost	63	94.2	5	17.5	2	12.6	1	5.9														
TOTAL PROCUREMENT	84	1,034.0	3	94.9	1	67.2		11.9		8.2												

Notes:
1. Totals do not add due to rounding
2. Asterisk indicates amount less than 51K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3C MODIFICATION TITLE: Anti-Surface Warfare (ASUW) Improvement Program (OSIP 29-94)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Installation through FY98 funded turn-key operation. Installation for FY99 and out years funded in the year they occur.

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 16 Months

CONTRACT DATES: FY 2004: 10/03 FY 2005: 10/04 FY 2006: FY 2007:

DELIVERY DATE: FY 2004: 02/05 FY 2005: 02/06 FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (67) kits **/***	60	94.2	6	14.2	1	***																
FY 2004 (3) kits ****			****	3.3	3	12.6																
FY 2005 (1) kit							1	5.9														
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
To Complete (73) kits																						
TOTAL	60	94.2	6	17.5	4	12.6	1	5.9														

** FY 02 Congressional Add funds two (2) installs.
*** FY 03 Congressional Add funds one (1) install.
**** FY 04 Congressional Add funds one (1) install.

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	60		2	2	2		2	2			1														
Out	58	2		2	2	1	1	1	1	1	1		1												

	FY 2010				FY 2011				To		TOTAL	
	1	2	3	4	1	2	3	4	Complete			
In												
Out												

Exhibit P-3a INDIVIDUAL MODIFICATION

MODIFICATION TITLE: Communications Navigation Surveillance/Air Traffic Management (OSIP 13-01)

MODELS OF SYSTEM AFFECTED: P-3C/EP-3 TYPE MODIFICATION Operational Improvement/Safety

DESCRIPTION/JUSTIFICATION:

P-3C aircraft have a requirement for a Communications, Navigation and Surveillance/ Air Traffic Management (CNS/ATM) upgrades to meet expanding CNS/ATM requirements and ensure global access to commercial airspace. The CNS/ATM requirements consist of various avionics systems upgrades/replacements which currently include; VHF radio with 8.33 kHz channel spacing, IFF (Mode S and Mode 5), protected ILS/VOR with FM Immunity, and an upgraded GPS to provide increased navigation accuracy (RNP5, BRNAV, RVSM) with the capability to be upgraded to meet Automatic Dependent Surveillance Broadcast (ADS-B), Next Generation Communications (NEXCOM), Joint Precision Approach and Landing System (JPALS), Precision Area Navigation (PRNAV), Navigation Warfare (NAVWAR) and Joint Tactical Radio System (JTRS) requirements . Successful integration of any or all of these capabilities, and any future Federal Aviation Administration (FAA) or International Civil Aviation Organization (ICAO) mandates, requires an Flight Management System (FMS) which provides for growth and interface flexibility. This OSIP provides non-recurring engineering for the development of the CNS/ATM architecture for the P-3 aircraft which includes a FMS/CDU, digital air data computer (DADC) and an Electronic Flight Display Systems (EFDS). This modification program provides CNS/ATM upgrades for 148 P-3C aircraft and 16 EP-3 aircraft. RNAV/ MODE S Kit (JAX ECP P3-828) includes FMS/CDU 7000, Digital Air Data Computer, APX-118 (IFF/MODE S) and RINU-G. EFDS (JAX ECP P3-491), MMR (JAX ECP P3-826 & ARC-210 (8.33KHz) (Jax ECP P3-827) are Stand-Alone ECPs that will be installed separately or in conjunction with RNAV/Mode S ECP.

CPRG FRP approved by CNO directed 148 P-3C aircraft.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Acquisition Strategy approved 21 Nov 03/ACAT IVM. Preliminary Design Review for RNAV Mode S completed 16 Jun04. Begin transition of ARC-210 (8.33kHz) Radio and MLR-2020 (P-ILS) form Roll-On/Roll-Off to permanent installation in FY-05 (PMA-209 funded).

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
RNAV/MODE S	1	.4	2	.1	18	1.5	23	2.0	23	2.1												
ARC-210 VHF Radio (8.33kHz)	10	*	18	*		****		****		****												
MLR-2020 (P-ILS)	60	.3	15	*		****		****		****												
EFDS **	72	.8	18	1.2	18	1.5	23	1.9	22	1.9												
Installation Kits N/R		7.7		.2																		
Installation Equipment																						
FMS/CDU	6	.3	11	.4	57	2.4	96	4.2	84	3.7												
ARC-210 VHF Radio (8.33kHz)	26	.5				****		****		****												
Digital ADC (RNAV)		*	10	.2	38	.8	60	1.3	56	1.3												
MLR-2020 (P-ILS)	120	4.9	28	1.2		****		****		****												
APX-118 (IFF/MODE S)	2	.1	3	.1 ***		****		****		****												
RINU-G (RNAV)	2	*	6	.1 ***		****		****		****												
EFDS **	75	1.5	18	2.2	20	2.7	31	4.4	25	3.6												
Installation Equipment N/R		9.0		4.0																		
Engineering Change Orders																						
Data		.4		.8		.5																
Training Equipment	3	**			8	1.3	10	1.3	8	1.0												
Support Equipment																						
ILS		.6		.2		.3		.7		.6												
Other Support		4.6		1.1		1.5		2.4		2.0												
Interim Contractor Support																						
Installation Cost **	1	.8		.4	2	1.5	18	3.4	23	4.6												
TOTAL PROCUREMENT	377	32.0	129	12.2	159	14.1	243	21.7	218	20.6												

Notes:

1. Totals do not add due to rounding
2. Asterisk indicates amount less than 51K

** 60 EFDS funded under GPS OSIP 28-92

*** APX-118 and RINU-G funding in FY04 is for TKIs.

**** Beginning in FY-04, PMA-209 will fund NRE, Kits, equipment and installs for ARC-210 VHF radio, APX-118, MLR-2020 and RINU-G.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3C/EP-3/Derivatives MODIFICATION TITLE: CNS/ATM (OSIP 13-01) RNAV MODE S

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Team

ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 9 Months

CONTRACT DATES: FY 2004: 6/04 FY 2005: 3/05 FY 2006: 1/06 FY 2007: 01/07

DELIVERY DATE: FY 2004: 2/05 FY 2005: 12/05 FY 2006: 10/06 FY 2007: 10/07

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (1) kits	1	.3																				
FY 2004 (2) kits					2	.2																
FY 2005 (18) kits							18	1.7														
FY 2006 (23) kits									23	2.5												
FY 2007 (23) kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
To Complete () kits																						
TOTAL	1	.3			2	.2	18	1.7	23	2.5												

P-3C Prototype NRE, prototype kit and prototype installation funded in FY02 with Congressional Plus-Up.

RNAV MODE S installs begin in FY05 and consist of FMS/CDU 7000, Digital Air Data Computer (DADC/ADDU), CXP and RINU-G. CXP & RINU-G Funded by PMA-209.
** Last 12 Installs Funded in FY11, Installed In FY12

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& PRIOR	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	1						1	1		4	4	5	5	5	6	6	6								
Out	1							1	1		4	4	5	5	5	6	6								

	FY 2010				FY 2011				To	TOTAL
	1	2	3	4	1	2	3	4	Complete	
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3C/EP-3/Derivatives MODIFICATION TITLE: CNS/ATM (OSIP 13-01) MLR-2020-A-1 Multimode Receivers (MMRs)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Team

ADMINISTRATIVE LEADTIME: 4 Months PRODUCTION LEADTIME: 8 Months

CONTRACT DATES: FY 2004: 02/04 FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: 10/04 FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (60) kits	39 ****	**	21	*																		
FY 2004 (15) kits			****	*	15	*																
FY 2005 () kits																						
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
To Complete () kits																						
TOTAL		**	21	*	15	*																

NOTE: Will conduct stand-alone MLR-2020-A-1 (MMR) installations in FY01-05 to meet immediate requirements. The remainder of MLR-2020-A-1 (MMR) will be procured and installed by PMA-209.

* Asterisk indicates amount less than 51K

** O-Level - Roll-On/Roll-Off, No Install Cost

**** FY03 Congressional Plus up funds 21 installs in FY04.

**** Includes the 14 FY04 Congressional Add.

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& PRIOR	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	39		10	11		4	4	4	3																
Out	39		10	11		4	4	4	3																

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	TOTAL
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3C/EP-3/Derivatives MODIFICATION TITLE: CNS/ATM (OSIP 13-01) Electronic Flight Display Systems (EFDS)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Team

ADMINISTRATIVE LEADTIME: 9 Months PRODUCTION LEADTIME: 8 Months

CONTRACT DATES: FY 2004: 6/04 FY 2005: 6/05 FY 2006: 6/06 FY 2007: 6/07

DELIVERY DATE: FY 2004: 2/05 FY 2005: 2/06 FY 2006: 2/07 FY 2007: 2/08

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (72) kits	66 **	.5	6	.4																		
FY 2004 (18) kits					18	1.3																
FY 2005 (18) kits							18	1.8														
FY 2006 (23) kits									23	2.1												
FY 2007 (22) kits																						
FY 2008 (7) kits																						
FY 2009 (4) kits																						
FY 2010 () kits																						
FY 2011 () kits																						
To Complete () kits																						
TOTAL	66	.5	6	.4	18	1.3	18	1.8	23	2.1												

Note: Will conduct stand-alone EFDS installations in FY01-05 to meet immediate requirements. EFDS will be installed concurrent with CNS/ATM Architecture installs beginning in FY05.

* Prior year EFDS funded under GPS OSIP 29-92

** FY-03 Congressional Add includes one EP-3 EFDS installation.

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& PRIOR	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	66	1	1	2	2	4	4	5	5	4	4	5	5	5	6	6	6								
Out	64	2	1	1	2	2	4	4	5	5	4	4	5	5	5	6	6								

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	TOTAL
In										
Out										

Exhibit P-3a INDIVIDUAL MODIFICATION

MODIFICATION TITLE: P-3 Critical Obsolescence Program (OSIP 04-04)

MODELS OF SYSTEM AFFECTED: P-3C TYPE MODIFICATION: Readiness Improvement

DESCRIPTION/JUSTIFICATION:

The purpose of this program is to incorporate a number of cost effective changes to the P-3 weapon system, specifically targeting improvements to high cost and maintenance and obsolete readiness degrader items. These improvements are a vital element of the P-3 sustainment bridge, significantly enhancing the strategy of a smaller, more ready, more capable P-3 force during the bridge to Multi-Mission Maritime Aircraft (MMA). The increased readiness and capabilities that will be realized, support the foundational sustainment bridge elements, specifically operational availability and common configuration. Planned improvements under this OSIP cover airframe, propulsion and avionics related subsystems, utilizing Commercial Off-The-Shelf Systems (COTS) technology to the maximum extent practicable to minimize development and procurement costs, and to reduce the time to field the improved systems. The systems identified for replacement include HF Radio, Data Link, InfraRed Detection System, Autopilot, Inter Communication System, and Radar. Additionally, systems being evaluated for replacement include IFF Interrogator Set, Magnetic Anomaly Detector, and Magnetic Tape Recorder/Reproducer.

FY04 Congressional Plus-Up of $2.0M for Electro-Optics and Communications Upgrade.
FY05 Congressional Plus-Up of $1.0M for Electro-Optics and Communications Upgrade.
FY05 Congressional Plus-Up of $2.0M for Digital Autopilot Systems.
CPRG FRP approved by CNO directed 148 P-3C aircraft.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

This Modification makes maximum use of Commercial Off-The-Shelf Systems that have been installed on operational platforms.

The COP NPDM authorizing MS-C / LRIP was approved 26 March 2004.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E (H1152)				4.5		4.5																
PROCUREMENT																						
Installation Kits																						
HF Radio Kit			3	.1	8	.1	30	.5	25	.4												
Data Link Kit			3	.1	8	.1	30	.4	25	.3												
Infrared Detection Kit			3	.1	9	.1	19	.8	18	.8												
Auto-Pilot Kit			3	.1	15	.8	29	1.1	25	1.0												
Inter Communications Kit			3	.1	8	.1	9	.1	16	.2												
Radar/Interogator																						
Installation Kits N/R				.5		.5																
Installation Equipment																						
HF Radio Kit			3	.8	8	2.1	30	7.0	25	6.0												
Data Link Kit			3	.2	8	.6	30	2.0	25	1.7												
Infrared Detection Kit			3	1.5	9	4.5	19	8.0	18	7.9												
Auto-Pilot Kit			3	.9	15	3.6	29	6.7	25	5.9												
Inter Communications Kit			3	1.2	8	3.1	9	3.8	16	6.3												
Radar/Interogator																						
Installation Equipment N/R				6.8		1.8																
Engineering Change Orders																						
Data				.2		.4		1.3		.9												
Training Equipment				.3		.5		1.4		1.5												
Support Equipment				.5		.6		*		.1												
ILS				.2		.4		.6		.7												
Other Support				1.1		2.0		4.5		4.2												
Interim Prime Contractor Support								2.8														
Installation Cost					15	1.9	48	2.7	117	5.7												
TOTAL PROCUREMENT			30	14.5	96	22.9	234	43.7	218	43.7												

Notes:
1. Totals do not add due to rounding
2. Asterisk indicates amount less than 51K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3C

MODIFICATION TITLE: P-3 Critical Obsolescence Program (OSIP 04-0< HF Radio

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Installation will be accomplished by contractor mod teams.

ADMINISTRATIVE LEADTIME: 3 Months

PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2004: 07/04 FY 2005: 01/05 FY 2006: 01/06 FY 2007: 01/07

DELIVERY DATE: FY 2004: 07/05 FY 2005: 01/06 FY 2006: 01/07 FY 2007: 01/08

($ in Millions)

Cost:	Prior years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY () kits																						
FY 2004 (3) kits					3	.1																
FY 2005 (8) kits							8	.2														
FY 2006 (30) kits									30	.8												
FY 2007 (25) kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
To Complete () kits																						
TOTAL					3	.1	8	.2	30	.8												

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In									3		3	3	2		10	10	10								
Out										3		3	3	2		10	10								

	FY 2010				FY 2011				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3C MODIFICATION TITLE: P-3 Critical Obsolescence Program (OSIP 04-0 Data Link

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Installation will be accomplished by contractor mod teams.

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2004: 07/04 FY 2005: 01/05 FY 2006: 01/06 FY 2007: 01/07

DELIVERY DATE: FY 2004: 07/05 FY 2005: 01/06 FY 2006: 01/07 FY 2007: 01/08

($ in Millions)

Cost:	Prior years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY () kits																						
FY 2004 (3) kits					3	.1																
FY 2005 (8) kits							8	.2														
FY 2006 (30) kits									30	.8												
FY 2007 (25) kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
To Complete () kits																						
TOTAL					3	.1	8	.2	30	.8												

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In									3		3	3	2		10	10	10								
Out										3		3	3	2		10	10								

	FY 2010				FY 2011				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3C

MODIFICATION TITLE: P-3 Critical Obsolescence Program (OSIP 04-0‹ Infrared Detection

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Installation will be accomplished by contractor mod teams.

ADMINISTRATIVE LEADTIME: 3 Months

PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2004: 04/04 FY 2005: 01/05 FY 2006: 01/06 FY 2007: 01/07

DELIVERY DATE: FY 2004: 12/04 FY 2005: 01/06 FY 2006: 01/07 FY 2007: 01/08

($ in Millions)

Cost:	Prior years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY () kits																						
FY 2004 (3) kits					3	.1																
FY 2005 (9) kits							9	.2														
FY 2006 (19) kits									19	.5												
FY 2007 (18) kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
To Complete () kits																						
TOTAL					3	.1	9	.2	19	.5												

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In						3					3	3	3		7	6	6								
Out							3					3	3	3		7	6								

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	TOTAL
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3C MODIFICATION TITLE: P-3 Critical Obsolescence Program (OSIP 04-0‹ Auto-Pilot

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Installation will be accomplished by contractor mod teams.

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2004: 07/04 FY 2005: 01/05 FY 2006: 01/06 FY 2007: 01/07

DELIVERY DATE: FY 2004: 07/05 FY 2005: 01/06 FY 2006: 01/07 FY 2007: 01/08

($ in Millions)

Cost:	Prior years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY () kits																						
FY 2004 (3) kits					3	.1																
FY 2005 (15) kits					*	.4	15	.5														
FY 2006 (29) kits									29	1.8												
FY 2007 (25) kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 (0) kits																						
To Complete () kits																						
TOTAL					3	.5	15	.5	29	1.8												

* FY05 Congressional Add funds 6 installs

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In									3		3	6	6		10	10	9								
Out										3		3	6	6		10	10								

	FY 2010				FY 2011				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3C MODIFICATION TITLE: P-3 Critical Obsolescence Program (OSIP 04-0 Inter Communications System

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Installation will be accomplished by contractor mod teams.

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2004: 07/04 FY 2005: 01/05 FY 2006: 01/06 FY 2007: 01/07

DELIVERY DATE: FY 2004: 07/05 FY 2005: 01/06 FY 2006: 01/07 FY 2007: 01/08

($ in Millions)

Cost:	Prior years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY () kits																						
FY 2004 (3) kits					3	1.2																
FY 2005 (8) kits							8	1.6														
FY 2006 (9) kits									9	1.8												
FY 2007 (16) kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
To Complete () kits																						
TOTAL					3	1.2	8	1.6	9	1.8												

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In									3		3	3	2		3	3	3								
Out										3		3	3	2		3	3								

	FY 2010				FY 2011				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3C MODIFICATION TITLE: P-3 Critical Obsolescence Program (OSIP 04-0 Radar System

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Installation will be accomplished by contractor mod teams.

ADMINISTRATIVE LEADTIME: TBD Months PRODUCTION LEADTIME: TBD Months

CONTRACT DATES: FY 2004: FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY () kits																						
FY 2004 () kits																						
FY 2005 () kits																						
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
To Complete () kits																						
TOTAL																						

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In																									
Out																									

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	TOTAL
In										
Out										

Exhibit P-3a INDIVIDUAL MODIFICATION

MODIFICATION TITLE: P-3/EP-3 Special Structural Inspection - Kits (SSI-K) (OSIP 05-05)

MODELS OF SYSTEM AFFECTED: All P-3 T/M/S TYPE MODIFICATION: Sustainment

DESCRIPTION/JUSTIFICATION:

The Special Structural Inspection - Kits Program is an Operational Service Improvement Program (OSIP) that will capture the P-3/EP-3 aircraft's test demonstrated fatigue life by replacing airframe structural components in fatigue life limiting critical regions of the P-3/EP-3 aircraft to enable the airframe to fully reach its designed service life but will not extend the fatigue life of those aircraft.
Unchecked, these problem areas collectively will result in significant loss of aircraft from the operational inventory due to operational and support funding limitations. SSI-K will manufacture and install a structural mod / replacement kit for P-3 outer wing, center box and other components.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
SSIK Kit					8	5.1	10	7.5	12	9.2												
Installation Kits N/R						6.8																
Installation Equipment																						
SSIK Kit																						
Installation Equipment N/R																						
Engineering Change Orders						.5		2.1		.1												
Data						2.4		.5		.5												
Training Equipment																						
Support Equipment						.4				.1												
ILS						1.2		1.1		1.1												
Other Support						1.8		4.6		5.3												
Interim Contractor Support																						
Installation Cost							8	30.5	10	39.3												
TOTAL PROCUREMENT					8	18.1	10	46.2	12	55.6												

Notes:
1. Totals do not add due to rounding
2. Asterisk indicates amount less than 51K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: All P-3 T/M/S

MODIFICATION TITLE: P-3/EP-3 Special Structural Inspection - Kits (SSI-K) (OSIP 05-05)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Installation will be accomplished by contractor mod teams.

ADMINISTRATIVE LEADTIME: 3/2 Months

PRODUCTION LEADTIME: 10/12 Months

CONTRACT DATES: FY 2004: FY 2005: 12/04 FY 2006: 11/05 FY 2007: 11/06

DELIVERY DATE: FY 2004: FY 2005: 10/05 FY 2006: 11/06 FY 2007: 11/07

($ in Millions)

Cost:	Prior years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY () kits																						
FY 2004 () kits																						
FY 2005 (8) kits							8	30.5														
FY 2006 (10) kits									10	39.3												
FY 2007 (12) kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
To Complete () kits																						
TOTAL							8	30.5	10	39.3												

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4								
In										2	2	2	2	3	3	2	2								
Out												2	2	2	2	3	3								

	FY 2010				FY 2011				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										
Out										

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET P-40					DATE: February 2005							
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/APN-5 Aircraft Modifications			P-1 ITEM NOMENCLATURE S-3 Series Modifications									
Program Element for Code B Items:			Other Related Program Elements									
	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
QUANTITY												
COST (In Millions)	403.1		6.7	1.9	0.8	0.8	0.5					413.7

This line item funds modifications to S-3 aircraft. The S-3B is a carrier based, all weather, high wing, high subsonic, twin engine, multi-mission aircraft capable of Anti-Surface Warfare (ASUW) operations and tanking. The overall goal of the modifications budgeted in FY2006 is to provide funding to implement Engineering Change Proposals (ECPs) and Engineering Change Orders (ECOs) for flight critical S-3B systems that are essential to the continued safe operational employment and support of the S-3B aircraft. Total Active Inventory (TAI) is 111. The S-3B will reach end of service in 2015. The specific modifications budgeted and programmed are:

(TOA, $ in Millions)

OSIP No.	Description	Prior Years	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
39-94	UHF/VHF Comm. Impr. Prog.	103.2	6.1	1.9								111.1
12-95	Critical Structures	52.3	0.5									52.8
20-95	Critical Avionics Upgrade	197.5										197.5
04-96	Co-Processor Memory Unit	50.2	0.1									50.3
04-06	Flight Critical Systems Sustainment				0.8	0.8	0.5					2.0
TOTAL		403.1	6.7	1.9	0.8	0.8	0.5					413.7

Totals may vary due to rounding

CLASSIFICATION:

DD Form 2454, JUN 86

UNCLASSIFIED

Exhibit P-3a INDIVIDUAL MODIFICATION

MODIFICATION TITLE: Ultra High Frequency (UHF) / Very High Frequency (VHF) Communications Improvement Program (CIP) (OSIP 39-94)

MODELS OF SYSTEM AFFECTED: S-3B TYPE MODIFICATIO Safety

DESCRIPTION/JUSTIFICATION:

The S-3B has an operational requirement for reliable UHF and VHF communications. The current UHF radio (AN/ARC-156) suffers from serious reliability and obsolescence problems, and lacks the internal intermodulation protection required for proper operation in today's operational environment. The AN/ARC-187 UHF radio to be installed is a derivative of the AN/ARC-164 which is presently utilized by the Air Force and would correct the above mentioned deficiencies. The installation also permits compatibility with the JCS requirements for UHF Satellite Communications (SATCOM) users. The radio is common with the P-3C aircraft and this commonality will significantly reduce logistic support requirements. The S-3B does not currently have a VHF radio, which is required by International Air Traffic Control regulations and represents a potential safety flight problem when operating in international airspace and with foreign air fields. The AN/ARC-182 is the Navy's standard VHF radio for tactical aircraft and provides the VHF capability required. One AN/ARC-182 radio will be installed in 79 S-3B aircraft. This modification is validated in ORD 393-88-95, approved 23 Mar 95. S-3B ECP#423 constitutes the CIP integration, and Communication Control Group (CCG) modification.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

The AN/ARC-182 has Approval for Full Production (AFP), and will be verified in the S-3B with trial kit installation (TKI). The AN/ARC-187 installation was verified in the S-3B with Trial Kit Installation. Milestone III Approval for Full Production for S-3B Communications Improvement Program was granted on 23 June 1995.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
PROTOTYPE/TKI	2	1.8																				
CIP A Kit	77	17.5																				
MD-1324 Modem Control Mod Kit																						
Installation Kits N/R		11.4																				
Installation Equipment																						
ARC-182 - R/T & Mount	81	*																				
MD-1324 Modem	81	2.5																				
MD-1324 Modem Control		*																				
Crypto Fill Panels (2 per A/C)	162	.2																				
CCG Modification	87	21.5	5	1.1																		
AS-3557 Antenna	81	.2																				
Diplexer Preamp	81	.5																				
ARC-187 - B Kit (2 per A/C)	162	13.2																				
Installation Equipment N/R		1.5																				
Engineering Change Orders																						
Data		2.4				.4																
Training Equipment	8	4.4																				
Support Equipment		1.6		*																		
ILS		2.4		.5		.1																
Other Support		14.6		1.8		1.0																
Interim Contractor Support																						
Installation Cost	61	7.3	22	2.6	4	.4																
TOTAL PROCUREMENT	822	103.2	5	6.1		1.9																

Notes:

1. Totals do not add due to rounding
2. Asterisk indicates amount less than 51K

** AN/ARC-182 radios to be obtained from F/A-18 or other aircraft installing AN/ARC-210 radios.

Exhibit P-3a

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: S-3B MODIFICATION TITLE: UHF/VHF Communications Improvement Program (OSIP 39-94)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Team

ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2004: 3/04 FY 2005: ____ FY 2006: ____ FY 2007: ____

DELIVERY DATE: FY 2004: 3/05 FY 2005: ____ FY 2006: ____ FY 2007: ____

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (87) kits	61	7.3	22	2.6	4	.4																
FY 2004 () kits																						
FY 2005 () kits																						
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
To Complete () kits																						
TOTAL **	61	7.3	22	2.6	4	.4																

** Includes trainer install(s).

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	61		4	8	10	3	1																		
Out	61		4	8	10	3	1																		

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	TOTAL
In										
Out										

Exhibit P-3a INDIVIDUAL MODIFICATION

MODIFICATION T Critical Structures (OSIP 12-95)

MODELS OF SYSTEM AFFECTE S-3B TYPE MODIFICATIOI Safety

DESCRIPTION/JUSTIFICATION:

S-3 aircraft are included in the Naval Aviation Plan to support the carrier Battle Group through CY 2015. The S-3A aircraft was procured from 1972 to 1976 (1960's design/avionics technology), based on ORD #0927-AS dated 25 Mar 77. The S-3B Weapons System Improvement Program, which modified the S-3A to an S-3B, focused primarily on weapon system upgrades for mission enhancement and did not upgrade the critical airframe safety of flight avionics systems. This upgrade is a series of modifications required in order to ensure effective, safely flyable aircraft through the year 2015. Specifically, the Critical Structures Upgrade modification includes replacement of the windshield temperature controller and the following airframe components: wingfold rib, horizontal stabilizer hinge fitting, flight control elements, fuel flow/bleed air select vent valves, counterweights, and flap tack ribs. The Service Life Assessment Program (SLAP) (FY98) will certify that the fatigue and operational loads of the aircraft are accurately represented in the full scale reaction frame.

RECURRING KIT STATUS: The Critical Structures Airframe kit (consisting of horizontal stabilizer hinge fitting - ECP AL-808, counterweights - ECP AL-802, flap track ribs - ECP AL-796, and flow/bleed air select vent valves ECP AL-789), the Flight Control Elements kit, - ECP-AL807-R1 and the Inner Wing Empennage Kit for all 111 S-3B aircraft. Starting in FY01 the Wingfold Rib program has been terminated and funds were reprioritized to UHF/VHF Comm Improvement Program (OSIP 39-94).

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Replacement of the airframe components/windshield temperature controller does not require any development. Non-recurring engineering for all five components were completed in FY1995, first production buy began in FY1996 and installs commenced in FY1997. The non-recurring engineering include design of Critical Structures airframe components.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E - H2452		45.5																				
PROCUREMENT																						
Installation Kits																						
Critical Structures Airfrar	111	3.9																				
Flight Controls Elements	111	3.5																				
Inner Wing BL144	111	1.4																				
Inner Wing BL71	112	.2																				
Inner Wing BL58/70 **		**		**																		
Installation Kits N/R		19.7																				
Installation Equipment																						
Inner Wing BL58/70 **		**		**																		
Installation Equipment N/R																						
Engineering Change Orders				.2																		
Data		.2																				
Training Equipment		.2																				
Support Equipment																						
ILS		.1																				
Other Support		5.6		.3																		
Interim Contractor Support																						
Installation Cost	111	17.4																				
TOTAL PROCUREMENT	445	52.3		.5																		

Notes:

1. Totals do not add due to rounding
2. Asterisk indicates amount less than 51K

** No A kits required. B kits provided by supply system.

Exhibit P-3a

MODELS OF SYSTEMS AFFECT: S-3B

MODIFICATION TITLE: Critical Structures (OSIP 12-95) Inner Wing - BL144 (AFC-285)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: NADEP/Contractor Field Mod Teams

ADMINISTRATIVE LEADTIME: 4 Months

PRODUCTION LEADTIME: 9 Months

CONTRACT DATES: FY 2004: ____ FY 2005: ____ FY 2006: ____ FY 2007: ____

DELIVERY DATE: FY 2004: ____ FY 2005: ____ FY 2006: ____ FY 2007: ____

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (108) kits	100	2.7	8	*																		
FY 2004 () kits																						
FY 2005 () kits																						
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
To Complete () kits																						
TOTAL	100	2.7	8	*																		

*FY03 funds installs in FY04.

Commander, Sea Control Wing Pacific (CSCWP) planned to install BL-144 (AFC-285) during IMC Inspections. The war created non-availability of aircraft for FY-03 installations, therefore moving 8 installations to FY04.

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	100	2	2	2	2																				
Out	100	2	2	2	2																				

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	TOTAL
In										
Out										

Note: Three (3) aircraft stricken before their scheduled install.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: S-3B MODIFICATION TITLE: Critical Structures (OSIP 12-95) Inner Wing - BL71

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: NADEP Field Mod Team

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 2 Months

CONTRACT DATES: FY 2004: ____ FY 2005: ____ FY 2006: ____ FY 2007: ____

DELIVERY DATE: FY 2004: ____ FY 2005: ____ FY 2006: ____ FY 2007: ____

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (112) kits	112	.5																				
FY 2004 () kits																						
FY 2005 () kits																						
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
To Complete () kits																						
TOTAL	112	.5																				

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	112																								
Out	112																								

	FY 2010				FY 2011				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECT S-3B MODIFICATION TITLE: Critical Structures (OSIP 12-95)
Flight Control Elements

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 4 Months PRODUCTION LEADTIME: 9 Months

CONTRACT DATES: FY 2004: ____ FY 2005: ____ FY 2006: ____ FY 2007: ____

DELIVERY DATE: FY 2004: ____ FY 2005: ____ FY 2006: ____ FY 2007: ____

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (111) kits	111	6.2																				
FY 2004 () kits																						
FY 2005 () kits																						
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
To Complete () kits																						
TOTAL	111	6.2																				

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	111																								
Out	111																								

	FY 2010				FY 2011				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: S-3B MODIFICATION TITLE: Critical Structures (OSIP 12-95)
Critical Structures Airframe Kit

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 4 Months PRODUCTION LEADTIME: 9 Months

CONTRACT DATES: FY 2004: ____ FY 2005: ____ FY 2006: ____ FY 2007: ____

DELIVERY DATE: FY 2004: ____ FY 2005: ____ FY 2006: ____ FY 2007: ____

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (111) kit	111	5.9																				
FY 2004 () kits																						
FY 2005 () kits																						
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
To Complete () kits																						
TOTAL	111	5.9																				

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	111																								
Out	111																								

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	TOTAL
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECT S-3B MODIFICATION TITLE: Critical Structures (OSIP 12-95) Inner Wing - BL 58/70 (AFC-292)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION NADEP Field Mod Team/MIP

ADMINISTRATIVE LEADTIME: Months PRODUCTION LEADTIME: Months

CONTRACT DATES: FY 2004: FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY () kits *	91	1.8	15	**																		
FY 2004 () kits *																						
FY 2005 () kits																						
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
To Complete () kits																						
TOTAL	91	1.8	15	**																		

* No A kits required. B kits provided by supply system.

**FY03 funds installs in FY04.

Commander, Sea Control Wing Pacific (CSCWP) planned to install BL-58/70 (AFC-292) during IMC Inspections. The war created non-availability of aircraft for FY-03 installations, therefore moving 15 installations to FY04.

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	91	4	4	4	3																				
Out	79	12	4	4	4	3																			

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	TOTAL
In										
Out										

Exhibit P-3a INDIVIDUAL MODIFICATION

MODIFICATION TITL S-3 Critical Avionics Upgrade (OSIP 20-95)

MODELS OF SYSTEM AFFECTE S-3B TYPE MODIFICATIC Safety/Obsolescence

DESCRIPTION/JUSTIFICATION:

This program replaces the Automatic Flight Control Systems (AFCS), Inertial Navigation Systems (INS), Flight Instruments, Mission Displays, and Armament Control Systems (ARMCOS) which have become significant obsolescence/non-supportability degraders for the S-3B aircraft. Modification of these critical avionics systems will ensure respective system operation and availability for the current and projected (2015) service life of the airframe. Trainer procurement is to incorporate all four systems into the S-3B Fleet Weapons Systems Trainers (WST), Position Trainer Complex Modules (PTCM) and Maintenance Trainers. The requirement for these modifications is described in Operational Requirements Document (ORD) 408-88-95 dated 13 July 95.

DIGITAL FLIGHT DATA COMPUTER (DFDC) (Engineering Change Proposal (ECP) 426): The Flight Data Computer (FDC) is the central computing component of the Automatic Flight Control System (AFCS). The present obsolete FDC is subject to failure modes which have been demonstrated to cause uncommanded roll input to the flight control system. This modification will be installed in all of the existing 109 S-3B aircraft.

CARRIER AIRCRAFT INERTIAL NAVIGATION SYSTEM (CAINS II); EMBEDDED Global POSITIONING SYSTEM (GPS) INERTIAL (EGI); ELECTRONIC FLIGHT INSTRUMENTS (EFI) (ECP 427): This is a replacement program for the S-3B navigation, heading and attitude system, and associated flight instruments. The existing system has become increasingly non-supportable due to parts obsolescence and material condition of the chassis and internal wiring. Replacement avionics hardware consists of a CAINS II, an EGI, four new EFIs for the cockpit, and 1553B digital Navigation Interface Unit (NIU) which connects the flight instruments to the navigation system bus and mission computer. The CAINS II and the EGI provide the two required heading platform stabilization sources necessary for embarked operations or night/instrument flight. This modification will be installed in all of the existing 109 S-3B aircraft.

STORES MANAGEMENT SYSTEM (SMS) (ECP NORIS 008-00) : This modification provides an obsolescence upgrade to the Armament Control Panel, Bomb Bay/Wing Decoders and wiring that comprise the current S-3 Armament Control System (ARMCOS) and a NDI digital Stores Management System (SMS) including small circular error probability weapon. An operable SMS is required for loading, carriage and/or jettison of any internal or external stores including the Aerial Refueling Store, torpedoes, and/or Harpoon. This modification will be installed in 42 S-3B aircraft, with B kits procured for 43 aircraft.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Milestone III decision for Critical Avionics Upgrade approved Oct 1995. DFDC hardware CDR held SEP 96, software CDR held MAY 97, EDM testing commenced DEC 97. CAINS/EGI/EFI system CDR held OCT 97, prototype install commenced JUL 98. RFP for SMS released MAY 98. Displays CDR held JUN 98.

Exhibit P-3a INDIVIDUAL MODIFICATION

MODIFICATION TITLE: S-3 Critical Avionics Upgrade (OSIP 20-95)

MODELS OF SYSTEM AFFECTED: S-3B TYPE MODIFICATION: Safety/Obsolescence

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits ***																						
SMS (ARMCOS)	42	2.0																				
CAINS/EFI/NIU	111 ***	17.8																				
Installation Kits N/R		15.7																				
Installation Equipment																						
DFDC	92 ***	8.4																				
CAINS	111 ***	43.1																				
SMS (ARMCOS)/MAVERICK PI	43	6.3																				
Installation Equipment N/R		31.4																				
Engineering Change Orders																						
Data		1.4																				
Training Equipment		8.7																				
Support Equipment																						
ILS		2.1																				
Other Support		46.9																				
Interim Contractor Support																						
Installation Cost		13.7																				
TOTAL PROCUREMENT	422	197.5																				

Notes:

1. Totals do not add due to rounding
2. Asterisk indicates amount less than 51K

*** One (1) Prototype (CAINS,DFDC,ARMCOS) and one (1) Trial Kit Installation (TKI) (CAINS,DFDC) procured via NRE will be installed in fleet aircraft bringing total aircraft to 111. Remaining nineteen (19) DFDC procured by ES-3A program.

Exhibit P-3a

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: S-3B MODIFICATION TITLE: S-3 Critical Avionics Upgrade (OSIP 20-95) SMS (ARMCOS)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 4 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2004: ____ FY 2005: ____ FY 2006: ____ FY 2007: ____

DELIVERY DATE: FY 2004: ____ FY 2005: ____ FY 2006: ____ FY 2007: ____

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (42) kits *	42	3.1																				
FY 2004 () kits																						
FY 2005 () kits																						
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
To Complete () kits																						
TOTAL	42	3.1																				

* Includes one (1) Prototype

Twenty-five (25) installs funded in FY02 were installed in FY03.

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	42																								
Out	42																								

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	TOTAL
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: S-3B MODIFICATION TITLE: S-3 Critical Avionics Upgrade (OSIP 20-95) CAINS II

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: FY 97 prototype/TKI was procured as contractor "turn-key". FY 98 and out are Contractor Field Mod Team (Airframe Block).

ADMINISTRATIVE LEADTIME: 4 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2004: ____ FY 2005: ____ FY 2006: ____ FY 2007: ____

DELIVERY DATE: FY 2004: ____ FY 2005: ____ FY 2006: ____ FY 2007: ____

($ in Millions)

Cost:	Prior years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (111) kits *	107	10.6	2 **																			
FY 2004 () kits																						
FY 2005 () kits																						
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
To Complete () kits																						
TOTAL	107	10.6	2 **																			

* Includes one (1) Prototype and one (1) TKI. Ten (10) installs funded in FY01 and prior were installed in FY2003.

** One (1) install funded in FY03 will be installed in FY04

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	107	2																							
Out	105	4																							

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	TOTAL
In										
Out										

NOTE: Two (2) aircraft striken before their scheduled CAINS II install.

Exhibit P-3a INDIVIDUAL MODIFICATION

MODIFICATION TITLE: Co-Processor Memory Unit (OSIP 04-96)

MODELS OF SYSTEM AFFECTED: S-3B TYPE MODIFICATION: Unservicable

DESCRIPTION/JUSTIFICATION:

The Co-Processor Memory Unit (CPMU) replaces the S-3B MMU-576 Drum Memory Storage (DMS) Unit, the OL-230 Post and Display Processor (PDP) and the AN/AYK-10 General Purpose Digital Computer (GPDC). The Operational Requirements Document (ORD) # OR-927-AS was approved 27 Mar 77 and stated the requirement for software and computer capability to support a targeting capability and direct exchange of data between CV, CVW and surface assets. Moreover, the reliability, maintainability, and obsolescence of the DMS, PDP, and GPDC has degraded to levels which significantly hinder the ability to meet aircraft tactical mission requirements. The CPMU development agreement between the U.S. Navy and Canadian Government contained the requirement for an open architecture design which replaced obsolete equipment. The CPMU fully emulates the DMS and replaces 5 WRA's, resulting in significant space/weight savings. CPMU incorporates an open architecture design as a foundation for future processor growth. CPMU will host a mission program written in ADA software language (RDT&E funded). Trainer procurement is for maintenance trainer A and B kits. The ECP for this effort is Loral AYK-23-002 (with revisions) which modifies 65 aircraft and provides growth interfaces to host additional mission equipment. Procurement includes mission enhancements to provide for compatibility with S-3B Surveillance System Upgrade (which encompasses an APS-137 radar and EO/IR sensor) and is in conformance with the ORD cited above.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

The Co-Processor Memory Unit (CPMU) program was initiated as a joint U.S. Navy/Canadian industrial base development effort in 1991. A competitive development contract was awarded in FY 1992. Installation of EDM was completed in April 1995. Approval for LRIP was received in June 1996. LRIP production contract was awarded in June 1996. TKI commenced August 1998. Operational Testing was successfully completed in March 1999. Milestone III decision was approved in June 1999. First Fleet installs began in June 1999.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E (H0489)		38.4																				
PROCUREMENT																						
Installation Kits																						
AYK-23 (SSU) **	2	.1																				
AYK-23	65	1.4																				
Installation Kits N/R		.3																				
Installation Equipment																						
AYK-23 (SSU) **	2	1.9																				
AYK-23	65	31.9																				
Installation Equipment N/R		2.8																				
Engineering Change Orders																						
Data		.4																				
Training Equipment	1	.9																				
Support Equipment		.1																				
ILS		1.2																				
Other Support		7.3		.1																		
Interim Contractor Support																						
Installation Cost	64	1.9	2	*																		
TOTAL PROCUREMENT	199	50.2	2	.1																		

Notes:

1. Totals do not add due to rounding
2. Asterisk indicates amount less than 51K

** AYK-23 (SSU) A&B kits installed at "O" level.

Exhibit P-3a

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: S-3B MODIFICATION TITLE: Co-Processor Memory Unit (OSIP 04-96)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Field Mod Team

ADMINISTRATIVE LEADTIME: 4 Months PRODUCTION LEADTIME: 16 Months

CONTRACT DATES: FY 2004: FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (66) kits	64	1.9	2	*																		
FY 2004 () kits																						
FY 2005 () kits																						
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
To Complete () kits																						
TOTAL **	64	1.9	2	*																		

** Includes fleet end items for training.

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	64			2																					
Out	56	2	6	2																					

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	TOTAL
In										
Out										

Exhibit P-3a INDIVIDUAL MODIFICATION

MODIFICATION TITLE: Flight Critical Systems Sustainment (OSIP 04-06)

MODELS OF SYSTEM AFFECTED: S-3B TYPE MODIFICATION Safety

DESCRIPTION/JUSTIFICATION:

The purpose of this program is to provide funding to implement airframe and avionic modifications to flight critical S-3B systems that are essential to the continued safe operational employment and support of the S-3B aircraft. These include but are not limited to airframe changes to inner and outer wing spars discovered during the Full Scale Fatigue test and are required to safely operate the aircraft until FY2009, and replacement of Kapton wiring harness's to Critical Avionics equipment.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

The modifications identified are minor and do not require approval for full production.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
Inner/Outer Wing Spars							15	.1	10	.1												
Critical Avionics wiring							15	.1	10	.1												
Installation Kits N/R								.1		.1												
Installation Equipment																						
Installation Equipment N/R																						
Engineering Change Orders																						
Data								.1		.1												
Training Equipment																						
Support Equipment																						
ILS								.1		.1												
Other Support								.3		.3												
Interim Contractor Support																						
Installation Cost																						
TOTAL PROCUREMENT							30	.8	20	.8												

Notes:

1. Totals do not add due to rounding
2. Asterisk indicates amount less than 51K
3. Installation for kits is "O" level.

CLASSIFICATION: UNCLASSIFIED

Exhibit P-40, BUDGET ITEM JUSTIFICATION

DATE: **February 2005**

APPROPRIATION/BUDGET ACTIVITY	P-1 ITEM NOMENCLATURE
Aircraft Procurement, Navy/APN-5 Aircraft Modifications	**E-2C Series Modification**
Program Element for Code B Items:	Other Related Program Elements
Aircraft Procurement, Navy/APN-5 Aircraft Modifications	

	Prior Years	ID Code	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	To Complete	Total
QTY		A										
COST (In Millions)	**992.0**	A	**49.8**	**15.1**	**13.7**	**9.4**	**9.4**	**8.6**	**8.9**	**9.1**	**495.3**	**1,611.1**

This line item funds modifications to E-2C aircraft. The E-2C is an all weather, carrier based, airborne early warning and command and control aircraft that extends task force defense perimeters by providing early warning of approaching enemy units and by vectoring interceptors into attack position. Additionally, the HAWKEYE provides strike control, radar surveillance, search and rescue assistance, communications relay and automatic tactical data exchange. The E-2C aircraft design service life is 10,000 flight hours with an average service life remaining through FY 2015. The E-2C is a critical element of the Navy's Cooperative Engagement Capability (CEC). The Structural Enhancements OSIP (121-87) provides for procurement and installation of the new eight (8) bladed propeller. The Block II Upgrade OSIP (74-88) funds commercial technology, E-2C Warning Detection System, Radar Obsolence, Vapor Cycle and Engine Turbine Blade reliability improvements and emerging safety of flight items such as parachute survival ensemble (PSE), cockpit lighting, and flight instruments. As the result of technological advancements, the Commercial-Off-The-Shelf (COTS) hardware/software of the Mission Computer (MCU) will change or become obsolete in the very near future. The Technology Insertion OSIP (5-01), supports assembly, validation and configuration management of COTS hardware/software of the MCU. The Outer Wing Panel (OWP) OSIP (87-88), funds OWP enhancements, Critical War Fighting Enhancements OSIP (19-04) funds preliminary design, prototype, flight test, and instrumentation engineering for an In-Flight Refueling (IFR) kit.

The specific modifications budgeted and programmed are:

(TOA, $ in Millions)

OSIP No.	Description	Prior Years	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	To Complete	Total
121-87	Structural Enhancements	291.6	3.8	3.8	2.6	0.8					**6.9**	
74-88	Block Upgrade II	407.5	8.7	3.0	2.7	1.1	0.1				**110.9**	
87-88	Outer Wing Panels	116.2	1.5	0.6	1.2	1.1	0.8				**75.9**	
19-99	Block Upgrade III	147.0	25.1								**247.3**	
05-01	Technology Insertion	26.2	7.4	7.7	7.2	6.5	8.5	8.6	8.9	9.1	**54.4**	
22-03	NAVIGATION IMPROVEMENTS	3.6	0.3									**3.8**
19-04	Critical Warfighting Enhanceme		3.0									**3.0**
Total		**992.0**	**49.8**	**15.1**	**13.7**	**9.4**	**9.4**	**8.6**	**8.9**	**9.1**	**495.3**	**6.8**

Note: Totals may not add due to rounding.

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: Structural Enhancements (OSIP 121-87)

MODELS OF SYSTEMS AFFECTED: E-2C | TYPE MODIFICATION: Safety

DESCRIPTION/JUSTIFICATION:

Analysis and fatigue test results disclosed that the wing center sections, the nose landing gear brace trunnion fitting, upper longeron splice, main beam lock fitting, lower wing skin fold actuator support fitting, rear beam lower cover splice, and rear beam lower cover skin in E-2C aircraft produced prior to aircraft 96 would fail due to fatigue prior to 10,000 flight hours. In order to extend the operational life of aircraft produced prior to aircraft 96, it is necessary to modify these areas. This modification installs an enhanced wing center section into thirty-four (34) aircraft and provides for modification of the drag brace trunnion, longeron splice, main beam lock fitting, lower wing skin fold actuator support fitting, rear beam lower cover splice and skin.

The Navy Inventory Control Point (NAVICP) projected an E-2C propeller shortage in FY 2000. As a result, NAVICP approved a Logistics Engineering Change Proposal (LECP) to procure a new eight-blade propeller for the E-2C program office. The LECP funds the non-recurring and the procurement of 187 propellers only. The E-2C program office is responsible for funding the ground/flight test and overall system integration between Northrop Grumman (airframe), Allison (engine) and Hamilton-Sunstrand(propellers). The ground/flight test and prototype propeller kits were funded with APN-1 funds starting in FY99. Starting in FY00 retrofit propeller kits and installs were funded with APN-5 funds for seventy-five (75) E-2 aircraft.

Repeatedly, E-2C Hawkeye and C-2A Greyhound elevator trim actuators have failed in flight and on deck, causing the aircraft to go into an immediate nose down flight profile. In some cases, the aircraft has lost half its altitude before control was regained. The community assesses this risk as potentially catastrophic. Failure of the elevator trim actuator occurs when an internal thrust bearing fails, allowing the rod end to seperate from the actuator housing, resulting in an abrupt nose down trim. Safety ECP (NI 1004-04 Trim Actuator) provides a hardware correction by opening the elevator trim actuator, changing the bushing and other component parts.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

NP2000 Developmental Component Testing is complete. First sucessful developmental flight test took place in April 01. Flight test completed 2nd QTR 04. In FY04, the OSIP ramped up the installation of propellers with associated ILS and other support. NP2000 production approved July 03.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
ECP 367R1-WCS Ehancement	28	138.6																				
LECP NP2000 Propellers	75	1.2																				
Trim Actuator (ECP NI 1004-04)			75	0.5	75	0.5																
Installation Kits N/R		14.3		0.0																		
Installation Equipment																						
Generators (DERF)	283	4.4																				
Installation Equipment N/R				0.7																		
Engineering Change Orders		0.8																				
Data		0.8		0.1																		
Training Equipment	1	2.8		0.2		0.5																
Support Equipment		1.4																				
Automatic Wiring Analysis		0.8																				
ILS																						
LECP NP2000 Propellers		3.3		0.2		0.3																
Other Support		25.4		0.0		0.0																
LECP NP2000 Propellers		5.3		0.2		0.1																
Interim Contractor Support																						
Installation Cost																						
ECP 367R1-WCS Ehancement	28	92.5																				
LECP NP2000 Propellers	1	0.1	19	2.0	24	2.4	24	2.6	7	0.8												
Total Procurement		**291.6**		**3.8**		**3.8**		**2.6**		**0.8**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: E-2C

MODIFICATION TITLE: Structural Enhancements (OSIP 121-87)

INSTALLATION INFORMATION: This installation information is for the NP2000 Propeller LECP

METHOD OF IMPLEMENTATION: Contractor Depot Field Mod Team

ADMINISTRATIVE LEADTIME: 1 Months

PRODUCTION LEADTIME: 4 Months

CONTRACT DATES: FY 2004: FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY (75) kits	1	*	19	2.0	24	2.4	24	2.6	7	0.8												
FY 2004 ( ) kits																						
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	**1**	*****	**19**	**2.0**	**24**	**2.4**	**24**	**2.6**	**7**	**0.8**												

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	1	4	5	5	5	6	6	6	6	6	6	6	6	7											
Out	1	4	5	5	5	6	6	6	6	6	6	6	6	7											

	FY 2010				FY 2011				To	Total
	1	2	3	4	1	2	3	4	Complete	
In										
Out										

Notes:

1. Fleet installation schedule shifted due to flight test evaluation, aircraft inspection, and power plant repair delays.
2. Asterisk indicates amount less than $50K

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: Block Upgrade II (OSIP 74-88)

MODELS OF SYSTEMS AFFECTED: E-2C | TYPE MODIFICATION: Mission Performance Enhancement /Safety

DESCRIPTION/JUSTIFICATION:
The Block II Upgrade OSIP (74-88) funds commercial technology, E-2C Warning Detection System, Radar Obsolence, Vapor Cycle and Engine Turbine Blade reliability improvements and emerging safety of flight items such as parachute survival ensemble (PSE), cockpit lighting, and flight instruments.

ECP 400 - "Group I to Group II Configuration" including the following items: Radar Update, Joint Tactical Information Distribution System (JTIDS), Enhanced High Speed Procesor (EHSP), NAVSTAR Global Positioning System (GPS), Enhanced Displays, and Improved Identification Friend or Foe (IFF) System have been completed for all but (2) Group I aircraft.

Group II Mission Computer Replacement Program (GrIIm RePR). This effort is a Commercial Off the Shelf (COTS) technology transition modification program and does not expand the functional envelope of the current Weapon System.

ECP 403 - "Navigation Upgrade" consists of the following items:
A. Standard Automatic Flight Control System (SAFCS) Computer: The AN/ASW-15 automatic flight control system (AFCS) presently installed is an obsolete design using 1950's technology. The performance of this system has never provided satisfactory stability augmentation, which remains as an outstanding deficiency from the original flight test program. Incorporation of a standardized AFCS computer is planned as the first step in the solution to the problem. This unit will be developed and built using modern design methods and will provide improved system performance in all areas.
B. Laser-Gyro Carrier Aircraft Inertial Navigation Systems (CAINS)ASN-139: The ASN-139 is being developed to reduce system costs by application of laser gyro technology to replace current electromechanical sensors in CAINS. Reliability will be increased and alignment time reduced. A five-to-one reduction in operation and support costs, compared with the presently installed ASN-92 CAINS, is expected. Sixteen (16) aircraft will be modified from a Group I to Group II configuration and thirty-seven (37) aircraft will receive the Navigation Upgrade modification. ORD Number 31-20 dated 23 Jan 66.

E-2C Warning Detection System: Dual Element (Safety ECP 934-01) and Oil Pressure Transmitter (OPT) Warning Detection System (Safety ECP 938-01) - Replaces T56-A-427 Dual Element and Oil Pressure Warning System in the E-2C Aircraft to alleviate false warning indications. Seventy-four (74) aircraft will be retrofitted.

Radar Obsolesence - Funds non-recurring and recurring engineering efforts for Obsolescence/Readiness Improvements to the APS-145 which is the number one weapon system mission degrader.

ECP 939-01 - "Vapor Cycle" - Funds wiring modification, rebussing of under sized wiring between circuit breakers in the vapor cycle system. Fifty-Two (52) aircraft will be retrofitted with this modification.

Engine Turbine Blade Cost Reduction & Effectiveness Improvement (CREI) - ' T56-A-427 First Stage Turbine Blade-Track Seal Replacement' - A more durable metal blade track seal will replace the current ceramic seal. This design change is consistent with newer technology engines and is expected to increase the reliability of the T56-A-427 engine by reducing low power removals.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:
Kits are being procured and installed on all applicable aircraft.

Exhibit P-3a — Individual Modification

MODIFICATION TITLE: Block -Upgrade II (OSIP 74-88)

MODELS OF SYSTEMS AFFECTED: E-2C

TYPE MODIFICATION: Mission Performance Enhancement /Safety

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
ECP 400 - GRP I to GRP II	13	93.7																				
ECP 403 - NAV Upgrade	10	9.1																				
ECP 402R1 - Eng Oil Warning	13	1.1																				
ECP 246R1 - 01 DEFW	78	0.1																				
ECP 410 - SATCOM	4	0.3																				
Safety ECP 934-01 DEFW	74	1.7																				
Safety ECP 938-01 OPT	74	0.7																				
Safety ECP 939-01 Vapor Cycle	52	0.5																				
Installation Kits N/R		47.9																				
ECP 2133 Fuel Nozzles		1.9																				
Engine Turbine Blade (CREI)		1.2		1.1		0.8		0.8		0.7												
ECP GrIIMRpr		15.3																				
Installation Equipment																						
ECP 400 - GRP I to GRP II	13	29.5																				
ECP 403 - NAV Upgrade	10	5.5																				
Radar Obsolescence				6.3		1.1		1.0														
Installation Equipment N/R		1.0																				
Engineering Change Orders																						
Data		15.2																				
Training Equipment	2	59.4																				
Support Equipment		40.9																				
ILS		15.5																				
Other Support		21.8		0.5		0.4		0.4		0.0												
Interim Contractor Support																						
Installation Cost																						
Safety ECP 939-01 Vapor Cycle	2	0.1	12	0.3	12	0.3	9	0.2	12	0.3												
Safety ECP 934-01 DEFW	33	1.1	18	0.6	13	0.4	10	0.3														
ECP 400 - GRP I to GRP II	13	37.8																				
ECP 403 - NAV Upgrade	10	6.5																				
Total Procurement		**407.5**		**8.7**		**3.0**		**2.7**		**1.1**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: E-2C

MODIFICATION TITLE: Block Upgrade II (OSIP 74-88)

INSTALLATION INFORMATION: This installation information is for the Dual Element Fire Warning Safety ECP 934-01

METHOD OF IMPLEMENTATION: Depot Driven-in Modification (DIM)

ADMINISTRATIVE LEADTIME: 1 Months

PRODUCTION LEADTIME: 1 Months

CONTRACT DATES: FY 2004: FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (74) kits	33	1.1	18	0.6	13	0.4	10	0.3														
FY 2004 ( ) kits																						
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	**33**	**1.1**	**18**	**0.6**	**13**	**0.4**	**10**	**0.3**														

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	33	5	5	4	4	4	4	3	2	4	4	2													
Out	30	3	5	5	4	4	4	4	3	2	4	4	2												

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: E-2C

MODIFICATION TITLE: Block Upgrade II (OSIP 74-88)

INSTALLATION INFORMATION: This installation is for the Vapor Cycle Safety ECP 939-01

METHOD OF IMPLEMENTATION: Depot Driven-in Modification (DIM)

ADMINISTRATIVE LEADTIME: 1 Months

PRODUCTION LEADTIME: 5 Months

CONTRACT DATES: FY 2004: FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY (52) kits	2	0.1	12	0.3	12	0.3	9	0.2	12	0.3												
FY 2004 ( ) kits																						
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	**2**	**0.1**	**12**	**0.3**	**12**	**0.3**	**9**	**0.2**	**12**	**0.3**												

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	2	3	3	3	3	3	3	3	3	3	2	2	2	3	3	3	3								
Out	2		3	3	3	3	3	3	3	3	3	2	2	2	3	3	3								

	FY 2010				FY 2011				To	Total
	1	2	3	4	1	2	3	4	Complete	
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: Outer Wing Panel (OSIP 87-88)

MODELS OF SYSTEMS AFFECTED: E-2C | TYPE MODIFICATION: Safety

DESCRIPTION/JUSTIFICATION:

The E-2C fatigue test and inspection of aircraft have identified fatigue stress cracks in Outer Wing Panels (OWP) which could cause loss of aircraft and resulting in injury or loss of personnel. The OWP's installed on the E-2C aircraft are flight hour limited as follows: OWP's installed on T56-A-425 configured aircraft are limited to 6,000 flight hours and OWP's installed on T56-A-427 configured aircraft are limited to 7,500 flight hours. Teardowns of fleet OWP's showed that overhaul of the OWP is neither technically practical nor cost effective. This modification develops and incorporates enhancements to the OWP which extends the aircraft service life thru FY 2015. There are seventy-five (75) aircraft in the inventory. Thirty-four (34) aircraft will be enhanced with the AYC-1222 OWP (ECP 91145/C2A/859-97 Rev. (A) increasing the fatigue life limit of E-2C Outer Wing Panels. FY04 funding of $1.5 million was a Congressional plus-up.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
ECP 91145/C2-A/859-97 Rev.A			8	0.5	6	0.4	5	0.3	5	0.3												
ECP 362R2C2-OWP	82	77.7																				
ECP 378 Redesigned OWP	10	22.0																				
ECP 383R1C1 SDRS	108	0.6																				
Attaching Hardware	5	1.4																				
Installation Kits N/R		6.8																				
ECP-434R1 Nav Upgrade OWP		0.8																				
Installation Equipment																						
ECP 383R1C1 SDRS		3.0																				
Installation Equipment N/R																						
Engineering Change Orders																						
Data		1.7																				
Training Equipment																						
Support Equipment		0.9																				
ILS		0.3																				
Other Support		0.4				0.2		0.1		0.1												
Interim Contractor Support																						
Installation Cost																						
ECP 91145/C2A/859-97 Rev A			4	1.0	4		6	0.8	5	0.6												
ECP 362R2C2 OWP	82	0.7																				
Total Procurement		**116.2**		**1.5**		**0.6**		**1.2**		**1.1**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: E-2C

MODIFICATION TITLE: Outer Wing Panel (OSIP 87-88)

INSTALLATION INFORMATION: ECP 91145/C-2A/859-97 Rev. A

METHOD OF IMPLEMENTATION: Depot Drive-in Modification (DIM)

ADMINISTRATIVE LEADTIME: 3 Months

PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2004: Nov-03 FY 2005: Mar-05 FY 2006: Mar-06 FY 2007: Mar-07

DELIVERY DATE: FY 2004: May-04 FY 2005: Sep-05 FY 2006: Sep-06 FY 2007: Sep-07

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits																						
FY 2004 (8) kits			4	1.0	4																	
FY 2005 (6) kits							6	0.8														
FY 2006 (5) kits									5	0.6												
FY 2007 (5) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete (10) kits																						
TOTAL			**4**	**1.0**	**4**		**6**	**0.8**	**5**	**0.6**												

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In				2	2	1	1	1	1	1	1	2	2	1	2	1	1								
Out					2	2	1	1	1	1	1	1	2	2	1	2	1									

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: Block Upgrade III (OSIP 19-99)

MODELS OF SYSTEMS AFFECTED: E-2C | TYPE MODIFICATION: Mission Performance Enhancement

DESCRIPTION/JUSTIFICATION:

The HAWKEYE 2000 OSIPs (Satellite Communications 21-95, Vapor Cycle 22-95, Mission Computer Upgrade 4-97, and Cooperative Engagement Capability 12-97) were consolidated into one engineering change proposal (ECP-418) to realize efficiencies in cost and scheduling. Subsequent to establishment of ECP-418, it has become exceedingly difficult to coordinate kit and install quantities, contract dates, and training requirements across the four ECP-418 OSIPs. Beginning in FY 1999 the ECP-418 OSIPs were combined into one new OSIP, 19-99 Block Upgrade III. Consolidation of the OSIPs provides management a concise picture of cost and schedule requirements to modify and field HAWKEYE 2000 aircraft. The funding in FY99 thru FY00 for training equipment is to support the HAWKEYE 2000 production aircraft. The funding procured one (1) of two (2) CEC Antenna Trainers, two (2) of three (3) Weapon System Trainer (WST) modifications, Maintenance trainer design, WST design, Computer Based Trainer (CBT) update, training curriculum and initial training. To complete includes one (1) Integrated System Maintenance Trainer (ISMT), one (1) CEC Antenna Trainer and one (1) Weapon System Trainer modifications. There are seventy-five (75) total aircraft in the inventory. To date three (3) aircraft have been retrofitted with this ECP. Navy intends on retrofitting a portion of the E-2C aircraft above and beyond the 21 aircraft multi-year procurement.

Satellite Communication (SATCOM): By JCS directives, all components of the Armed Forces who have satellite communications must be able to communicate using the Demand Assign Multiple Access (DAMA) waveform and be capable of narrow band secure voice. To meet these requirements the E-2C program will integrate Mini-DAMA into the aircraft. The Mini-DAMA unit is a UHF, full duplex radio with four full duplex ports and eight half duplex baseboard input/output. It incorporates the UHF SATCOM, line of sight radio functions, 5 and 25 KHz DAMA waveforms and embedded OTCIXS II, KGV-11 (TRANSEC) and COMSEC module for oderwire encryption for both 5 and 25 KHz DAMA functions. The Mini-DAMA has growth provisions for secure voice (ANDVT), TADIX-A, KG-84A and SAFENET. Previously OSIP# 21-95. ORD Number 174-094-87 dated 12 Aug 87. Fifty-Five (55) of the seventy-five (75) aircraft in inventory will be retrofitted with this modification. FY04 funding of $3.0 million was a Congressional plus-up. "O" Level Install

Mission Computer Upgrade (MCU): The L-304 central data processing computer uses inputs from onboard sensors, data links, and a library of stored data to present a symbolic representation of the tactical situation to the operators. Data expansion resulting from Update Development Program II has pushed the computer capability to it's ultimate limit, preventing utilization of improved target detection which could be achieved by emerging radar technology, infrared search and track, and SATCOM. All of these technologies are needed for execution of the E-2C battle management mission and for cooperative engagement operations. This OSIP funds retrofit of a replacement computer based on proven advances in computer technology and developed under the RDT&E Program Element No. 0204152N. As part of the MCU suite, the three (3) existing Cathode Ray Tube displays will be replaced with Advance Control Indicator Set (ACIS) workstations incorporating flat panel displays, and connected via a local area network. The layout of the ACIS workstation controls has been heavily influenced by Fleet inputs. Additionally, based on Commercial Off The Shelf (COTS) technology, the ACIS workstations will streamline Integrated Logistics Support and facilitate future upgrades. Previously OSIP# 4-97. ORD Number 371-88-94 dated 20 Sep 94. There are seventy-five (75) aircraft in the inventory. Navy intends on retrofitting a portion of the E-2C aircraft above and beyond the 21 aircraft multi-year procurement.

Cooperative Engagement Capability (CEC): The Navy has developed the capability to share sensor data through a network and perform the targeting process using sensors installed in remote platforms to augment the target position information on individual ships. The E-2C radar and passive detection systems provide vital target information over an increased surveillance area for greater situational awareness and provides early warning of distant targets. This program identifies the costs associated with integrating CEC into 53 E-2Cs and developing the support structure necessary to successfully deploy the system. Previously OSIP# 12-97. ORD Number 388-86-95 dated 4 Jan 95. There are seventy-five (75) aircraft in the inventory. Navy intends on retrofitting a portion of the E-2C aircraft above and beyond the 21 aircraft multi-year procurement. FY04 funding was increased to retrofit six (6) Hawkeye 2000 with CEC.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Vapor Cycle: N/A.

Mission Computer Upgrade (MCU): LRIP decision was granted in July 1997. TECHEVAL was sucessfully completed in Oct. 2000. OPEVAL was successfully completed in July 01. Full Rate Production began in FY01.

Cooperative Engagement Capability (CEC): PEO TAD(C) is the sponsor of Cooperative Engagement Capability. CEC OPEVAL completed May 2004.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
ECP 418-Hawkeye CEC MCU	3	26.2																				
E-2C SATCOM MINI-DAMA	17	6.0	5	1.6																		
Installation Kits N/R				1.0																		
Installation Equipment																						
CEC Boxes	5	28.9	6	22.1																		
ECP 418-Hawkeye CEC MCU	3	32.6																				
Installation Equipment N/R																						
Engineering Change Orders																						
Data		0.7																				
Training Equipment	3	34.6																				
ISMT Trainer																						
Support Equipment		0.9																				
ILS		0.1		0.2																		
Other Support		8.1		0.3																		
Interim Contractor Support																						
Installation Cost																						
ECP 418-Hawkeye 2000	3	8.7																				
Total Procurement		**147.0**		**25.1**																		

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: Technology Insertion (OSIP 05-01)

MODELS OF SYSTEMS AFFECTED: E-2C | TYPE MODIFICATION: Mission Performance Enhancement

DESCRIPTION/JUSTIFICATION:

Commercial technology obsolescence drives hardware and software changes in Computing Resources for the E-2C Aircraft. Funding is required to support capability for assembly, validation, and configuration management of Commercial Off-The-Shelf (COTS) hardware/software provided to fleet squadrons and updated on a 4-year technology insertion cycle. Specific examples include video boards, memory boards, CPU cards, compilers, middleware, backplanes, and operating systems that will change or become obsolete. The new configuration must be validated, integrated, and controlled. There are seventy-five (75) aircraft in the inventory.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

The Hawkeye 2000 Program Support Activity (PSA) will insure software is upgraded, revised, and integrated so it functions with the versions of the COTS hardware and software delivered. The integration effort must start no less than one year prior to the delivery.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
Installation Kits N/R																						
Installation Equipment																						
Installation Equipment N/R																						
Engineering Change Orders																						
Data																						
Training Equipment																						
Support Equipment																						
ILS		1.7		0.6																		
Other Support																						
ACIS & MC Upgrade Support		2.4		0.4		0.5		0.6		0.6												
CEC CM & Upgrade Support		1.5		0.4		0.5		0.7		0.5												
Software Tools		2.8		1.5		0.7		1.2		0.9												
Software Integration & CM		8.6		1.2		2.0		1.9		1.8												
Software Upgrades		9.2		3.3		4.0		2.7		2.6												
Interim Contractor Support																						
Installation Cost																						
Total Procurement		**26.2**		**7.4**		**7.7**		**7.2**		**6.5**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: Navigation Improvements (OSIP 22-03)

MODELS OF SYSTEMS AFFECTED: E-2C | TYPE MODIFICATION: Safety

DESCRIPTION/JUSTIFICATION:

These resouces will be used to install a Commercial Off-the-Shelf (COTS) VOR/ILS system, the Garmin GNS-530, for non-precision and precision approach. Installation of a COTS precision approach system will ensure E-2C has the ability to safely land at airfields worldwide in support of ongoing anti-terrorism and anti-drug operations. E-2C currently relies on Precision Approach Radar (PAR) for precision approach and Tactical Air Navigation (TACAN) for non-precision approach. Since these aids to navigation are being retired out of service in the United States and are virtually non-existent worldwide, the E-2C aircraft now requires the ability to utilize ground-based Very High Frequency Omnibearing Range (VOR) for non-precision approach and Instrument Landing System (ILS) for precision approach and landing in poor weather.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Safety ECP 91145/E2C2/994-04 applies. CCB Approval 13 Apr 04. Three (3) E-2C Group II Aircraft have been sucessfully prototyped. Carrier Suitability and TEMPEST testing complete. T&E was completed by the end of FY04. Fleet installs began 1st quarter FY05. Logistics Elements are funded via PMA 209 CNS/ATM & Reserve Funding.
FY-04 Special Interest funding for Drug Interdiction and Counter-Drug Activities in the amount of $262K issued 20 Jul 04.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits	36	1.1																				
Installation Kits N/R																						
Installation Equipment		0.8																				
Installation Equipment N/R																						
Engineering Change Orders																						
Data				0.3																		
Training Equipment																						
Support Equipment																						
ILS																						
Other Support																						
Interim Contractor Support																						
Installation Cost	36	1.6																				
Total Procurement	**36**	**3.6**		**0.3**																		

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: E-2C

MODIFICATION TITLE: Navigation Improvements (OSIP 22-03)

INSTALLATION INFORMATION: Safety ECP 91145/E2C2/994-04

METHOD OF IMPLEMENTATION: Contractor Field Service Team Modifications

ADMINISTRATIVE LEADTIME: 6 Months

PRODUCTION LEADTIME: 2 Months

CONTRACT DATES: FY 2003: Aug-04 FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2003: Oct-04 FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (36) kits	36	1.6																				
FY 2004 ( ) kits																						
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	36	1.6																				

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In					4	8	8	8	8																
Out						4	8	8	8	8															

	FY 2010				FY 2011				To	Total
	1	2	3	4	1	2	3	4	Complete	
In										
Out										

Exhibit P-3a Individual Modification

MODIFICATION TITLE: Critical Warfighting Enhancement (OSIP 19-04)

MODELS OF SYSTEMS AFFECTED: E-2C TYPE MODIFICATION: Mission Performance Enhancements

DESCRIPTION/JUSTIFICATION:
Near term warfighting improvements, based on lessons-learned from Operation Enduring Freedom (OEF), and Operation Iraqi Freedom (OIF), identified a requirement for increased E-2C on-station time for battlespace surveillance and targeting. Initial efforts will focus on demonstrating compatibility behind the F-18E/F tanker package, which is soon to be the only organic (off-the-ship) tanker in the Navy fleet, with the S-3 phasing out. FY04 funding is a Congressional plus-up to design, build and test one (1) Prototype In Flight Refueling Kit.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:
Contract award was 4th of FY04, with design integration activities continuing through 2nd Qtr FY05. Flight testing activities are tentatively scheduled to commence 3rd Qtr FY05.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
Installation Kits N/R			1	3.0																		
Installation Equipment																						
Installation Equipment N/R																						
Engineering Change Orders																						
Data																						
Training Equipment																						
Support Equipment																						
ILS																						
Other Support																						
Interim Contractor Support																						
Installation Cost																						
Total Procurement				**3.0**																		

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

CLASSIFICATION: UNCLASSIFIED

Exhibit P-40, BUDGET ITEM JUSTIFICATION

DATE: **February 2005**

APPROPRIATION/BUDGET ACTIVITY
Aircraft Procurement, Navy/APN-5 Aircraft Modifications

P-1 ITEM NOMENCLATURE
Trainer Aircraft Modification

Program Element for Code B Items:

Other Related Program Elements

	Prior Years	ID Code	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	To Complete	Total
QTY		A										
COST (In Millions)	**20.7**	A	**11.2**	**14.0**	**14.0**	**13.5**	**10.6**				**25.2**	**109.1**

This line item funds modifications to a group of trainer aircraft which includes T-34C, T-39, T-44A, TH-57, T-38, TC-12, and T-2C. The trainer aircraft are described as follows: The T-34C is a single engine turbo-prop, multi-seat aircraft produced by Beech Aircraft used to simulate jet aircraft flight; the T-39 is a dual-engine, multi-purpose aircraft used to train undergraduate flight officers; the T-44 is a twin-engine, multi-seat aircraft produced by Beech Aircraft used to simulate operation of twin engine aircraft, specifically the P-3; the TH-57 and TH-6 are a single-engine, multi-seat rotary wing aircraft used for helicopter training. The T-38 is a two seat twin-engine supersonic jet aircraft utilized by the US Navy Test Pilot School to train pilots, test flight officers, and test engines.

The overall goal of the modification is to maintain safe and reliable operation of the trainer aircraft through the timely installation of necessary changes. The specific modifications budgeted and programmed are:

(TOA, $ in Millions)

OSIP No.	Description	Prior Years	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	To Complete	Total
05-00	T-39 UMFOTS UPGRADE	11.2	0.5									11.6
28-00	T-39 WING REPLACEMENT	9.5	0.5								8.4	18.4
05-04	T-44 AVIONICS OBSOLESCENCE		7.3	6.6	7.9	7.7	5.4					34.8
15-04	T-38 A/C CONVERSION		2.9	6.0	6.1	5.7	5.1				16.7	42.6
03-05	T-44 OXYGEN MASK/BRAKE REPLACEMENT			1.4								1.4
06-05	TRAINER LEGACY A/C FAA			0.1	0.1	0.1	0.1				0.1	0.4
	Total	20.7	11.2	14.0	14.0	13.5	10.6				25.2	109.1

Note: Totals may not add due to rounding.

Exhibit P-3a — Individual Modification

MODIFICATION TITLE: UMFOTS Upgrade (OSIP 05-00)

MODELS OF SYSTEMS AFFECTED: T-39N and T-39G Aircraft and Ground Based Training System (GBTS) TYPE MODIFICATION: Conversion/Safety

DESCRIPTION/JUSTIFICATION: The block upgrade to the Undergraduate Military Flight Officer Training System (UMFOTS) is needed to enable the system to continue training and improve safety of flight. This block upgrade consists of the following aircraft improvements: radar array upgrade (to be incorporated into 17 T-39Ns and 1 CT-38G) , incorporation of GPS into 16 T-39N aircraft, incorporation of an Emergency Locator Transmitter (ELT) into the 8 T-39G aircraft, and incorporation of the Traffic Alert and Collision Avoidance System (TCAS II) into 17 T-39N and 8 T-39G aircraft. OPNAV approved the incorporation of the TCAS system which provides the capability for the T-39 aircraft to avoid mid-air collision. This system consists of a processor, transponder, indicator, control head, TCAS antenna top and bottom, and transponder antenna top and bottom. The incorporation of GPS into the T-39N aircraft complies with minimum FAA requirements for future U.S. airways operation. The GPS kit consists of a computer, antenna, wiring, and mounting hardware. GPS prototype was accomplished under separate modification with funds from PMA187. There are 17 T-39N in the fleet and 8 T-39Gs.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The components of this block upgrade will be COTS as turnkey items.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY2009		FY 2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
A Kit	16	1.7																				
B Kit	17	1.7	1	0.5																		
C Kit	8	0.2																				
D Kit	25	7.3																				
Installation Kits N/R																						
Installation Equipment																						
Installation Equipment N/R																						
Engineering Change Orders																						
Data																						
Training Equipment																						
Support Equipment																						
ILS																						
Other Support		0.3																				
Interim Contractor Support																						
Installation Cost	66		1																			
Total Procurement	**66**	**11.2**	**1**	**0.5**																		

Notes:
1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **T-39N,T-39G and Ground Based Training System** MODIFICATION TITLE: UMFOTS Upgrade (05-00)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Concurrent with ACI or Drop-in at CLS Depot Facility**

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 1 Months

CONTRACT DATES: FY 2004: Nov-03 FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: Dec-03 FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits	66																					
FY 2004 ( ) kits			1																			
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	**66**		**1**																			

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	66	1																							
Out	66	1																							

	FY 2010				FY 2011				To Complete	Total
	1	2	3	4	1	2	3	4		
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: T-39 Wing Replacement (OSIP 28-00)

MODELS OF SYSTEMS AFFECTED: T-39N, T-39G | TYPE MODIFICATION: Safety

DESCRIPTION/JUSTIFICATION: The T-39 Aircraft is a commercial off-the-shelf aircraft utilized for training Undergraduate Military Flight Officers. The aircraft was structurally reinforced and a Supplemental Type Certificate (STC) was issued to allow the aircraft to fly within the operational envelope. The wings are rapidly approaching expiration of their fatigue life. Wing replacement is mandatory to avoid safety of flight issues. A rotational replacement of wings is required every four years under the existing operational envelope and known data. This modification provides replacement for one rotation with used wings on all 15 T-39 aircraft. This modification also incorporates Fatigue Data Recorders on the wings of 9 of the 15 T-39N aircraft that do not have Recorders already installed. The Fatigue Data Recorders will allow more effective and accurate tracking of the wing fatigue life and help to eliminate a second wing replacement in the future on some of the T-39N aircraft. An additional 8 wings were approved to be installed on the T-39G's, increasing the total number of wings to 23.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The wings are commercially available, non-developmental items (NDI) and will be installed during ACI by the commercial contractor. The Fatigue Data Recorders are a COTS turnkey procurement.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
A Kit	15	4.5																				
B Kit	9	0.5																				
Installation Kits N/R																						
Installation Equipment																						
Installation Equipment N/R																						
Engineering Change Orders																						
Fatigue Life Expended ECP		1.1																				
Data		0.1																				
Training Equipment																						
Support Equipment																						
ILS																						
Other Support																						
Interim Contractor Support																						
Installation Cost	23	3.2	1	0.5																		
Total Procurement	**24**	**9.5**		**0.5**																		

Notes:
1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **T-39N, T-39G Aircraft** MODIFICATION TITLE: T-39 Wing Replacement (OSIP 28-00)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Concurrent with ACI or as a Drop-in Modification at CLS Contractor Depot Facility**

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 1 Months

CONTRACT DATES: FY 2004: Nov-03 FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: Dec-03 FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits	23	3.2	1	0.5																		
FY 2004 ( ) kits																						
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	**23**	**3.2**	**1**	**0.5**																		

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	23	1																							
Out	23		1																						

	FY 2010				FY 2011				To Complete	Total
	1	2	3	4	1	2	3	4		
In									8	
Out									8	

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: T-44A Avionics Obsolescence (OSIP 05-04)

MODELS OF SYSTEMS AFFECTED: T-44A | TYPE MODIFICATION: Safety

DESCRIPTION/JUSTIFICATION: The T-44A Avionics are becoming non-supportable due to non-availability of parts. The following avionics systems require replacement: NCS-31A Area Navigation/Control System, AP-106 Autopilot, Flight Director and the RDR-130 Weather Radar. Avionics are being returned from the repair vendor Beyond Economical Repair (BER) due to non-availability of parts. Spare units are not available in the commercial market. IMPACT: As avionics become BER due to lack of parts, spares will be depleted. Lack of avionics will ground aircraft and severely degrade CNATRA's ability to meet Pilot Training Requirements beginning in FY04. Current plans call for T-44 to fly its training mission until 2015.
There are 54 T-44A in the inventory and all 54 will receive this modification.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The T-44 Avionics Obsolescence (OSIP 05-04) non-recurring engineering occurred in FY04. Commercially available Non-Development Item (NDI) kit procurement and installations began in FY05 .

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
A-KITS					12	5.3	15	6.7	15	6.7	9	4.4										
Installation Kits N/R			3	3.6																		
Installation Equipment																						
Installation Equipment N/R																						
Engineering Change Orders																						
Data				0.3																		
Training Equipment			5	3.0	2	0.6	1	0.3	1	0.1												
Support Equipment																						
ILS																						
Other Support				0.4								0.4										
Interim Contractor Support																						
Installation Cost			3		12	0.6	15	0.8	15	0.9	9	0.6										
Total Procurement			**3**	**7.3**	**12**	**6.6**	**15**	**7.9**	**15**	**7.7**	**9**	**5.4**										

Notes:
1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: T-44A

MODIFICATION TITLE: T-44A Avionics Obsolescence (OSIP 05-04)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **CONTRACTOR FIELD TEAM MODIFICATION**

ADMINISTRATIVE LEADTIME: 1 Months

PRODUCTION LEADTIME: 1 Months

CONTRACT DATES: FY 2004: Nov-03 FY 2005: Nov-04 FY 2006: Nov-05 FY 2007: Nov-06

DELIVERY DATE: FY 2004: Dec-04 FY 2005: Dec-04 FY 2006: Dec-05 FY 2007: Dec-06

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits																						
FY 2004 ( ) kits			3																			
FY 2005 ( ) kits					12	0.6																
FY 2006 ( ) kits							15	0.8														
FY 2007 ( ) kits									15	0.9												
FY 2008 ( ) kits											9	0.6										
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL			**3**		**12**	**0.6**	**15**	**0.8**	**15**	**0.9**	**9**	**0.6**										

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In		1		1	1	3	3	3	3	3	4	4	4	3	4	4	4								
Out			1	1	1	2	4	3	2	3	5	4	3	4	4	4	3								

	FY 2010				FY 2011				To Complete	Total
	1	2	3	4	1	2	3	4		
In										
Out										

Exhibit P-3a — Individual Modification

MODIFICATION TITLE: USNTPS T-38 A-C Conversion (OSIP 15-04)

MODELS OF SYSTEMS AFFECTED: T-38A Supersonic Jet Trainer — TYPE MODIFICATION: SAFETY/RELIABILITY

DESCRIPTION/JUSTIFICATION: The T-38A aircraft was introduced into service between 1961 and 1962 and has undergone numerous changes through the years. The Navy has allocated ten aircraft at TPS and relies heavily on the Air Force for engineering and Logistics support. At the close of FY08, the Air Force will have transitioned all of their aircraft to T-38C and the Navy will need to stand up engineering and logistics units for these unique aircraft. Due to the age of the aircraft, Operations & Support costs will increase over the life of the aircraft. The modifications will reduce O&S costs, allow the Navy to continue to utilize engineering and logistics infrastructure of the Air Force, and provide for improved safety of the T-38 aircraft. The Navy plans to utilize the T-38 at USNTPS through 2020 and beyond. Future modifications will include improved wings and ejection seats, currently being developed by the US Air Force.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: All components and systems required for this program are being developed and tested by the US Air Force. No Navy unique operational testing is anticipated under this program.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
Ejection Seats																						
Wings																						
AUP Kits			3	2.2	4	4.3	3	3.4														
PMP Kits							2	1.3	10	4.8												
Installation Kits N/R																						
Installation Equipment																						
Installation Equipment N/R																						
Engineering Change Orders																						
Data																						
Training Equipment																						
Support Equipment				*																		
ILS																						
Other Support				0.2		0.4		0.3		0.1												
Interim Contractor Support																						
Installation Cost																						
Installation AUP			3	0.6	4	1.3	3	1.0														
Installation PMP							2	0.1	10	0.8												
Total Procurement				**2.9**		**6.0**		**6.1**		**5.7**												

Notes:
1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: T-38 JET TRAINER (OSIP 15-04) MODIFICATION TITLE: AUP

INSTALLATION INFORMATION: DEPOT LEVEL

METHOD OF IMPLEMENTATION: CONCURRENT with PHASE DEPOT MAINTENANCE

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 2 Months

CONTRACT DATES: FY 2004: Nov-03 FY 2005: Nov-04 FY 2006: Nov-05 FY 2007:

DELIVERY DATE: FY 2004: Dec-03 FY 2005: Dec-04 FY 2006: Dec-05 FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits																						
FY 2004 ( ) kits			3	0.6																		
FY 2005 ( ) kits					4	1.3																
FY 2006 ( ) kits							3	1.0														
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL			**3**	**0.6**	**4**	**1.3**	**3**	**1.0**														

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In			1	1	1	1	1	1	1		1	1	1												
Out			1	1	1	1	1	1	1		1	1	1												

	FY 2010				FY 2011				To Complete	Total
	1	2	3	4	1	2	3	4		
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: T-38 Jet Trainer

MODIFICATION TITLE: PMP

INSTALLATION INFORMATION: DEPOT LEVEL

METHOD OF IMPLEMENTATION: CONCURRENT with PHASE DEPOT MAINTENANCE

ADMINISTRATIVE LEADTIME: 1 Months

PRODUCTION LEADTIME: 3 Months

CONTRACT DATES: FY 2004: NA FY 2005: NA FY 2006: Nov-05 FY 2007: Nov-06

DELIVERY DATE: FY 2004: NA FY 2005: NA FY 2006: Jan-06 FY 2007: Jan-07

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits																						
FY 2004 ( ) kits																						
FY 2005 ( ) kits																						
FY 2006 (2) kits							2	0.1													**2**	**0.1**
FY 2007 (10) kits									10	0.8											**10**	**0.8**
FY 2008 (8) kits											8	0.7									**8**	**0.7**
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL							**2**	**0.1**	**10**	**0.8**	**8**	**0.7**									**20**	**1.7**

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In											2				4	4	2		4	4					
Out												2				4	4	2		4	4				

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										20
Out										20

Exhibit P-3a — Individual Modification

MODIFICATION TITLE: T-44A Oxygen Mask/Brake Replacement (OSIP 03-05)

MODELS OF SYSTEMS AFFECTED: T-44A — TYPE MODIFICATION: SAFETY

DESCRIPTION/JUSTIFICADESCRIPTION/JUSTIFICATION: T-44A Brake Assembly. The T-44A has experienced a large number of catastrophic brake failures (sticking/dragging) due to over temping of the brake housing and stator assembly. The OEM revealed insulator material was changed from asbestos to superimide. Lab results state that Superimide insulators contain a high amount of carbon material, which when combined with high humidity and salt air, will accelerate corrosion in the brake housing bore. There are 55 T-44A Inventory and all 55 will receive this modification. T-44A Oxygen Masks. Aviation Hazrep DTG 301751Z APR 02, T-44A Air Crew (AC) crew lost both left and right subpanel, and cockpit lighting. AC started to feel light headed due to altitude. AC went on oxygen but was unable to get headset on with oxygen mask on and selected speaker. The oxygen masks installed in the aircraft are the old style which do not fit properly with the headsets currently in use. (Headsets changed from Telex to David Clark which utilize large ear muffs to reduce engine/aircraft noise and enhance AC communication during normal operation.) C-12/TC-12 platforms are in the process of replacing their oxygen mask with a FAA approved COTS full face type. This mask could be readily used in the T-44A. There are 55 T-44A Inventory and all 55 will receive this modification.

T-44A Brake Assembly. The T-44A has experienced a large number of catastrophic brake failures (sticking/dragging) due to over temping of the brake housing and stator assembly. The OEM revealed insulator material was changed from asbestos to superimide. Lab results state that Superimide insulators contain a high amount of carbon material, which when combined with high humidity and salt air, will accelerate corrosion in the brake housing bore. There are 55 T-44A Inventory and all 55 will receive this modification.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The Oxygen Masks and Brakes to be installed will be a commercially available, Non-Development Item (NDI).

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
Oxygen Mask					52	0.8																
Brake					52	0.2																
Installation Kits N/R																						
Oxgen Mask					3	0.1																
Brake					3	0.1																
Installation Equipment N/R																						
Engineering Change Orders																						
Data																						
Training Equipment						*																
Support Equipment																						
ILS																						
Other Support																						
Interim Contractor Support						*																
Installation Cost					104	0.1																
Total Procurement					**110**	**1.4**																

Notes:
1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. Quantity of 6 stated in FY05 will be installed as turnkey installation costs are not necessary.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: T-44A

MODIFICATION TITLE: T-44A OXYGEN MASK/BRAKE REPLACEMENT (OSIP 03-05)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **CONTRACTOR FIELD MOD TEAM**

ADMINISTRATIVE LEADTIME: 1 Months

PRODUCTION LEADTIME: Months

CONTRACT DATES: FY 2004: FY 2005: Nov-04 FY 2006: FY 2007:

DELIVERY DATE: FY 2004: FY 2005: Dec-04 FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits																						
FY 2004 ( ) kits																						
FY 2005 ( ) kits					104	0.1																
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL					**104**	**0.1**																

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In						26	26	26	26																
Out						26	26	26	26																

	FY 2010				FY 2011				To Complete	Total
	1	2	3	4	1	2	3	4		
In										
Out										

Exhibit P-3a — Individual Modification

MODIFICATION TITLE: Trainer Legacy Aircraft, Federal Aviation Administration (FAA) Configuration, Update, and Operational Improvements (OSIP 06-05)

MODELS OF SYSTEMS AFFECTED: TC-12/T-34C/T-44A/T-2C/T-39/TH57 TYPE MODIFICATION: Safety/Reliability/Maintainability

DESCRIPTION/JUSTIFICATION: Federal Aviation Regulations require manufacturers of commercial aircraft and associated systems/subsystems to investigate discrepant conditions, failures, and potential safety problems reported by all operators. The results of these investigations with recommended corrective action are reviewed/approved by the FAA and Navy and provided to all operators as service bulletins. Each service bulletin is a complete technical directive that provides corrective change information or detailed modification instructions. Compliance with many of these FAA bulletins is mandatory to ensure safe, reliable, FAA/Navy certified aircraft and continued flight operations. The Navy must maintain configuration and integrity compatible with FAA certified commercial models by incorporation of applicable service bulletins even when they emerge during the year of execution. The incorporation of certain service bulletins also serves to preclude extensive repairs/repetitive inspections. Crew equipment requirements in accordance with FAA directives and Navy requirements will be incorporated to ensure maximum safety in case of emergency. Specific modifications budgeted in this OSIP include the incorporation of TC-12B, T-34C, T-39G/N, T-44A, T-2C and TH-57B/C FAA Bulletins and Safety of Flight Navy Directives. Specific examples of components that will require modification to conform to FAA bulletins and directives: oxygen masks, brakes, wing wiring, attenuating seats, exceedence warning, flap actuators, UHF/VHF radios, GPS, Mode S Transponder, Traffic Avoidance System, and Landing Gear

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Applicable FAA data (Supplemental Type Certificates, Service Bulletins and Airworthiness Directives) is reviewed for possible incorporation on an as required basis. All data is previously approved and verified by the FAA.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
T-2C					23	*	23	*	23	*												
TC-12B					21	*	21	*	21	*												
T-34C					309	*	309	*	309	*												
T-39G/N					23	*	23	*	23	*												
T-44A					55	*	55	*	55	*												
TH-57B/C					120	*	120	*	120	*												
Installation Kits N/R																						
Installation Equipment																						
Installation Equipment N/R																						
Engineering Change Orders																						
Data																						
Training Equipment																						
Support Equipment																						
ILS																						
Other Support																						
Interim Contractor Support																						
Installation Cost					551	*	551	0.1	551	0.1												
Total Procurement					**551**	**0.1**	**551**	**0.1**	**551**	**0.1**												

Notes:
1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: T-2C/TC-12/T-34C/T-44A/T-39/TH-57 MODIFICATION TITLE: Trainer Legacy Aircraft, Federal Aviation Administration (FAA) Update, and Correction of Deficiencies (OSIP 06-05)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **CONTRACTOR MOD TEAM**

ADMINISTRATIVE LEADTIME: Various Months PRODUCTION LEADTIME: Various Months

CONTRACT DATES: FY 2004: Various FY 2005: Various FY 2006: Various FY 2007: Various

DELIVERY DATE: FY 2004: Various FY 2005: Various FY 2006: Various FY 2007: Various

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits																						
FY 2004 ( ) kits																						
FY 2005 ( ) kits					551	*																
FY 2006 ( ) kits							551	0.1														
FY 2007 ( ) kits									551	0.1												
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL					**551**	*****	**551**	**0.1**	**551**	**0.1**												

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In						137	137	137	140	137	137	137	140	137	137	137	140								
Out						137	137	137	140	137	137	137	140	137	137	137	140								

	FY 2010				FY 2011				To Complete	Total
	1	2	3	4	1	2	3	4		
In										
Out										

Exhibit P-40, BUDGET ITEM JUSTIFICATION

DATE: **February 2005**

APPROPRIATION/BUDGET ACTIVITY
Aircraft Procurement, Navy/APN-5 Aircraft Modifications

P-1 ITEM NOMENCLATURE
C-2A(R) Series Modification

Program Element for Code B Items:

Other Related Program Elements

	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	Complete	To Total
QTY												
COST (In Millions)	**201.8**	A	**37.3**	**29.5**	**29.6**	**34.9**	**30.8**	**20.9**	**15.9**	**4.0**	**3.8**	**408.4**

This line item funds modifications to 36 C-2A(R) aircraft. The C-2A(R) Greyhound is a high wing monoplane, twin engine turbo-prop aircraft capable of operating from both a shore base and all operational USN aircraft carrier classes. The mission of the C-2A(R) is to provide rapid response Carrier Onboard Delivery (COD) of fleet essential supplies, repair parts, and personnel to sustain at sea operations of deployed battle groups. In addition, the C-2A(R) provides airdrop delivery and moblilization support for special operations forces from land bases and carriers. The overall goal of the modifications in FY 2006 is to continue initial procurement efforts for the C-2A(R) Service Life Extension Program (SLEP). The design service life of the C-2A(R) is 10,000 flight hours with 15,000 landings. The service life remaining on the aircraft is 4,000 flight hours with 4,800 landings.

(TOA, $ in Millions)

OSIP No.	Description	*Prior Years	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
24-94	C-2A SLEP	201.8	37.3	29.5	29.6	34.9	30.8	20.9	15.9	4.0	3.8	408.4
	DERF (Non-Add) *	1.7										1.7
	Total	201.8	37.3	29.5	29.6	34.9	30.8	20.9	15.9	4.0	3.8	408.4

Note: Totals may not add due to rounding.
*** For non-add Defense Emergency Response Funds (DERF) was received in FY02 in the amount of $1.7M in subhead 4A04 to procure qty (2) rewire kits.**

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: C-2A(R) Blk Upgrade/Service Life Extension Program (OSIP 24-94)

MODELS OF SYSTEMS AFFECTED: C-2A(R) Aircraft | TYPE MODIFICATION: SAFETY/SLEP

DESCRIPTION/JUSTIFICATION:
The C-2A(R) Block Upgrade/Service Life Extension Program (SLEP) extends the Navy's Carrier Onboard Delivery (COD) capability beyond current projected service life. Efforts funded in this OSIP include Structural Enhancements, Aircraft Rewiring, L-Probe Kit, Cains II, ARC-210 Radios, O-2 Mask, Outer Wing Panel Enhancements, NP-2000 (8 bladed propeller). Commencing in FY2006 this OSIP may procure Critical Components (Flight Control and Actuator Seals, Flap Brake Assembly, Ramp System, Intercom Communications System, Oil Cooler Door and Actuator, Air Turbine Starter, Generator Supervisor Panel, Engine Temperature Datum, Oxygen Regulator, Secondary O2 Bottle, Extended Range Fuel System , Engine Cowling Panels, Engine Mounts, Quick Donning 02 Mask, and Parachute, Survival and Safety Equipment (PSE)) to address emerging requirements and readiness issues.

Repeatedly, C-2A Greyhound elevator trim actuators have failed in flight and on deck, causing the aircraft to go into an immediate nose down flight profile. In some cases, the aircraft has lost half its altitude before control was regained. The community assesses this risk as potentially catastrophic. Failure of the elevator trim actuator occurs when an internal thrust bearing fails, allowing the rod end to seperate from the actuator housing, resulting in an abrupt nose down trim. Safety ECP (NI 1004-04 Trim Actuator) provides a hardware correction by opening the elevator trim actuator, changing the bushing and other component parts.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Development and operational testing (DT and OT) have been completed for the avionics systems included in this OSIP. DT and OT of the various modifications for SLEP will complete in FY 2005. Aircraft Rewire effort experienced technical difficulties during validation and verification process resulting in a 2 year slip. Procurement of kits commences in FY06.
FY04 BTR $2.5M for one additional Structures Kit.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
L-Probe Kit	36	0.3																				
CAINS II A Kit	36	2.3																				
ARC-210 Kit	27	2.2	8	0.8																		
Rewire Kit	8	8.2					5	4.1	5	4.1												
DERF Rewire Kit	2	1.7																				
Structure Kit	8	3.3	5	2.2	4	1.8	5	2.3	5	2.3												
DERF Structure Kit	1	0.4																				
O2 Mask Kit																						
Interim AFC	5	0.3																				
Interim AFC - DERF	2	0.1																				
Enhanced OWP Kit	4	10.8																				
OWP Enhancement Kit *	32	7.4	7	1.9	10	2.2	4	1.0	5	1.3												
OWP Conversion Kit	19	2.8																				
NP-2000	1	0.6	1	0.7	7	5.5	10	9.6	10	9.7												
Trim Actuator (ECP NI 1004-04)			18	0.1	18	0.1																
Installation Kits N/R		22.7		4.7		1.9																
Installation Equipment CAINS II	50	6.1																				
Installation Equipment N/R		4.2																				
Engineering Change Orders																						
Data		9.8		0.1																		
Training Equipment		4.8		1.5																		
Support Equipment		1.2		0.5																		
ILS		4.6		1.1		0.7																
Other Support		87.0		9.2		4.8		0.8		2.0												
Interim Contractor Support																						
Installation Cost	133	22.7	24	14.8	26	12.4	19	11.8	25	15.5												
Total Procurement		**203.5**		**37.3**		**29.5**		**29.6**		**34.9**												

Notes:
1. Totals may not add due to rounding
2. Enhanced OWP Kit and OWP Conversion Kit installed by fleet.
3. Defense Emergency Response Funds (DERF) funding was received in FY02 in the amount of $1.7M to procure qty (2) rewire kits.
4. 4 of the 26 installation quantities for FY 02 were funded with DERF.
5. * Active aircraft inventory has been reduced from 36 to 35 decreasing OWP Enhancement Kits from 72 to 70.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: C-2A(R)

MODIFICATION TITLE: Block Upgrade/SLEP (OSIP 24-94) - ARC-210 Radios

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Navy Field Modification Team (FMT)

ADMINISTRATIVE LEADTIME: 3 Months

PRODUCTION LEADTIME: 9 Months

CONTRACT DATES: FY 2004: Jan-04 FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: Oct-04 FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (27) kits	17	1.3	9	0.7	1	0.1																
FY 2004 (8) kits					8	0.6																
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	17	1.3	9	0.7	9	0.7																

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	17	5	4			5	4																		
Out	17		5	4			5	4																	

	FY 2010				FY 201				To	
	1	2	3	4	1	2	3	4	Complete	TOTAL
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: C-2A(R) MODIFICATION TITLE: Block Upgrade/SLEP (OSIP 24-94) - Structures

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Current w/SDLM

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 14 Months

CONTRACT DATES: FY 2004: Oct-03 FY 2005: Oct-04 FY 2006: Oct-05 FY 2007: Oct-06

DELIVERY DATE: FY 2004: Dec-04 FY 2005: Dec-05 FY 2006: Dec-06 FY 2007: Dec-07

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (8) kits	4	7.4	4	7.8																		
FY 2002 (1) kit - DERF *	1	2.1																				
FY 2004 (5) kits			1	1.9	4	7.9																
FY 2005 (4) kits							4	8.0														
FY 2006 (5) kits									5	10.2												
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	5	9.6	5	9.7	4	7.9	4	8.0	5	10.2												

* 1 structure kit procured with DERF in SLEP subhead Y5C2.

	FY2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	5		2	2	1		2	2			2	2			3	2									
Out	5			2	2	1		2	2			2	2			3	2								

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	TOTAL
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: C-2A(R)

MODIFICATION TITLE: Block Upgrade/SLEP (OSIP 24-94) - Rewire

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Current w/SDLM

ADMINISTRATIVE LEADTIME: 1 Months

PRODUCTION LEADTIME: 14 Months

CONTRACT DATES: FY 2004: FY 2005: FY 2006: Oct-05 FY 2007: Oct-06

DELIVERY DATE: FY 2004: FY 2005: FY 2006: Dec-06 FY 2007: Dec-07

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (8) kits *			2	2.5			4	2.2														
FY 2002 (2) kit - DERF **					2	1.3																
FY 2004 (0) kits																						
FY 2005 (0) kits																						
FY 2006 (5) kits									5	3.3												
FY 2007 (5) kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kit																						
To Complete () kits																						
TOTAL			2	2.5	2	1.3	4	2.2	5	3.3												

* 2 of 8 kits no longer reflect current design and cannot be used. Funding still required to install 2 of 4 kits in FY04. Cost in FY04 is due to the engineering efforts for the Validation/Verification

** 2 Rewire kits were procured with DERF in subhead 4A04.

	FY2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In			2					2			2	2			3	2									
Out				2					2			2	2			3	2								

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	TOTAL
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: C-2A(R)

MODIFICATION TITLE: Block Upgrade/SLEP (OSIP 24-94) - Outer Wing Panel Enhancement

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Navy Forced Retrofit Component

ADMINISTRATIVE LEADTIME: 1 Months

PRODUCTION LEADTIME: 4 Months

CONTRACT DATES: FY 2004: Oct-03 FY 2005: Oct-04 FY 2006: Oct-05 FY 2007: Oct-06

DELIVERY DATE: FY 2004: Feb-04 FY 2005: Feb-05 FY 2006: Feb-06 FY 2007: Feb-07

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (32) kits	32	7.8																				
FY 2004 (7) kits			7	1.8																		
FY 2005 (10) kits					10	2.5																
FY 2006 (4) kits							4	0.9														
FY 2007 (5) kits									5	1.1												
FY 2008 () kits																						
FY 2009 ( ) kits																						
FY 2010 () kits																						
FY 2011 () kits																						
To Complete () kits																						
TOTAL	32	7.8	7	1.8	10	2.5	4	0.9	5	1.1												

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	32		2	2	3		2	4	4			2	2		2	2	1								
Out	32			2	2	3		2	4	4			2	2		2	2								

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	TOTAL
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: C-2A(R)

MODIFICATION TITLE: Block Upgrade/SLEP (OSIP 24-94) - NP-2000

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Current w/SDLM/Drive in Mod

ADMINISTRATIVE LEADTIME: 1 Months

PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2004: Oct-03 FY 2005: Oct-04 FY 2006: Oct-05 FY 2007: Oct-06

DELIVERY DATE: FY 2004: Oct-04 FY 2005: Oct-05 FY 2006: Oct-06 FY 2007: Oct-07

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (1) kits			1	0.1																		
FY 2004 (1) kits					1	0.1																
FY 2005 (7) kits							7	0.6														
FY 2006 (10) kits									10	0.9												
FY 2007 (10) kits																						
FY 2008 () kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL			1	0.1	1	0.1	7	0.6	10	0.9												

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In		1					1			2	3	2		4	4	2									
Out				1				1			2	3	2		4	4	2								

	FY 2010				FY 2011				To	TOTAL
	1	2	3	4	1	2	3	4	Complete	
In										
Out										

CLASSIFICATION: UNCLASSIFIED

Exhibit P-40, BUDGET ITEM JUSTIFICATION

DATE: **February 2005**

APPROPRIATION/BUDGET ACTIVITY
Aircraft Procurement, Navy/APN-5 Aircraft Modifications

P-1 ITEM NOMENCLATURE
C-130 SERIES

Program Element for Code B Items:

Other Related Program Elements

	Prior Years	ID Code	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	To Complete	Total
QTY		A										
COST (In Millions)	**31.0**	A	**13.4**	**17.9**	**42.7**	**52.4**	**40.6**	**42.9**	**67.8**	**71.4**	**419.9**	**800.0**

This item funds modifications to C/KC-130 aircraft. The Lockheed C/KC-130 aircraft is a four engine, high-wing, all metal, long range, land based monoplane capable of all weather transport of cargo or personnel and in-flight refueling. There are currently 98 aircraft in the Navy and Marine Corps inventory (50 active and 48 reserve). The expected Service Life is as follows:

T/M/S	Service Date	Service Life	Expected Life
C-130T	10/91 - 11/95	450 mos.	2028-2032
KC-130F	3/60 - 11/62	600 mos.	2010-2012
KC-130R	9/75 - 6/78	480 mos.	2015-2018
KC-130T	4/84 - 2/96	450 mos.	2021-2033
KC-130J	9/00 - 10/13	450 mos.	2037-2048

(TOA, $ in Millions)

OSIP No.	Description	Prior Years	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	To Complete	Total
002-92	ARC-210 RADIO SYSTEM	10.7	3.1	3.5	0.6							**18.0**
009-94	NIGHT VISION LIGHTING (NVL)	11.7	0.2	1.1								**13.0**
011-03	ONS REPLACEMENT	0.2	1.1	0.1								**1.4**
020-03	AIRCRAFT SURVIVABILITY EQUIPM	8.5	0.3									**8.8**
013-04	AVIONICS MODERNIZATION PGM		7.7	10.6	39.7	48.7	38.9	37.8	45.5	42.8	379.5	**651.1**
021-04	EPCS		1.0	2.5							28.5	**32.0**
010-06	KC-130J CNS/ATM				2.4	3.7	1.7	5.2	22.3	28.6	12.0	**75.7**
Total		**31.0**	**13.4**	**17.9**	**42.7**	**52.4**	**40.6**	**42.9**	**67.8**	**71.4**	**419.9**	**800.0**
	reserve funding included in total	2.3	2.5	11.2	20.2	32.1	27.5	28.3	28.9	29.5		

Note: Totals may not add due to rounding.

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: AN/ARC-210 RADIO (OSIP 02-92)

MODELS OF SYSTEMS AFFECTED: C-130T, KC-130F/R/T | TYPE MODIFICATION: Performance Enhancement (HONA Category C)

DESCRIPTION/JUSTIFICATION: The AN/ARC-210 is a combination UHF/VHF, AM/FM jam-resistant radio that was developed to allow for Electronic Protection (EP) interoperability with the Air Force, Army and NATO. The radio provides dual UHF capability for CV based TACAIR; VHF FM for close air support and maritime channels; VHF AM for air traffic control; and EP capabilities using the Air Force developed waveforms (UHF-AM HAVEQUICK I and II), and the Army developed waveform (VHF-FM SINCGARS). The AN/ARC-210 can be controlled by either a remote control unit or via a MIL-STD-1553 multiplex data bus. The EP parameters and single channel preset information can be loaded via a CYZ-10 Data Transfer Device (DTD). The fill information can consist of word-of-day for HAVEQUICK; the KGV-10 transec variable, hopsets and frequency lock-out tables for SINCGARS. Baseline for this program is GPS (OSIP 25-92). This modification is covered by a singular ECP (C-130-99) and will be incorporated in 38 C-130 aircraft (12 active and 26 reserve). PMA209 funded the 2 validation/verification kits and installs. PMA209's ARC-210 OSIP covers 21 recurring kits. This OSIP covers the remaining 16 kits and 36 aircraft installs plus the 21 retrofit kits with installs. This modification was approved 20 Apr 93, ORD 333-06-093.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The AN/ARC-210 radio replaces the AN/ARC-159 radios in the C-130 aircraft. Validation/verification was performed during FY 1994-FY 1996. FOT&E was performed in FY97 for the KC-130F and KC-130R configurations. Recurring production installations started in April 1997. The previous program plan called for 91 total aircraft (77 to be equipped with 1556 radios and 14 aircraft to be equipped with 1794C radios that were SATCOM capable). Reduction in quantity from 91 to 84 was based on the plan to retire KC-130F aircraft as they are replaced by KC-130J aircraft. Changes in the technical requirements for SATCOM capability have caused us to alter the program and install the 1794C in all aircraft. OSIP had been changed to reflect SATCOM incorporation in all 84 aircraft (of which four were to be funded under a Common Avionics OSIP). Twenty-one aircraft previously modified will have to be retrofitted with the 1794C capability (The 21 reflects the 1556 kits acquired in FY98 and prior). Recurring installs began 1st Quarter FY04. Quantity of affected aircraft has been further reduced from 84 to 38 (12 Active and 26 Reserve) due to the increased numbers of KC-130J aircraft and the start of the AMP program (OSIP 13-04) in FY04.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
A Kit	33	2.4	4	0.5																		
CDNU Components	14	1.3	18	1.7	8	0.8																
Installation Kits N/R		1.5																				
Installation Equipment	2	0.4																				
Installation Equipment N/R																						
Engineering Change Orders																						
Data		0.2		0.2		0.1																
Training Equipment	1	*																				
Support Equipment		0.1																				
ILS		0.2																				
Other Support		2.636		0.3		0.1		*														
Interim Contractor Support																						
Installation Cost	26	2.0	4	0.4	21	2.6	6	0.6														
Total Procurement		**10.7**		**3.1**		**3.5**		**0.6**														

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **C-130T, KC-130F/R/T**

MODIFICATION TITLE: AN/ARC-210 ECCM RADIO (OSIP 02-92)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Installation will be accomplished by Commercial FMT (2 radios per aircraft).**

ADMINISTRATIVE LEADTIME: 3 Months

PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2004: Dec-03 FY 2005: Dec-04 FY 2006: FY 2007:

DELIVERY DATE: FY 2004: Jun-04 FY 2005: Jun-05 FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits	26	2.0	4	0.4	2	0.2																
FY 2004 ( ) kits					19	2.3	6	0.6														
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	**26**	**2.0**	**4**	**0.4**	**21**	**2.6**	**6**	**0.6**														

NOTE: One of the 33 kits purchased in prior years will not be installed due to the change in radio configuration. The kit will be used for the Software Integration Laboratory.
PMA209 bought and installed 1F and 1R retro kits in FY94
PMA209 is buying 21 install kits in FY04.
Totals may not add due to rounding

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	26		1	2	1		7	7	7		2	2	2												
Out	25	1		1	2	1		7	7	7		2	2	2											

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: KC-130 NIGHT VISION LIGHTING (NVL) (OSIP 09-94)

MODELS OF SYSTEMS AFFECTED: KC-130F/R/T and OPS Trainer | TYPE MODIFICATION: Performance Enhancement (HONA Category C)

DESCRIPTION/JUSTIFICATION: The KC-130 has no NVL capability to support flight operations to accomplish tactical missions at night. The lack of NVL capability creates significant interoperability problems with other Night Vision Display (NVD) capable aircraft. Incorporation of a non-developmental NVL system, that has been prepared for other USMC/USAF tactical aircraft and is compatible with KC-130 tactical missions and avionics, will alleviate this critical shortfall and allow the accomplishment of tactical missions without unnecessarily jeopardizing the crew's safety and the safety of the aircraft. This modification will allow C-130 aircraft to navigate visually at night at low altitudes (using night vision and rear vision devices), aerial refuel at night with Night Vision Goggle (NVG) capable receivers, conduct clandestine (NVD only) tactical landings and takeoffs from austere sites, conduct ground refueling (using rapid ground refueling pods) and air-landed support operations. This modification is covered by a singular ECP and will be incorporated in 16 aircraft.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The initial in-production engineering change proposal to incorporate non-developmental NVL in USMCR KC-130T aircraft was funded with NG&RE. Design/development of retrofit aircraft affected by this OSIP was originally based on the KC-130T NG&RE program. Development commenced in FY 1994 with procurement of two trial kits that were installed in FY 1995. Funding constraints delayed continuation of this program. Limited funds were required in FY97/98 to provide Maintenance Plans, pubs, and other logistics support for the aircraft already fielded. A competed contract was awarded in FY00 that allowed us to restart this program with non-recurring engineering, kit manufacture, and installation. First four recurring kits were purchased in FY00 and one val/ver install was completed. Technical difficulties during the install delayed DT and the remaining FY00 installs. Two additional val/ver installs were completed in FY01. The last val/ver install was completed in FY02 with recurring installs to begin FY03. The quantity of aircraft affected by this OSIP has been reduced from 24 to 16 (12 Active and 4 Reserve) due to the start of the Avionics Modernization Program (AMP) program (OSIP 13-04).

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
Kit	14	5.3			2	0.8																
Installation Kits N/R		1.8																				
Installation Equipment		0.3																				
Equip																						
Installation Equipment N/R																						
Engineering Change Orders																						
Data		0.1		0.2																		
Training Equipment		0.1																				
Support Equipment		*																				
ILS		0.2																				
Other Support		1.5				*																
Interim Contractor Support																						
Installation Cost	14	2.4			2	0.2																
Total Procurement		**11.7**		**0.2**		**1.1**																

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **KC-130F, KC-130R, KC-130T, Trainer** MODIFICATION TITLE: Night Vision Lighting (NVL) (OSIP 09-94)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Installation will be accomplished by Contractor Field Mod Team**

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 7 Months

CONTRACT DATES: FY 2004: FY 2005: Dec-04 FY 2006: FY 2007:

DELIVERY DATE: FY 2004: FY 2005: Jun-05 FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits	14	2.4																				
FY 2004 ( ) kits																						
FY 2005 ( ) kits					2	0.2																
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	**14**	**2.4**			**2**	**0.2**																

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	14							1	1																
Out	12	2							1	1															

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a Individual Modification

MODIFICATION TITLE: KC-130 Onboard Navigation System (ONS) Replacement. (OSIP 11-03)

MODELS OF SYSTEMS AFFECTED: KC-130F and KC-130R TYPE MODIFICATION: Obsolescence

DESCRIPTION/JUSTIFICATION: This modification affects 4 KC-130 F and 13 KC-130R aircraft that have one LTN-72 and one LTN-211 installed. The KC-130F/R aircraft require two independent means of navigation for transoceanic missions. The LTN-211 OMEGA system was eliminated in 1997. LTN-211 are being replaced with LN-100 Replacement Inertial Navigation Units (RINU).

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The LN100 is a replacement for the LTN211 and the install is accomplished at O-level. The items were procured in FY03 and will be delivered for install in FY05.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
Kit	1	0.2	10	1.1	1	0.1																
Installation Kits N/R																						
Installation Equipment																						
Installation Equipment N/R																						
Engineering Change Orders																						
Data																						
Training Equipment																						
Support Equipment																						
ILS																						
Other Support																						
Interim Contractor Support																						
Installation Cost																						
Total Procurement		**0.2**		**1.1**		**0.1**																

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: C-130 AIRCRAFT SURVIVABILITY EQUIPMENT (ASE) OSIP 020-03

MODELS OF SYSTEMS AFFECTED: C-130F/R/T | TYPE MODIFICATION: SAFETY

DESCRIPTION/JUSTIFICATION: The funding is being used to upgrade or replace the following existing defensive systems: AN/ALQ-157(V)1 Infrared Countermeasures (IRCM) system is upgraded to the AN/ALQ-157(V)2 and replaces the AN/ALE-39 Countermeasures Dispenser System (CMDS) with the AN/ALE-47 CMDS. These new systems decrease the aircraft's vulnerability by increasing the systems reliability and allow the CMDS to be programmable to defeat threats.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The AN/ALQ-157(V)2 is a fully developed reliability and maintainability upgrade to the AN/ALQ-157(V)1 that is used on multiple Navy platforms. Similarly, the AN/ALE-47 CMDS is used on multiple Navy platforms and is currently a fully developed programmable CMDS for the C-130 that integrates the AN/APR-39(V)1 and the AN/AAR-47(V)2 with the AN/ALE-47 CMDS. This integration provides the pilot with more battlefield situational awareness by displaying both systems on a single display.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
ALQ-157	13	0.8	7	0.3																		
ALE-47	20	1.7																				
Installation Kits N/R		1.2																				
Installation Equipment																						
Installation Equipment N/R																						
Engineering Change Orders																						
Data		0.1																				
Training Equipment																						
Support Equipment																						
ILS																						
Other Support		3.2		*																		
Interim Contractor Support																						
Installation Cost		1.5	20																			
Total Procurement		**8.5**		**0.3**																		

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **C-130F/R/T** MODIFICATION TITLE: AN/ALE-47 Countermeasure Dispensing System (CMDS)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Contractor Field Modification Team**

ADMINISTRATIVE LEADTIME: 5 Months PRODUCTION LEADTIME: 4 Months

CONTRACT DATES: FY 2004: Mar-04 FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: Jul-04 FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits		1.5	20																			
FY 2004 ( ) kits																						
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL		**1.5**	**20**																			

* (20) AN/AAR-47(V)2 and (20) AN/ALQ-157 are Depot level installs.

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In				3	17																				
Out					3	17																			

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: AVIONICS MODERNIZATION PROGRAM (AMP) (OSIP 13-04)

MODELS OF SYSTEMS AFFECTED: C-130T, KC-130T | TYPE MODIFICATION: Safety

DESCRIPTION/JUSTIFICATION: Objectives of the USN/USMC AMP are to lower the cost of ownership and increase survivability of the U.S. Navy/Marine Corps' Reserve C-130 fleet, while complying with Communication, Navigation, and Surveillance/Air Traffic Management (CNS/ATM) requirements. The AMP effort will upgrade the overall electrical system, modernize the cockpit by adding current Night Vision Lighting (NVL) requirements, Defensive Electronic Countermeasures (DECM), as well as the inclusion of newer, faster and more robust data processing systems. A full DECM suite will be installed into one validation/verification aircraft (KC-130T) with provisions for DECM into the other 47 aircraft. Additional improvements to the C-130's precision approach and landing capability will also be installed, as well as interfaces necessary to integrate real time information in the cockpit (RTIC). In addition to providing enhanced capabilities, AMP will lower the overall cost of ownership of the C-130 fleet by generating a reduction of cockpit crew manning, and by implementing a cost effective and open systems architecture to increase reliability, maintainability, and sustainability (RM&S) of the avionics suite. AMP objectives will be achieved through a comprehensive cockpit modernization.

The AMP affects 48 USN/USMC C/KC-130T Reserve aircraft and is currently jointly funded by PMA-207 and PMA-209 through FY05. Starting in FY06 PMA-207 will have total funding authority and will reflect one OSIP (13-04). Currently PMA-209 is providing funding considerations for these 48 aircraft to cover the CNS/ATM portion of this upgrade under OSIP 21-01, Common Avionics. PMA-207 is providing 48 kits (comprised of the boxes and wiring; 1 each per aircraft) and installs for the basic avionics portion of this upgrade. Both the CNS/ATM and avionics upgrade portions will be installed concurrently and are non-severable. The USN/USMC AMP program has a joint interest in the following USAF requirements documents: meeting the operational requirements identified in the MAF/CAF/AFSOC 902-98-I/II Operational Requirements Document (ORD) for C-130X Phase I AMP dated 26 Mar 99, AFSOC JORD 022-91-IC, Rev 1, Improved Terrain Following/Terrain Avoidance (TF/TA) Navigation System dated 16 Mar 98, AFSOC ORD 022-91-ID, SOF Enhanced Situational Awareness dated 5 Jun 98, and AFSOC ORD 007-94-1, Electronic Warfare Bus with Consolidated Display dated 13 Jul 98. The USN/USMC AMP will be an evolutionary acquisition, block approach, integration effort that will go out procure kits through FY14 with installs through FY16.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: This is a non-developmental item, following the EMD Air Force lead, but not designated as a Joint Program. USN/USMC peculiar NRE began in FY04. One Validation kit for the KC-130T and one Verification kit for the C-130T will be procured in FY05 and FY06 and installed in FY07. Recurring installs are scheduled to begin in FY 10.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
Kits for Production Systems																						
Kits for Val/Ver Systems																						
Installation Kits N/R				3.9	1	3.9	1	8.9		7.7												
Installation Equipment																						
Installation Equipment N/R					1	3.7	1	3.7														
Engineering Change Orders								0.9		1.0												
Data				*				17.3														
Training Equipment										25.0												
Support Equipment								1.0		1.0												
ILS				0.9		0.9		3.8		4.5												
Other Support				2.9		2.0		4.1		6.3												
Interim Contractor Support																						
Installation Cost									2	3.2												
Total Procurement				**7.7**		**10.6**		**39.7**		**48.7**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **C-130T, KC-130T**

MODIFICATION TITLE: AVIONICS MODERNIZATION PROGRAM (AMP) (OSIP 13-04)--Avionics Kits for Val/Ver

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **CONTRACTOR DRIVE-IN MOD**

ADMINISTRATIVE LEADTIME: 2 Months

PRODUCTION LEADTIME: 26 Months

CONTRACT DATES: FY 2004: ____ FY 2005: Nov-04 FY 2006: Nov-05 FY 2007: ____

DELIVERY DATE: FY 2004: ____ FY 2005: Jan-07 FY 2006: Jan-07 FY 2007: ____

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY () kits																						
FY 2004 () kits																						
FY 2005 (1) kits									1	1.6												
FY 2006 (1) kits									1	1.6												
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL									**2**	**3.2**												

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In															1		1								
Out																1									

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **C-130T, KC-130T**

MODIFICATION TITLE: AVIONICS MODERNIZATION PROGRAM (AMP) (OSIP 13-04)--Avionics Kits for Production

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **CONTRACTOR DRIVE-IN MOD**

ADMINISTRATIVE LEADTIME: 5 Months

PRODUCTION LEADTIME: 18 Months

CONTRACT DATES: FY 2004: _____ FY 2005: _____ FY 2006: _____ FY 2007: _____

DELIVERY DATE: FY 2004: _____ FY 2005: _____ FY 2006: _____ FY 2007: _____

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY () kits																						
FY 2004 () kits																						
FY 2005 () kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 () kits																						
FY 2009 (3) kits																						
FY 2010 (5) kits																						
FY 2011 (3) kits																						
To Complete ( ) kits																						
TOTAL																						

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In																									
Out																									

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: C-130 ELECTRONIC PROP CONTROL SYSTEM (EPCS) (OSIP 21-04)

MODELS OF SYSTEMS AFFECTED: C-130T, KC-130T | TYPE MODIFICATION: READINESS IMPROVEMENT

DESCRIPTION/JUSTIFICATION: The USMC KC-130 and Navy C-130T aircraft currently operate with a hydro-mechanical valve housing designed in the 1950's. This component controls the pitch angle of the propeller blades and it is consistently in the top three readiness degraders and is the number one reason for in flight aborts. The current valve housing is a significant readiness degrader and a high manhour unscheduled maintenance driver for the fleet. EPCS has the following OAG prioritites: #4 Navy OAG and #9 USMC OAG.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Through a FY01 COSSI initiative, OSD funded the prototype development of a modern electronic propeller control system to replace the old hydro-mechanical system. This new system is similar in design to propeller controls on several commercial turboprops in service today. A contract for this joint effort was awarded to Hamilton Sunstrand via a Other Transaction Authority (OTA) agreement. Development of the system completed in FY02. The prototype kit was delivered in early FY03. The initial install on one engine was completed in FY03 and successfully completed one-engine flight-testing. Aircraft is currently undergoing EMI testing and is scheduled to complete (4) four engine flight-testing in March 2005. This OSIP represents the first recurring installation. This OSIP affects 20 C-130T (Reserve) aircraft and 27 KC-130T (active) aircraft.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits			1	0.4	2	0.9																
Installation Kits N/R				0.1		0.3																
Installation Equipment																						
XXX Equip																						
Installation Equipment N/R																						
Engineering Change Orders																						
Data						0.1																
Training Equipment																						
Support Equipment						*																
ILS																						
Other Support				0.3		0.8																
Interim Contractor Support						0.1																
Installation Cost			1	0.2	2	0.4																
Total Procurement				**1.0**		**2.5**																

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: C-130T, KC-130T

MODIFICATION TITLE: C-130 ELECTRONIC PROP CONTROL SYSTEM (EPCS) (OSIP 021-04)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Contractor Field Modification Team**

ADMINISTRATIVE LEADTIME: 4 Months

PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2004: Feb-04 FY 2005: Apr-05 FY 2006: FY 2007:

DELIVERY DATE: FY 2004: Jul-04 FY 2005: Jul-05 FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits																						
FY 2004 ( ) kits			1	0.2																		
FY 2005 (2) kits					2	0.4																
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL			**1**	**0.2**	**2**	**0.4**																

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In					1			1	1																
Out						1			1	1															

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: CNS/ATM UPGRADE (OSIP 010-06)

MODELS OF SYSTEMS AFFECTED: KC-130J | TYPE MODIFICATION: Safety

DESCRIPTION/JUSTIFICATION: Objective of the Communication Navigation Surveillance/Air Traffic Management (CNS/ATM) OSIP is to preserve utilization of current KC-130J capabilities world-wide by meeting International Civil Aviation Organization (ICAO) Air Traffic Management mandates through a series of commercial procurements and post-production retrofit installations. ICAO mandates elementary Mode-S, enhanced Mode-S and Required Navigation Performance/Area Navigation (RNP/RNAV) capabilities in the European Flight Information Region (FIR) starting in FY06, followed by the requirement of enhanced Mode-S, which is the Automatic Dependent Surveillance-Broadcast (ADS-B) comm-link, and will be required in FY07. The VHF Digital Link-3 (VDL-3) is mandated in the National Air Space FIR by FY09. This OSIP will upgrade the KC-130J to elementary Mode-S, enhanced Mode-S, VDL-3, and RNP/RNAV through four separate initiatives. The first and least intensive, elementary Mode-S, and the second, enhanced Mode-S, begin in FY06. The third, VDL-3, begins in FY10. The fourth initiative, the integration of the RNP/RNAV solution, which is software intensive and highly complicated, will begin in FY11. This OSIP is required in order to avoid airspace utilization limitations, ranging from usage restrictions to total airspace exclusion, as well as ensuring continuous KC-130J transport of personnel, material and aerial refueling services within and through these FIRS. Major DoD logistic hubs supporting Operation Enduring Freedom/Operation Iraqi Freedom (OEF/OIF) are located in the European FIR. This OSIP affects all 51 KC-130J aircraft.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The AN/ALQ-157(V)2 is a fully developed reliability and maintainability upgrade to the AN/ALQ-157(V)1 that is used on multiple Navy platforms. Similarly, the AN/ALE-47 CMDS is used on multiple Navy platforms and is currently a fully developed programmable CMDS for the C-130 that integrates the AN/APR-39(V)1 and the AN/AAR-47(V)2 with the AN/ALE-47 CMDS. This integration provides the pilot with more battlefield situational awareness by displacing both systems on a single display.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: All kits are Commercial Off The Shelf (COTS) equipment.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
Installation Kits N/R																						
Installation Equipment																						
Mode-S																						
VDL-3 and RNP/RNAV																						
Installation Equipment N/R								1.4	1	2.1												
Engineering Change Orders																						
Data										0.1												
Training Equipment																						
Support Equipment																						
ILS								0.4		0.6												
Other Support								0.6		0.9												
Interim Contractor Support																						
Installation Cost																						
Total Procurement								**2.4**		**3.7**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **KC-130J** MODIFICATION TITLE: CNS/ATM UPGRADE - MODE-S

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **CONTRACTOR DRIVE-IN MOD**

ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2004: FY 2005: FY 2006: FY 2007: Nov-07

DELIVERY DATE: FY 2004: FY 2005: FY 2006: FY 2007: Nov-08

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY () kits																						
FY 2004 () kits																						
FY 2005 () kits																						
FY 2006 () kits																						
FY 2007 (1) kits																						
FY 2008 ( ) kits																						
FY 2009 (15) kits																						
FY 2010 (24) kits																						
FY 2011 (11) kits																						
To Complete () kits																						
TOTAL																						

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In																									
Out																									

	FY 2010				FY 2011				To Complete	Total
	1	2	3	4	1	2	3	4		
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **KC-130J** MODIFICATION TITLE: CNS/ATM UPGRADE - VDL-3 and RNP/RNAV

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **CONTRACTOR DRIVE-IN MOD**

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 9 Months

CONTRACT DATES: FY 2004: FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY () kits																						
FY 2004 () kits																						
FY 2005 () kits																						
FY 2006 () kits																						
FY 2007 () kits																						*
FY 2008 ( ) kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
To Complete (50) kits																						
TOTAL																						

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1.0	2	3	4	1	2	3	4	1	2	3	4
In																									
Out																									

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-40, BUDGET ITEM JUSTIFICATION						DATE: **February 2005**						
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy/APN-5 Aircraft Modifications**						P-1 ITEM NOMENCLATURE **FEWSG (Fleet Electronic Warfare Support Group) Series Modifications**						
Program Element for Code B Items: 0204575N						Other Related Program Elements						
	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
QTY		A										
COST (In Millions)	58.4	A	0.9	0.6	0.6	0.6	0.6	0.7	0.7	0.7	2.7	66.6

This line item funds modifications to several aircraft and equipment. The overall goal of the budgeted modifications is to accurately simulate the known and postulated electronic warfare characteristics and tactics of different threats for fleet training. OSIP 119-83 FEWSG equipment, AN/DLQ-3, AN/AST-6(V), AN/ULQ-21 and AN/ALQ-167 are installed and/or carried aboard the F/A-18, EA-6B, F-14, and on the Gulfstream G-1.

(TOA, $ in Millions)

OSIP No.	Description	Prior Years	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
119-83	AN/DLQ-3, AN/AST-6(V), ULQ-21, ALQ-167	58.4	0.9	0.6	0.6	0.6	0.6	0.7	0.7	0.7	2.7	66.6
Total		**58.4**	**0.9**	**0.6**	**0.6**	**0.6**	**0.6**	**0.7**	**0.7**	**0.7**	**2.7**	**66.6**

Note: Totals may not add due to rounding.

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: FEWSG (OSIP 119-83), AN/AST-6(V), AN/DLQ-3, AN/ULQ-21 & AN/ALQ-167

MODELS OF SYSTEMS AFFECTED: N/A

TYPE MODIFICATION: RELIABILITY, MAINTAINABILITY, AND CAPABILITY UPGRADES

DESCRIPTION/JUSTIFICATION: The AN/ALQ-167 pods electronically simulate threat airborne radar jamming systems. The AN/ALQ-167 pods internal components are also installed internally in aircraft. When these components are utilized in this type of installation, they are nomenclatured AN/DLQ-3 and AN/ULQ-21. The AN/AST-6(V) pod electronically simulates several types of threat anti-ship missile seeker systems. These podded devices were first introduced into the fleet in 1980 and proved exceptionally useful in readiness exercises. This program provides for the procurement and initial support of additional quantities of these pods for use by logistic support squadrons and other operational fleet units. No aircraft modifications are required to use these pods.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The objective for the AN/ALQ-167 is 186 pods, there are currently 146. There are 25 AN/AST-6(V) production assets. The objective is to achieve a total of 50 pods. The AN/ALQ-167 avionics are being upgraded. When these upgraded avionics are internally installed in aircraft, they are nomenclatured as AN/ULQ-21 systems.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$			Qty	$	Qty	$
RDT&E		15.9																				
PROCUREMENT																						
Installation Kits																						
Installation Kits N/R																						
Installation Equipment	1,010	51.1	2	0.1	2	0.1	2	0.1	2	0.1												
Installation Equipment N/R		0.5		0.1		0.1		0.1		0.1												
Engineering Change Orders																						
Data		0.1		*		*		*		*												
Training Equipment		0.2		*		*		*		*												
Support Equipment		5.2																				
ILS		1.018		*		*		*		0.1												
Other Support		0.4		0.7		0.4		0.4		0.4												
Interim Contractor Support																						
Installation Cost																						
Total Procurement		**58.4**		**0.9**		**0.6**		**0.6**		**0.6**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

CLASSIFICATION: UNCLASSIFIED

Exhibit P-40, BUDGET ITEM JUSTIFICATION

DATE: **February 2005**

APPROPRIATION/BUDGET ACTIVITY
Aircraft Procurement, Navy/APN-5 Aircraft Modifications

P-1 ITEM NOMENCLATURE

Program Element for Code B Items:

Other Related Program Elements
Cargo/Transport Aircraft Series Modifications

	Prior Years	ID Code	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	To Complete	Total
QTY		A										
COST (In Millions)	40.5	A	11.4	8.3	19.9	30.2	20.7	17.9	18.3	18.6		185.8

This line item funds modifications to the following cargo and transport aircraft: C-9B/DC-9, C-20D/G, RC-12F/M, UC-12B/F/M, NC-12B, TC-12B, EC/RC-26D, C-40A, UC-35C/D, C-37. The C-9B/DC-9 Skytrain II, CT-39G (Sabreliner), C-20D/G (Gulfstream IV), C-40A (Boeing) , UC-35C/D (Cessna Citation) and the C-37 (Gulfstream G-V) are all twin jet commercial transport aircraft. The C-9B/DC-9 is capable of carrying up to 32,000 pounds of both cargo and personnel for over 3,300 nautical miles at a maximum speed of 430+ knots. The C-20D/G are capable of high speed transport of 13 personnel over 4,100 nautical miles at 437 knots. The RC-12F/M, NC-12B, and UC-12B/F/M are twin turbo-prop commercial transport aircraft (King Air) capable of a variety of gerneral purpose transport and specialized missions. They can carry 8 people up to 1,300 nautical miles at 200 knots. The C-40A will provide time-critical logistics support for the fleet CINCs and will accomodate 121 passangers, or 8 pallets of cargo, or a combination configuration consistion of 3 pallets and 70 passangers. The C-40A has a range of 3,400 nautical miles with 5,000 lbs of cargo. The UC-35C/D will provide transport for high priority passanger/ cargo missions with time, place or mission sensitive requirements. The UC-35C/D will carry 6 passangers or 1,200 lbs of cargo and has a range of 1,400 nautical miles. The C-26D and EC/RC-26D are twin turbo-prop aircraft (Fairchild Metro) capable of passanger/ cargo transport and range control missions. The C-26D can carry 19 passangers up to 1,300 nautical miles at 234 knots. The C-37 provides Executive transport fo SECNAV, CNO, CMC, and Fleet Commanders. The overall goal of the modifications budgeted in FY 2006 and out is to procure/ install Flight Safety Upgrades to the C-12 aircraft and to continue CNS/ATM upgrades to the C-40, C-37, UC-35, C-26, C-20 and C-12 aircraft. The specific modifications budgeted and programmed are as follows:

(TOA, $ in Millions)

OSIP No.	Description	Prior Years	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	To Complete	Total
71-86	FAA Configuration Updates	19.7	0.5									**20.2**
14-98	C-12 Flight Safety Upgrades	20.8	4.8	5.4	4.9							**35.9**
12-04	CNS/ATM		6.0	2.9	15.0	30.2	20.7	17.9	18.3	18.6		**129.7**
Total		**40.5**	**11.4**	**8.3**	**19.9**	**30.2**	**20.7**	**17.9**	**18.3**	**18.6**		**185.8**
Reserve funding included in total			4.2	0.9	15.1	30.2	20.7	17.9	18.3	18.6		**126.0**

Note: Totals may not add due to rounding.

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: Federal Aviation Administration (FAA) Configuration Update (OSIP 71-86)

MODELS OF SYSTEMS AFFECTED: C-9B/DC-9/C-20D/C-20G/UC-12B/UC-12F/UC-12M/RC-12F/RC-12M/TC-12B/NC-12B/CT39G/C-26D/UC-35/C-40A TYPE MODIFICATION: Safety/Maintainability/Reliability

DESCRIPTION/JUSTIFICATION: Federal Aviation Regulations require manufacturers of commercial aircraft and associated systems/subsystems to investigate discrepant conditions, failures, and potential safety problems reported by all operators. The results of these investigations with recommended corrective action are reviewed/approved by the FAA and Navy and provided to all operators as service bulletins. Each service bulletin is a complete technical directive that provides corrective change information or detailed modification instructions. To ensure safe, reliable, FAA/Navy certified aircraft and to provide a program that will assure continued life extension at minimum cost, the Navy must maintain configuration and integrity compatible with FAA certified commercial models by incorporation of applicable service bulletins. The incorporation of certain service bulletins also serves to preclude extensive repairs/repetitive inspections. Crew equipment requirements in accordance with FAA directives and Navy requirements will be incorporated to ensure maximum safety in case of emergency. Specific modifications budgeted in this OSIP include the incorporation of C-9B/DC-9, C-20, C-26 and C-12 FAA Bulletins and Directives.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Service Bulletins are reviewed for possible incorporation on an as required basis. Prototype verification has been previously accomplished and approved by the FAA.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
C-12	74	0.9	20	0.2																		
C-9 ENGINES	13	0.2																				
C-20	273	0.7	25	0.2																		
C-9	282	5.2																				
C-26	7	0.3	4	0.1																		
C-9 HUSH KITS	1	1.2																				
UC-35																						
C-40																						
Installation Kits N/R		2.7		*																		
Installation Equipment																						
Installation Equipment N/R																						
Engineering Change Orders																						
Data		0.3																				
Training Equipment		0.2																				
Support Equipment																						
ILS		*																				
Other Support		0.5																				
Interim Contractor Support		0.2																				
Installation Cost	650	7.2	49	0.1																		
Total Procurement		**19.7**		**0.5**																		

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: C-9B/DC-9/C-20D/C-20G/UC-12B/UC-12F/UC-12M/RC-12F/RC-12M/TC-12B/NC-12B/CT-39G/C-26D/UC-35/C-40A

MODIFICATION TITLE: Federal Aviation Administration (FAA) Configuration Update (OSIP 71-86)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Contractor Depot**

ADMINISTRATIVE LEADTIME: Various Months

PRODUCTION LEADTIME: Various Months

CONTRACT DATES: FY 2004: Various FY 2005: Various FY 2006: Various FY 2007: Various

DELIVERY DATE: FY 2004: Various FY 2005: Various FY 2006: Various FY 2007: Various

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits	650	7.2																				
FY 2004 ( ) kits			49	0.1																		
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	**650**	**7.2**	**49**	**0.1**																		

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	650			20	29																				
Out	650				20	29																			

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: Flight Safety Upgrade (OSIP 14-98)

MODELS OF SYSTEMS AFFECTED: UC-12B/F/M, TC-12B, RC-12F/M | TYPE MODIFICATION: Safety

DESCRIPTION/JUSTIFICATION: The crash of a U.S. Air Force CT-43 while flying a non-directional radio beacon (NDB) approach resulted in a Department of Defense initiative to upgrade flight safety systems as soon as possible in all passenger carrying aircraft. This OSIP was established to ensure compliance with this initiative on 81 C-12 model aircraft and identified flight safety systems required to provide capability upgrade to directed requirements. Recent initiatiaves to divest CONUS UC-12B aircraft have reduced the number of C-12 aircraft to receive Flight Safety Upgrades (FSU) from 81 aircraft to 45 aircraft. However, 16 UC-12B have already received (FSU) under this OSIP and will be reflected in the numbers below. Under this OSIP C-12 aircraft require installation of Enhance Ground Proximity Warning Systems and Traffic collision avoidance systems (TCAS II). Additionally,UC-12 aircraft not subject to divestiture require upgrades to provide a more reliable radar altimeter. Total number of aircraft reflected under this OSIP is 61 aircraft.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Systems are commercial off the shelf (COTS) and do not require development. System prototypes are required in 3 aircraft.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
FSU Kit	29	9.2	11	3.6	11	3.6	10	3.3														
Installation Kits N/R		6.4																				
Installation Equipment																						
Installation Equipment N/R																						
Engineering Change Orders				0.3		0.3																
Data		0.2		0.2		0.1																
Training Equipment		0.9		0.2		0.2		*														
Support Equipment		0.7																				
ILS		1.1		0.2		0.1																
Other Support				0.3		0.3		0.1														
Interim Contractor Support																						
Installation Cost	29	2.3			11	0.8	21	1.5														
Total Procurement		**20.8**		**4.8**		**5.4**		**4.9**														

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **UC-12B/F/M, TC-12B, RC-12F/M**

MODIFICATION TITLE: Flight Safety Upgrade (OSIP 14-98)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Contractor Installed Kits**

ADMINISTRATIVE LEADTIME: 1 Months

PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2004: Nov-03 FY 2005: Nov-04 FY 2006: Nov-05 FY 2007:

DELIVERY DATE: FY 2004: Dec-04 FY 2005: Dec-05 FY 2006: Dec-06 FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits	29	2.3																				
FY 2004 ( ) kits					11	0.8																
FY 2005 ( ) kits							11	0.8														
FY 2006 ( ) kits							10	0.7														
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	**29**	**2.3**			**11**	**0.8**	**21**	**1.5**														

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	29					3	3	3	2	5	5	5	6												
Out	29					3	3	3	2	5	5	5	6												

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: CNS-ATM (OSIP 12-04)

MODELS OF SYSTEMS AFFECTED: C-12, C-20, C-26, C-37, C-40/C-9, UC-35 | TYPE MODIFICATION: Safety

DESCRIPTION/JUSTIFICATION: Communication-Navigation-Surveillance-Air-Traffic-Management (CNS-ATM) upgrades are required to satisfy International Civil Aviation Organization (ICAO) standards and Federal Aviation Administration (FAA) First and Second Phase mandates. FAA Phase 1 (1998 - 2002) delivers a subset of CNS capabilities. Implemented were: Ground Proximity Warning System, RNP - 10 NM Accuracy, Protected ILS (P-ILS) – FM Immunity, 8.33KHz spaced VHF channels and Over-water Reduced Vertical Separation Minima. C-12 non-trainer aircraft (16) will receive P-ILS modification under this OSIP. Because the C-12 European aircraft were the only aircraft modified with the 8.33 KHz radios under OSIP 71-86, the remaining CONUS aircraft (16) are to receive this modification under this OSIP, as well as one C-20A. This OSIP installs FAA Phase 2 (2003 - 2009), deploying the next generation of CNS equipment: Data link will provide Controller Pilot Data Link Communications (CPDLC) and Tower Data Link Services (TDLS) for the exchange of data communication messages between the controller personnel and pilots with an automated data link communications capability that reduces workload and reduces voice frequency congestion through digital radios. These digital radios will comply with international standards defined by ICAO for CPDLC in an Aeronautical Telecommunications Network (ATN) environment. 60 aircraft will receive this modification. Radio Navigation Performance (RNP) accuracy improvement to RNP-5NM is a method which permits aircraft navigation along any desired flight path within the coverage of the associated navigation aids or within the limits of the capability of self-contained aids, or a combination of these methods. Advances in Navigation RNP functionality will enable improvements in airspace design (structure, sectorization, associated route network, applicable route spacing, separation minima and responsibilities, etc.), and will allow for a high degree of flexibility for aircraft operations and for the navigational equipment used. Satellite-based (GPS) navigation systems will be augmented in local areas for non-precision and precision approaches. 60 aircraft will receive this modification. The Area Navigation (RNAV) kit will provide navigation system improvement to communicate within local areas for precision and non-precision approaches. 36 aircraft will receive this modification. The C-20D and C-26 aircraft require an avionics upgrade prior to receiving the CNS-ATM modification. This avionics upgrade consists of a digital automatic flight control system, which provides flight director, autopilot, pitch trim, Mach trim and TCAS/Mode S upgrades. The system operates in conjunction with the electronic display system that consists of primary flight displays, navigation displays, engine instrument displays, and crew alerting system displays. The flight control system will enable integration of all current and future CNS/ATM requirements into a single system with expandable architecture. One C-20D aircraft and 4 C-26 aircraft will receive this architecture upgrades to support FAA Phase 2 upgrade. CNS fulfills multiple FAA/ICAO mandates across multiple Cargo/Transport T/M/S aircraft. These aircraft operate worldwide and constantly communicate with and operate within civilian controlled airspace, both nationally and internationally. Failure to comply will ground aircraft and halt missions. There are 61 aircraft in 6 T/M/S's in the cargo/transport inventory. Aircraft receiving mods from this OSIP are 24 C-12, 8 C-20, 4 C-26, 10 UC-35, 3 C-37 and 12 C-40/C-9.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: All kits are Commercial Off-the-Shelf equipment. Non-recurring engineering is required for data link, RNP and LAAS and the Avionics Upgrade in the C-26; thus NRE is broken out separately for each kit type.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
Data Link Kit							5	2.9	18	4.9												
RNP Upgrade Kit					2	0.3			27	5.2												
RNAV Kit																						
P-ILS Kit			16	0.2																		
Avionics Upgrade Kit			1	1.9	1	0.4	3	1.7														
8.33 KHZ Radio Kit			16	0.5																		
HF Radio Upgrade (C-20A) Kit			1	0.2																		
Installation Kits N/R				2.3		0.8		7.2		9.1												
Installation Equipment																						
Data Link									10	2.8												
RNP Upgrade									3	0.5												
RNAV																						
Installation Equipment N/R																						
Engineering Change Orders																						
Data						0.4		*		*												
Training Equipment																						
Support Equipment																						
ILS						0.1		0.1		0.3												
Other Support				0.7		0.1		0.3		0.6												
Interim Contractor Support																						
Installation Cost			34	0.2	3	0.7	8	2.8	40	6.8												
Total Procurement				**6.0**		**2.9**		**15.0**		**30.2**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **C-12**

MODIFICATION TITLE: CNS-ATM (OSIP 12-04)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **DEPOT CONTRACTOR**

ADMINISTRATIVE LEADTIME: 3 Months

PRODUCTION LEADTIME: 1 Months

CONTRACT DATES: FY 2004: Jan-04 FY 2005: Jan-05 FY 2006: Jan-06 FY 2007: Jan-07

DELIVERY DATE: FY 2004: Feb-04 FY 2005: Feb-05 FY 2006: Feb-06 FY 2007: Feb-07

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits																						
FY 2004 ( ) kits			32	0.1																		
FY 2005 ( ) kits					2	0.3																
FY 2006 ( ) kits							2	0.6														
FY 2007 ( ) kits									20	1.8												
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL			**32**	**0.1**	**2**	**0.3**	**2**	**0.6**	**20**	**1.8**												

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In			11	11	10		2				2			5	8	7									
Out			10	11	11		1	1				2			5	8	7								

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **C-20**

MODIFICATION TITLE: CNS-ATM (OSIP 12-04)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **CONTRACTOR DRIVE IN MODIFICATION TEAM**

ADMINISTRATIVE LEADTIME: 3 Months

PRODUCTION LEADTIME: 1 Months

CONTRACT DATES: FY 2004: Jan-04 FY 2005: FY 2006: FY 2007: Jan-07

DELIVERY DATE: FY 2004: Feb-04 FY 2005: FY 2006: FY 2007: Feb-07

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits																						
FY 2004 ( ) kits			2	0.1																		
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits									7	1.4												
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL			**2**	**0.1**					**7**	**1.4**												

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In			2												3	2	2								
Out					2										3	2	2								

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **C-26** MODIFICATION TITLE: CNS-ATM (OSIP 12-04)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **DEPOT CONTRACTOR**

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 1 Months

CONTRACT DATES: FY 2004: FY 2005: Jan-05 FY 2006: Jan-06 FY 2007: Jan-07

DELIVERY DATE: FY 2004: FY 2005: Feb-05 FY 2006: Feb-06 FY 2007: Feb-07

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits																						
FY 2004 ( ) kits																						
FY 2005 ( ) kits					1	0.4																
FY 2006 ( ) kits							3	1.7														
FY 2007 ( ) kits									3	0.2												
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL					**1**	**0.4**	**3**	**1.7**	**3**	**0.2**												

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In								1			2	1			3										
Out								1				2	1			3									

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **C-37**

MODIFICATION TITLE: CNS-ATM (OSIP 12-04)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **CONTRACTOR DRIVE IN MODIFICATION TEAM**

ADMINISTRATIVE LEADTIME: 3 Months

PRODUCTION LEADTIME: 1 Months

CONTRACT DATES: FY 2004: _____ FY 2005: _____ FY 2006: _____ FY 2007: Jan-07

DELIVERY DATE: FY 2004: _____ FY 2005: _____ FY 2006: _____ FY 2007: Feb-07

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits																						
FY 2004 ( ) kits																						
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits									6	1.6												
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL									**6**	**1.6**												

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In															3	3									
Out																3	3								

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **C-40A/C-9** MODIFICATION TITLE: CNS-ATM (OSIP 12-04)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **CONTRACTOR DRIVE IN MODIFICATION TEAM**

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 1 Months

CONTRACT DATES: FY 2004: FY 2005: FY 2006: FY 2007: Jan-07

DELIVERY DATE: FY 2004: FY 2005: FY 2006: FY 2007: Feb-07

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits																						
FY 2004 ( ) kits																						
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL																						

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In																									
Out																									

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **UC-35**

MODIFICATION TITLE: CNS-ATM (OSIP 12-04)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **DEPOT CONTRACTOR AND CONTRACTOR FIELD MOD TEAM**

ADMINISTRATIVE LEADTIME: 3 Months

PRODUCTION LEADTIME: 1 Months

CONTRACT DATES: FY 2004: FY 2005: FY 2006: Jan-06 FY 2007: Jan-07

DELIVERY DATE: FY 2004: FY 2005: FY 2006: Feb-06 FY 2007: Feb-07

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits																						
FY 2004 ( ) kits																						
FY 2005 ( ) kits																						
FY 2006 ( ) kits							3	0.5														
FY 2007 ( ) kits									4	1.8												
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL							**3**	**0.5**	**4**	**1.8**												

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In												3			2	2									
Out													3			2	2									

	FY 2010				FY 2011				To Complete	Total
	1	2	3	4	1	2	3	4		
In										
Out										

CLASSIFICATION: UNCLASSIFIED

Exhibit P-40, BUDGET ITEM JUSTIFICATION

DATE: **February 2005**

APPROPRIATION/BUDGET ACTIVITY
Aircraft Procurement, Navy/APN-5 Aircraft Modifications

P-1 ITEM NOMENCLATURE
E-6 Series Modifications

Program Element for Code B Items:

Other Related Program Elements

	Prior Years	ID Code	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	To Complete	Total
QTY		A										
COST (In Millions)	**835.9**	A	**48.0**	**19.6**	**11.2**	**17.4**	**59.9**	**69.4**	**70.8**	**72.2**	**133.7**	**1,338.1**

This line item funds modifications to E-6 "Take Charge and Move Out", TACAMO aircraft. All sixteen (16) aircraft in the TACAMO fleet will receive each modification. The E-6 TACAMO is a manned airborne communications relay platform designed to provide a survivable, reliable, endurable airborne command and control communications link between the President, Secretary of Defense and U.S. strategic and non-strategic forces. The Navy and Air Force were directed to take actions necessary to incorporate Airborne Command Post (ABNCP) (OSIP 32-93) functions into the E-6A, which were completed in Nov 03. The last install to complete the additional requirements of the ADWS Program under OSIP 32-93, will commence in FY05. The Multifunction Display System (MDS) (OSIP 27-99) was approved as the solution to maintaining worldwide deployability due to changing Global Air Traffic Management/Global Air Navigation System standards. The Modified Miniature Receiver Terminal (MMRT) (OSIP 10-01) began installs in FY02 to enhance command and control of the strategic forces. Mission Support (OSIP 07-02) corrects Follow On Test & Evaluation (FOT&E - Sep 98) deficiencies by upgrading the Aircraft Frequency Auto Parallel Unit (FRAPU) to allow proper power transfer from/to ground/aircraft power, updating the design of and fabricating new rewind machines and purchasing "off-the-shelf" power carts to provide adequate aircraft power for full mission checkout. Correction of Safety Deficiencies (OSIP 08-02) started in FY02 and includes a smoke detection system, replacement of fuel tank Kapton wiring and replacement of an uncertified Cartridge Activated Device (CAD) (explosive) for severing the Long Trailing Wire Antenna in emergencies. Technology Insertion (OSIP 03-04) addresses supportability, new technologies, systems updates and interoperability issues in the areas of: Mission Computer Set (MCS) hardware obsolescence, Mission Avionics Processing System (MAPS) obsolescence and Flight Management Computer System obsolescence. Service Life Extension Program (SLEP) (OSIP 03-07) is designed to extend the service life of the E-6 A/C to 2040+. Block I, Mission Deficiencies (OSIP XX-08), replaces the Digital Airborne Intercommunication Switching Set (DAISS) and installs an Open System Architecture that will allow low cost modifications for emerging requirements. It also replaces the Mission Computer Set, adds automatic retransmit of voice messages and flat panel displays in the battle staff area, replaces the UHF C3 modem and increases ground power and cooling capabilities for austere operations. The E-6B Mod (ADWS), Multifunction Display System and Modified Miniature Receive Terminal programs have been restructured to increase A/C availability, reduce fleet A/C configurations, reduce logistics costs, increase operational flexibility, maximize production effort and allow trainer modifications to be done concurrently.

(TOA, $ in Millions)

OSIP No.	Description	Prior Years	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	To Complete	Total
32-93	E-6B Mod	**698.9**	**7.3**	**4.8**								**711.0**
27-99	Multifunction Display System	**115.6**	**30.7**	**10.6**								**156.8**
10-01	E-6B Modified Mini Rcv Terminal	**11.2**	**3.0**									**14.2**
07-02	E-6 Mission Support	**6.9**	**2.8**		**3.4**	**3.4**	**4.4**	**1.9**				**22.8**
08-02	Safety Deficiencies	**3.3**	**2.1**	**1.1**	**1.6**	**1.1**	**1.0**	**1.5**				**11.7**
03-04	Tech Insertion		**2.2**	**3.1**	**6.2**	**6.2**	**4.2**	**2.7**	**6.7**	**23.2**	**14.1**	**68.6**
03-07	SLEP					**6.7**	**14.1**	**12.8**	**11.2**	**12.2**	**38.2**	**95.1**
XX-08	Mission Deficiencies (Block I)						**36.2**	**50.5**	**52.9**	**36.8**	**81.5**	**257.8**
Total	E-6A Series	**835.9**	**48.0**	**19.6**	**11.2**	**17.4**	**59.9**	**69.4**	**70.8**	**72.2**	**133.7**	**1,338.1**

Note: Totals may not add due to rounding.

Exhibit P-3a — Individual Modification

MODIFICATION TITLE: E-6B Modifications (OSIP 32-93)

MODELS OF SYSTEMS AFFECTED: E-6A/E-6B — TYPE MODIFICATION: Capability

DESCRIPTION/JUSTIFICATION: Mission Needs Statement: E-6A TACAMO/Airborne Command Post (ABNCP) Consolidation Program, MO-40-88-93, dated 22 Sep 93, substantiates the transfer of avionics equipment from the Air Force EC-135 ABNCP platform to all 16 Navy E-6A TACAMO aircraft. This program consolidates Joint Chiefs of Staff (JCS) Strategic Command and Control tasking into one survivable airborne strategic platform and achieves significant operations and maintenance savings of at least $50M annually. The addition of the ABNCP mission to the TACAMO aircraft results in one platform having the ability to relay Emergency Action Messages from the President and Secretary of Defense to U. S. Strategic Forces and for COMSTRAT to directly execute command and control of those forces. Operational Requirements Document (ORD) 389-88-98, revised 14 Aug 98, supports modifications for the High Power Transmit Set, original ABNCP avionics systems and MILSTAR capabilities. These are encompassed in ECP CTAS-100R3. ORD 389-88-98, revised 14 Aug 98, incorporates newly identified requirements, including approved ECP RCS-100R1 for Voice Satellite (VOSAT) Communications and Engineering Change Proposals (ECPs) for Cryptographic (CRYPTO) equipment upgrades, Ultra High Frequency (UHF) Demand Assigned Multiple Access (DAMA) installation, Automated Data Processing Capability (ADP) and Weight Savings. VOSAT capability is a voice recognition system that is required by COMSTRAT for uncompromised communications. CRYPTO upgrade is required by COMSTRAT to ensure ABNCP receipt and distribution of encrypted messages in accordance with relay timing parameters. UHF DAMA is required for communications across the spectrum of Command and Control responsibilities. ADP capability is required by COMSTRAT for efficient operations by the embarked Battle Staff and for the capability to receive and generate encrypted and classified correspondence. The weight savings is required to offset the effects of other modifications on E-6 zero gross fuel weight parameters. The ADP, UHF DAMA and Weight Savings requirements are combined into the ADWS program and will apply to all 16 E-6s in the active fleet inventory. The ADWS program has been restructured to increase A/C availability, reduce fleet A/C configurations, reduce logistics costs, increase operational flexibility, maximize production effort and allow trainer modifications to be done concurrently. This modification program is not applicable to any aircraft in either the National Guard or the Reserves. TACLANE Crypto will also be installed through FY05.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Milestone III decision on ABNCP modifications granted January 1995. Milestone III decision for Avionics Upgrade and HPTS granted December 1995. FOT&E completed June 1998. Initial Operating Capability (IOC) date of 1 October 1998 was met. September message from COMSTRAT delineated additional requirements and associated program cost growth which resulted in E-6 program restructure with ABNCP Full Operating Capability shifting from January 2001 to February 2003. All ABNCP aircraft modifications have been completed. IOC for VOSAT modification was met 1 October 1998 and IOC for CRYPTO was met 1 July 2000. TACLANE Crypto will be completed by end of FY05. A contract was awarded for the ADWS program September 2000 with installation planned to be completed by end of FY05. E-6B Modification ADWS Program was extended to increase A/C availability, reduce fleet A/C configurations, reduce logistics costs, increase operational flexibility, maximize production effort and allow trainer modifications to be done concurrently.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E		107.3																				
PROCUREMENT																						
Installation Kits																						
HPTS Kit	16	19.7																				
ABNCP Kit	15	55.9																				
VOSAT Kit	16	0.3																				
CRYPTO Kit	16	1.0																				
SIL Kit	1	0.4																				
LAB Kit	1	0.1																				
ADWS Kit	16	10.6																				
ASCET	1	0.1																				
Installation Kits N/R		49.5																				
Installation Equipment																						
HPTS/CFA Equip	18	139.3																				
ABNCP Equip	15	31.1																				
VOSAT Equip	16	2.2																				
CRYPTO Equip	16	0.3																				
Lab Equipment	1	*																				
ADWS Equipment	16	10.5																				
SIL Equipment	1	0.4																				
MILSTAR Equip	7	38.1																				
HPTS TIMING DIV Equip	19	5.8																				
SDRS Equip	1	0.6																				
TACLANE	4	*	8	0.3	7	0.1																
ASCET	1	*																				
Installation Equipment N/R		30.5																				
Engineering Change Orders																						
Data		23.2																				
Training Equipment	12	41.8																				
Support Equipment		7.0		1.1																		
ILS		19.8		*																		
Other Support		113.7		1.0		0.5																
Interim Contractor Support		1.1																				
Installation Cost	84	95.9	7	4.8	5	4.2																
Total Procurement		**698.9**		**7.3**		**4.8**																

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less that $50K
3. 1 ABNCP Prototype Kit procured in R&D
4. Installation quantities include HPTS and ABNCP kits seperately to account for kit purchases although they were combined for installation purposes in 1996.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **E-6A/E-6B** MODIFICATION TITLE: E-6B Modifications (OSIP 32-93)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Contractor Drive-In/Field Modification**

ADMINISTRATIVE LEADTIME: Months PRODUCTION LEADTIME: Months

CONTRACT DATES: FY 2004: FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits	69	90.4	6	3.8	5	4.2																
FY 2004 ( ) kits																						
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	69	90.4	6	3.8	5	4.2																

Note: Total quantities and dollars do not include 12 trainers, 2 Labs and 2 SILs

ADWS Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	5	1	1	2	2	1	2	2																	
Out	3	1	1	2	1	2	2	2	2																

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: Multifunction Display System (OSIP 27-99)

MODELS OF SYSTEMS AFFECTED: E-6A/E-6B | TYPE MODIFICATION: Capability

Operational Requirements Document (ORD) 389-88-98, revised 14 Aug 98, requires installation of the Multifunction Display System (MDS) in all 16 TACAMO aircraft. Current and future changes to Communications, Navigation and Surveillance/Air Traffic Management (CNS/ATM) required by Federal Aviation Administration/International Civil Aviation Origination (FAA/ICAO) are satisfied by the installation of the MDS. Modifications to E-6 cockpit display system are required due to changes in the FAA/ICAO Required Vertical Separation Minimums and other airspace restrictions. Analog gauges are becoming antiquated and difficult to maintain and require replacement in order to meet these and upcoming navigational changes. Incorporation of MDS into the cockpit will replace over 100 dials and gauges with integrated display screens that are customizable for the E-6. The MDS requires modification of a Commercial Off-the-Shelf (COTS) item to an E-6 configuration. Because it is similar to commercial equipment, any further modifications will be less costly. Upgrades to installed systems and changes to Mission Computer Systems can then be accomplished by changing software without changing the hardware. The MDS program has been restructured to increase A/C availability, reduce fleet A/C configurations, avoid $16M logistics costs, increase operational flexibility, maximize production effort and allow trainer modifications to be done concurrently. GPS-A receiver controls are required to support currently installed military GPS receivers. Nav Table update gives the Navigator Station the ability to provide services during a degraded mission, and to support the E-6 Mission Commander and Battlestaff.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: MDS was granted a Milestone III decision on 5 May 1998. Contract award September 9, 1999. Specific and separate Non-Recurring Engineering (NRE) efforts for systems integration of COTS hardware/software occurred in the first two years. Production of NRE COTS article for E-6 configuration began October 2000 with subsequent installation and testing in February 2001. Production deliveries/installations funded through September 05. Funding provided via Program Decision Memorandum (PDM)-1 requires partial spread of NRE efforts. Cost growth from original estimates allows for 1 NRE A/C Kit/Installation, 15 Production A/C Kits/Installations and 1 Operational Flight Trainer Kit/Installation. Initial Operating Capability scheduled for April 2005. Increased cost and schedule requirements for modification of the Operational Flight Trainer (OFT) have required a Milestone Decision Authority (MDA) approved change #2 to the Acquisition Program Baseline (APB). This modification, approved 14 May 2001, provided additional funding for OFT #1 (by delaying aircraft modifications) and cut funding for OFT #2 in FY04 (funding to be used to complete remainder of aircraft modifications). Subsequent program restructure and TOA realignment provides full funding for the program with Full Operational Capability (FOC) planned for 4th Q FY05. GPS-A receiver controls were procured in FY03 and FY-04. The Nav Table Update NRE started in FY04 with kit procurements and installations in FY04 through FY05.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
Nav Update			10	0.1	6	0.1																
MDS Kit	9	7.1	7	5.3																		
Installation Kits N/R		21.3		1.0																		
Installation Equipment																						
MDS Equip	9	54.7	7	10.1																		
Nav Update			10	0.4	6	0.2																
GPS "A"	6	0.1	10	0.2																		
Installation Equipment N/R																						
Engineering Change Orders																						
Data		0.5																				
Training Equipment	2	10.4	1	3.8																		
Support Equipment				*																		
ILS		1.4		0.1		0.1																
Other Support		7.3		5.3		1.1																
Interim Contractor Support																						
Installation Cost	7	12.7	16	4.4	12	9.1																
Total Procurement		**115.6**		**30.7**		**10.6**																

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. Trainer Installation include; two in FY03, one in FY05

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: E-6A/E-6B

MODIFICATION TITLE: Multifunction Display System (OSIP 27-99)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Contractor Drive in Modification**

ADMINISTRATIVE LEADTIME: 1 Months

PRODUCTION LEADTIME: 2 Months

CONTRACT DATES: FY 2004: Jul-04 FY 2005: Feb-05 FY 2006: FY 2007:

DELIVERY DATE: FY 2004: Sep-04 FY 2005: Apr-05 FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY ( ) kits	5	10.4	4	2.9																		
FY 2004 ( ) kits			12	1.5	5	4.6																
FY 2005 ( ) kits					6	*																
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	5	10.4	16	4.4	11	4.6																

Note: Total quantities and dollars do not include three trainers

GPS "A" does not require Install Kits or Installation

MDS Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	5	1	1	2	2	1	2	2																	
Out	3	1	1	2	1	2	2	2	2																

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Nav Table Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In					10		6																		
Out					10		6																		

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: Modified Miniature Receive Terminal (OSIP 10-01)

MODELS OF SYSTEMS AFFECTED: E-6A/E-6B | TYPE MODIFICATION: Obsolescence

DESCRIPTION/JUSTIFICATION: The Air Force E-4B and the Navy E-6B comprise the World Wide Military Command and Control System (WWMCCS) Airborne Resources (WABNRES). They operate within the Nuclear Command and Control System (NCCS) serving principally as a survivable, reliable, endurable airborne command and control communications link between the President, Secretary of Defense and U.S. strategic and non-strategic forces. The WABNRES assets have a requirement to receive very low frequency/low frequency (VLF/LF) Emergency Action Messages (EAMs) and to communicate with one another in a nuclear jamming stressed environment. The Office of the Secretary of Defense (OSD) Strategic C3 Review of 3 September 1991 outlined a new strategic airborne command and control architecture. Key to this revised architecture is a modernization of the E-4B/E-6B VLF/LF capability to include the implementation of the High Data Rate (HIDAR) mode. As stated in the Joint Mission Need Statement for Very Low Frequency/Low Frequency (VLF/LF) receive capability for Strategic Command, Control, and Communications, CAF-NAV OPORD 330-92, the current VLF/LF receivers (R-2141) on the E-6B are outdated, and the R-616A cannot be modified to incorporate the HIDAR mode. The Modified Miniature Receive Terminal (MMRT) provides the E-6B with reliable VLF/LF receive capability that will insure interoperability and connectivity with the forces in support of the new Command, Control and Communication (C3) architecture. This modification is installed in all 16 TACAMO aircraft. The MMRT program was restructured to increase A/C availability, reduce fleet A/C configurations, reduce logistics costs, increase operational flexibility and maximize production effort. Part of the MMRT modification was to replace a Computer Display, which has become obsolete.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Joint program with Air Force as lead Service. Preliminary Design Review completed. Critical Design Review completed March 1998. Prototype installation achieved October 1999. Contractor Test/Developmental Test achieved November/December 1999. Congress reduced FY00 funding to $0 due to program slippage. Initial Operational Test and Evaluation completed 24 March 2000. MSIII decision 25 May 2000. Production contract August 2001. Installations completed in FY04.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
MMRT Install Kit	15	2.7																				
Flat Panel	8	*	8	*																		
SIL	1	0.2																				
Refurbish Kit	1	*	1	*																		
Installation Kits N/R		0.1																				
Installation Equipment																						
DKU Equip	9	0.2																				
Flat Panel	8	0.1	8	*																		
Installation Equipment N/R																						
Engineering Change Orders																						
Data		*																				
Training Equipment	4	1.3																				
Support Equipment																						
ILS		0.2																				
Other Support		0.7		0.8																		
Interim Contractor Support		0.1																				
Installation Cost	14	5.5	21	2.1																		
Total Procurement		**11.2**		**3.0**																		

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. First MMRT installation performed with Air Force RD&T money

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: E-6A/E-6B

MODIFICATION TITLE: Modified Miniature Receive Terminal (OSIP 10-01)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Contractor Field Modification**

ADMINISTRATIVE LEADTIME: 2 Months

PRODUCTION LEADTIME: 1 Months

CONTRACT DATES: FY 2004: Feb-04 FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: Mar-04 FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY ( ) kits	11	4.9	12	2.1																		
FY 2004 ( ) kits			8	*																		
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	11	4.9	20	2.1																		

Note: Install schedule does not include four trainers

MMRT Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	9		3	2	1																				
Out	8	1	2	2	2																				

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Flat Panel Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	2	4	4	3	3																				
Out	2	4	4	3	3																				

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: E-6 MISSION SUPPORT (OSIP 07-02)

MODELS OF SYSTEMS AFFECTED: E-6A/E-6B | TYPE MODIFICATION: Capability

DESCRIPTION/JUSTIFICATION: The program will correct Follow-on Test & Evaluation (FOT&E) (Sep 98) deficiencies by funding design update and fabrication of new rewind machines, purchase of "off-the-shelf" power carts to provide adequate aircraft power for full mission ground checkout and upgrade of the Frequency Referencing Auto Parallel Unit (FRAPU) to provide uninterrupted transfer of power from A/C to ground systems. There are currently too few rewind machines which are rapidly becoming unsupportable, resulting in the inability to replace the mission antenna at multiple locations when the Long Trailing Wire Antenna is lost. Current power carts do not provide adequate ground power causing system shutdown and failure of critical system components on A/C startup.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: February 03 procured "off-the-shelf" power carts. February 03 contract awarded for NRE to update the design of rewind machines, replacing obsolete components with off-the-shelf technology, and start procurement. Additional units were procured in FY04 with two planned for FY06 and one for FY07. FRAPU fabrication in FY07-FY09 with prototype installation aboard the E-6 A/C and validation/verification in FY07 -- Upgrade complete FY09

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
FRAPU									4	0.2												
Installation Kits N/R																						
Installation Equipment																						
BATTERY TAC																						
FRAPU									4	0.5												
Installation Equipment N/R																						
Engineering Change Orders																						
Data										*												
Training Equipment										*												
Support Equipment	6	6.4	2	2.6			2	2.7	1	1.1												
ILS																						
Other Support		0.5		0.2				0.7		0.7												
Interim Contractor Support																						
Installation Cost									4	0.7												
Total Procurement		**6.9**		**2.8**				**3.4**		**3.4**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. Includes an Electrical Trainer

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: E-6A/E-6B MODIFICATION TITLE: E-6 MISSION SUPPORT (OSIP 07-02)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Contractor Field Modification**

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 5 Months

CONTRACT DATES: FY 2004: FY 2005: FY 2006: FY 2007: Nov-06

DELIVERY DATE: FY 2004: FY 2005: FY 2006: FY 2007: Apr-07

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits																						
FY 2004 ( ) kits																						
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits									4	0.7												
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL									4	0.7												

Note: 1. Install dollars and quantities do not include one trainer.

Installation Schedule: FRAPU

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In																2	2								
Out																2	2								

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: Correction of Safety Deficiencies (OSIP 08-02)

MODELS OF SYSTEMS AFFECTED: E-6A/E-6B | TYPE MODIFICATION: Capability

DESCRIPTION/JUSTIFICATION: Correction of safety deficiencies for the protection of personnel and equipment. FAA APA 19-98 requires a smoke detection system in the aircraft lower avionics bays. The safety modification also replaces fuel tank Kapton wiring and an uncertified Cartridge Activated Device (CAD) (explosive) for severing the Long Trailing Wire Antenna under emergency conditions, installs new improved inertia reels and shoulder harnesses, provides the ability to transmit from the second Reel Operator's Intercom Communication System (ICS) position, replaces unsafe fuel boost pumps and corrects safety deficiencies in the aircraft auxiliary power unit (APU) which required a Heat Shield. The program takes advantage of available and emerging commercial technology for crew/aircraft safety.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: ECP to modify existing equipment -- Contract awarded FY03 for APU, ineria reels and fuel boost pump. NRE for CAD completed in FY03 with fabrication and installation in FY04 and FY05. Smoke NRE complete FY03 with Installs FY04-06.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
Smoke Detector			5	*	7	*	4	*														
Kapton Wire Fuel Pump							8	0.1	8	0.1												
Reel Ops									4	0.5												
APU	16	0.4																				
Fuel Boost Pumps	16	0.7																				
Installation Kits N/R		0.2						0.6														
Installation Equipment																						
Smoke Detector			5	0.3	7	0.4	4	0.2														
Kapton Wire Fuel Pump																						
HPTS CAD Cutters			13	0.4	3	0.1																
Reel Ops									4	0.1												
Inertial Reels	16	0.4																				
Installation Equipment N/R		0.8																				
Engineering Change Orders																						
Data				0.1																		
Training Equipment			2	0.1																		
Support Equipment																						
ILS																						
Other Support		0.8		0.6		0.2		0.2		*												
Interim Contractor Support																						
Installation Cost			20	0.6	10	0.4	12	0.4	12	0.3												
Total Procurement		**3.3**		**2.1**		**1.1**		**1.6**		**1.1**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. No installs required for Fuel Boost Pumps and APU

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: E-6A/E-6B

MODIFICATION TITLE: Correction of Safety Deficiencies (OSIP 08-02)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Contractor Field Modification**

ADMINISTRATIVE LEADTIME: 1 Months

PRODUCTION LEADTIME: Various Months

CONTRACT DATES: FY 2004: Jul-04 FY 2005: Dec-04 FY 2006: Dec-05 FY 2007: Dec-06

DELIVERY DATE: FY 2004: Aug-04 FY 2005: Feb-05 FY 2006: Feb-06 FY 2007: Feb-07

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY ( ) kits																						
FY 2004 ( ) kits			18	0.5																		
FY 2005 ( ) kits					10	0.4																
FY 2006 ( ) kits							12	0.4														
FY 2007 ( ) kits									12	0.3												
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL			18	0.5	10	0.4	12	0.4	12	0.3												

Note: Does not include 2 Trainers

Smoke Detectors Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In					5		3	3	1		2	2													
Out					5		3	3	1		2	2													

	FY 2010				FY 2011				To	Total
	1	2	3	4	1	2	3	4	Complete	
In										
Out										

Reel Ops Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In															1	2	1								
Out															1	2	1								

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

HPTS CAD Cutters Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In					13		3																		
Out					13		3																		

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Kapton Wire Fuel Pump Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In											2	3	3		2	3	3								
Out											2	3	3		2	3	3								

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: Technology Insertion (OSIP 03-04)

MODELS OF SYSTEMS AFFECTED: E-6A/E-6B | TYPE MODIFICATION: Capability

DESCRIPTION/JUSTIFICATION: Funding to fix supportability/obsolescence issues, address interoperability issues, update systems and insert new technologies into the E-6 platform. With the E-6's having 35 individual computers dealing with communications and mission systems, Technology Insertion addresses supportability, new technologies, systems updates and interoperability issues in the areas of: Mission Computer Set (MCS), Flight Management Computer System and Mission Avionics Processing System (MAPS) hardware obsolescence. The MCS is rapidly becoming unsupportable. Intervention is required to ensure this mission critical system continues to operate. Also, the Flight Management Computer system will become obsolete and needs to be upgraded in order to be supportable beyond FY08. The mission critical Mission Avionics Processing System (MAPS) is currently under development as part of the Block I program to replace the MCS and is expected to require Tech Refreshment starting FY10 in order to avoid the obsolescence issues that now plague the MCS.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: MCS update is divided into Spirals. Spiral I, which was started in FY04, will add an un-interruptible power supply and replace the current mechanical hard drive with a solid state device. NRE for Spiral II will start in FY05 with all the obsolete circuit boards being replaced in FY07. Flight Management Computer NRE will start in FY07 with installs starting in FY08. The MAPS Technical Refreshment will start in FY10 with NRE. Installs will start in FY12.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
HF Morse Converter																						
MCS Spiral 1			16	*																		
MCS Spiral 2																						
C41																						
LAB																						
SIL			1	*																		
MAPS Upgrade																						
Installation Kits N/R																						
Installation Equipment																						
HF Morse Converter																						
MCS Spiral 1			16	0.6																		
MCS Spiral 2									16	1.4												
C41																						
LAB																						
SIL			1	*					1	0.1												
MAPS Upgrade																						
FMCS Single Board																						
Installation Equipment N/R				0.5		3.0		5.5		3.9												
Engineering Change Orders																						
Data				0.1				0.1														
Training Equipment			2	0.3				0.2	2	0.2												
Support Equipment																						
ILS																						
Other Support				0.3		0.1		0.4		0.4												
Interim Contractor Support																						
Installation Cost			19	0.3					19	0.2												
Total Procurement				**2.2**		**3.1**		**6.2**		**6.2**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. MCS require no Installation Kits.
4. Includes SIL and MAS trainers

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: E-6A/E-6B

MODIFICATION TITLE: Technology Insertion (OSIP 03-04)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Contractor Field Modification**

ADMINISTRATIVE LEADTIME: 2 Months

PRODUCTION LEADTIME: VARIOUS Months

CONTRACT DATES: FY 2004: Jul-04 FY 2005: FY 2006: FY 2007: Dec-06

DELIVERY DATE: FY 2004: Sep-04 FY 2005: FY 2006: FY 2007: Apr-07

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY ( ) kits																						
FY 2004 ( ) kits			16	0.2																		
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits									16	0.2												
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL			16	0.2					16	0.2												

Note: MCS do not require Install Kits.
Does not include the 3 SIL or 11 Trainers Installs

MCS Spiral Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In					16																				
Out					10	6																			

	FY 2010				FY 2011				To Complete	Total
	1	2	3	4	1	2	3	4		
In										
Out										

MCS Spiral II Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In																8	8								
Out																8	8								

	FY 2010				FY 2011				To Complete	Total
	1	2	3	4	1	2	3	4		
In										
Out										

FMCS Single Board Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In																									
Out																									

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

MAPs upgrade

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In																									
Out																									

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: Service Life Extension Program (OSIP 03-07)

MODELS OF SYSTEMS AFFECTED: E-6A/E-6B | TYPE MODIFICATION: Capability

DESCRIPTION/JUSTIFICATION: Funding to do extensive engineering analysis using modern analytic tools (Service Life Assessment Program - SLAP) will identify E-6B structural areas requiring rework to extend the E-6B service life to 2040+ (Service Life Extension Program - SLEP). FY07 funding is required for NRE for the Service Life Extension rework. Current E-6 usage indicates SLEP must commence in 2007 to prevent the E-6 from becoming unable to perform its mission with the downing of more than two aircraft in 2016. There is a potential safety of flight issue due to unknown rate of deterioration of the E-6 airframe

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: FY04 RDT&E contract award for SLAP to identify structural areas requiring rework. FY06 MS C for SLAP. SLEP contract award and prototype installation in FY08. SLEP full rate production in FY09 with an additional 15 kits fabricated FY09-FY13. Installation ends in FY14.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E		0.6		4.9		1.2		3.9														
PROCUREMENT																						
Installation Kits																						
SLEP																						
Installation Kits N/R										5.1												
Installation Equipment																						
SLEP																						
Installation Equipment N/R																						
Engineering Change Orders																						
Data										1.3												
Training Equipment																						
Support Equipment																						
ILS																						
Other Support										0.3												
Interim Contractor Support																						
Installation Cost																						
Total Procurement										6.7												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: E-6A/E-6B MODIFICATION TITLE: Service Life Extension Program (OSIP 03-07)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Contractor Drive In Modification**

ADMINISTRATIVE LEADTIME: Months PRODUCTION LEADTIME: Months

CONTRACT DATES: FY 2004: FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits																						
FY 2004 ( ) kits																						
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL																						

SLEP Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In																									
Out																									

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

CLASSIFICATION: UNCLASSIFIED

Exhibit P-40, BUDGET ITEM JUSTIFICATION

DATE: **February 2005**

APPROPRIATION/BUDGET ACTIVITY
Aircraft Procurement, Navy/APN-5 Aircraft Modifications

P-1 ITEM NOMENCLATURE
Executive Helicopter Modifications

Program Element for Code B Items:

Other Related Program Elements

	Prior Years	ID Code	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	To Complete	Total
QTY		A										
COST (In Millions)	**142.5**	A	**26.3**	**21.7**	**16.7**	**45.2**	**15.5**	**15.9**	**16.2**	**16.6**	**4.2**	**320.8**

This line item funds modifications to the (11) VH-3D and (8) VH-60N Executive Helicopters. These aircraft are assigned to Marine Helicopter Squadron One to support the President of the United States. The Communications/Navigation/Survivability modification to both the VH-3D and VH-60N consists of a communications system upgrade to provide communications commonality between Executive Helicopters, Air Force One, and N-Cap, Traffic Collision Avoidance System (TCAS), VH-60 Maintenance Trainer, TACAN Upgrade, GPS Upgrade; and a tailored electronic warfare (EW) suite. The VH-60N Cockpit consists of an upgrade to an all-glass instrumentation. The Communication Suite Upgrade consists of SATCOM radio upgrade, Digital FM radio upgrade, HF radio upgrade, and Data Transfer capability upgrade. The overall goal of modifications budgeted in FY 2006 is to continue procurement efforts in accordance with the planned procurement strategy implemented during FY 1993. The VH-3D Lift Improvement program consists of the operational level install of 55 composite main rotor blades on all eleven VH-3Ds.

The specific modifications budgeted and programmed are:

(TOA, $ in Millions)

OSIP No.	Description	Prior Years	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	To Complete	Total
22-93	Executive Helicopter Survivability Progra	123.8	2.4	0.6								**126.8**
09-02	VH-60N Cockpit Upgrade	4.7	16.9	10.7	9.9	10.0	12.9	11.6	16.2	16.6	4.2	**113.6**
14-02	Communication Suite Upgrade	14.0	7.0	10.5	6.9	5.2	2.6	4.2				**50.3**
	DERF (non add)	10.1										
04-07	VH-3D Lift Improvement					30.0						**30.0**
Total		**142.5**	**26.3**	**21.7**	**16.7**	**45.2**	**15.5**	**15.9**	**16.2**	**16.6**	**4.2**	**320.8**

Note: Totals may not add due to rounding.
***FY02 DERF funding augments OSIP 14-02, Communication Suite Upgrade**

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: EXECUTIVE HELICOPTER SURVIVABILITY PROGRAM (OSIP 22-93)

MODELS OF SYSTEMS AFFECTED: VH-3D/VH-60N | TYPE MODIFICATION: SAFETY

DESCRIPTION/JUSTIFICATION: The VH-3D and VH-60N Executive Helicopters provide worldwide emergency evacuation and executive transport missions for the President of the United States. Missions include operations in areas subject to terrorist infiltrations, light anti-aircraft weapons, small arms, infrared seeking missiles, laser weapons, and other external threats. The survivability improvements will provide mission aircraft with tailored Aircraft Survivability Equipment (ASE). International and federal laws governing commercial air traffic require collision avoidance systems for certain aircraft which carry passengers. FAA requirements call for installation of a collision avoidance warning system no later than 1996 for most commercial aircraft. The collision warning system will give pilots a real time indication of proximity threat traffic. The system will augment radar tracking and provide traffic advisories when operating in areas with no radar coverage.

Modification will include:

(1) 19 Survivability change kits and GFE (11 VH-3D and 8 VH-60N) in FY 1993 through FY 1998. One prototype kit was procured in FY 1993 for the VH-3D and one in FY 1994 for the VH-60N. 10 production kits were procured for the VH-3D in FY 1995 through FY 1998, and 7 VH-60N production kits were procured in FY 1996 through FY 1998. Installation of these systems are being performed as part of ECP 5976 (VH-3D) and ECP 3407 (VH-60N).

(2) Traffic Alert and Collison Avoidance System (TCAS) install kits and IFF (8 VH-60N), included as part of the MUG/CNSU kits in FY 1996 through FY 2002. VH-60N TCAS production kits were procured as part of the MUG/CNSU kits in FY 1996 through FY 1998 and was installed as part of ECP 3407. TCAS/IFF kits for the VH-3D were procured in FY 1998 through FY 2001 and installed under ECP 5981 in FY2000 through FY2005. Mode "S" update will follow as technology matures. ORD OR-315-05-92 and OR-316-05-92 apply.

(3) An interim Auto Ignition system was developed and installed on the VH-60N aircraft in FY 1994. Permanent systems will be installed coincident with the VH-60N survivability mod installations.

(4) Two Aircrew Procedures Trainers/Simulators (APT).

(5) In FY 01 an FM immunity capability was procured/installed on the VH-60N and VH-3D to prevent receiving erroneous signals and false position indications for the VOR/ILS system.

(6) VH-60N Maintenance Trainer

(7) MAGR 2000 GPS Upgrade for VH-3D/VH-60N

(8) TACAN Navigation Upgrade for VH-3D/VH-60N

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Integration efforts to the airframes will be performed by either Sikorsky Aircraft or the individual kit manufacturer. Software integration, which started in FY 1993, is being developed by NAWC-AD. The first installation of TCAS/IFF was in May 1999 for the VH-60N and was in February 2001 for the VH-3D. TCAS installations will be complete in FY05. FY04 Tailored Emitter Identification Device files, Tailored Mission Data Files, Modified Blanking pulse, Production integration engineering support, Test integration engineering support, Modeling and Simulation, Effectiveness testing and Operational Validation/Verification.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
VH-3D Survivability Kit	12	11.9																				
VH-60N Survivability Kit	9	5.7																				
VH-3D TCAS Kit	11	1.6																				
VH-60N Auto Ignition Kit	8	1.1																				
Installation Kits N/R		20.4																				
Installation Equipment																						
ALQ-144	19	2.4																				
MUST Radio	3	0.3																				
ALE-47 MLVS		0.1																				
ALE-47	11	0.7																				
VH-3D TCAS	11	0.9																				
APX-100 Upgrade	19	0.5																				
FM Immunity VH-3D	11	0.2																				
FM Immunity VH-60N	8	0.1																				
APR-39A(V)2				0.1																		
Installation Equipment N/R		7.7																				
Engineering Change Orders		0.1																				
Data		4.1																				
Training Equipment		20.6	2	0.5																		
Support Equipment		1.2	3	0.2																		
ILS		1.0																				
Other Support		23.7		1.1		0.3																
Interim Contractor Support																						
Installation Cost	56	19.3	2	0.6	1	0.3																
Total Procurement		**123.8**		**2.4**		**0.6**																

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **VH-3D/VH-60N**

MODIFICATION TITLE: EXECUTIVE HELICOPTER SURVIVABILITY PROGRAM

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **ALQ-144 Phase Lock kits will be installed as Drive-In Mod. Survivability kits (AAR-47, APR-39, AVR-2 and ALE-47) will be installed on VH-3D and VH-60N during SPAR.**

Collision avoidance warning systems are currently being evaluated and will be incorporated during SPAR. (All turn-key in FY 1996 and prior fiscal years.)

ADMINISTRATIVE LEADTIME: 9 Months

PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2004: _____ FY 2005: _____ FY 2006: _____ FY 2007: _____

DELIVERY DATE: FY 2004: _____ FY 2005: _____ FY 2006: _____ FY 2007: _____

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits	56	19.3	2	0.6	1	0.3																
FY 2004 ( ) kits																						
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	**56**	**19.3**	**2**	**0.6**	**1**	**0.3**																

Installation Schedule - VH-3D Survivability

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	12																								
Out	12																								

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Installation Schedule - VH-60 Survivability

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	9																								
Out	9																								

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **VH-3D**

MODIFICATION TITLE: EXECUTIVE HELICOPTER SURVIVABILITY PROGRAM

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Collision avoidance warning systems will be incorporated during SPAR.**

ADMINISTRATIVE LEADTIME: 2 Months

PRODUCTION LEADTIME: 16 Months

CONTRACT DATES: FY 2004: FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: FY 2005: FY 2006: FY 2007:

Installation Schedule - VH-3D TCAS

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	8		1	1		1																			
Out	5		1	1	1		1	1	1																

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: VH-60N Cockpit Upgrade (OSIP 09-02)

MODELS OF SYSTEMS AFFECTED: VH-60N | TYPE MODIFICATION: SAFETY

DESCRIPTION/JUSTIFICATION: In order to meet the requirement of providing safe and timely transportation for the President, Vice President, and other parties as directed by the Director of the White House Military Office (WHMO) in support of the alert and contingency mission requirement of the WHMO Operations plan, the VH-60N aircraft cockpit must be upgraded to provide enhanced communication and navigation capabilities while reducing pilot workload. The cockpit upgrade should be an all-glass instrumentation built around multi-function pilot workload. A moving map display complete with terrain database should be incorporated, while maintaining the current capabilities of TACAN, VOR, ILS, ADF, TCAS, CSFIR, FM Immunity, and Mode S IFF. The navigation system should include laser ring gyros with embedded GPS that has integrity monitoring/IFR certification. A color radar with stormscope should be incorporated. Communication capabilities must be consistent with WHCA (White House Communications Agency) planning and NSA requirements. Three UHF/VHF/FM radios shall be included. Four FM radios, SATCOM, HF with ALE currently on the VH-60N must be maintained. A coupled autopilot function shall be incorporated into the cockpit management system.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Program was approved as an ACAT IV-T program in July 2001. A Milestone B decision was approved in November 2003. Non-Recurring Engineering (NRE) for the cockpit ugrade began in FY 2002 with a prototype kit scheduled for FY 2006. In FY 2004 Install Equipment NRE (software modification) began. Installation of 1st production kit will begin in FY2007. Development and Operational Testing is scheduled for FY 2007/8. Initial Operating Capability is scheduled for FY 2008 with Full Operating Capability scheduled for FY 2011.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
VH-60N Cockpit Upgrade Kit							1	1.0	2	2.1												
Installation Kits N/R		3.1		3.0		7.7		6.8														
Installation Equipment								0.6		1.2												
Installation Equipment N/R				13.5																		
Engineering Change Orders						2.5																
Data										0.5												
Training Equipment							1	1.2														
Support Equipment																						
ILS										0.6												
Other Support		1.6		0.4		0.5		0.3		0.5												
Interim Contractor Support										1.0												
Installation Cost									2	4.0												
Total Procurement		**4.7**		**16.9**		**10.7**		**9.9**		**10.0**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **VH-60N** MODIFICATION TITLE:

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Installation of Cockpit Upgrade during SPAR.**

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2004: FY 2005: FY 2006: Jan-06 FY 2007: Jan-07

DELIVERY DATE: FY 2004: FY 2005: FY 2006: Dec-06 FY 2007: Dec-07

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits																						
FY 2004 ( ) kits																						
FY 2005 ( ) kits																						
FY 2006 ( ) kits									2	4.0												
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL									**2**	**4.0**												

Total Quantity includes 1 Trainer

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In															1										
Out																									

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: Communication Suite Upgrade (OSIP 14-02)

MODELS OF SYSTEMS AFFECTED: VH-60N/VH-3D | TYPE MODIFICATION: SAFETY

DESCRIPTION/JUSTIFICATION: JCS Directive MJCS-63-89 states that all access to UHF SATCOM will use demand assigned multiple access (DAMA). The White House Communication Agency (WHCA) has directed that all White House Military Organization (WHMO) elements be connected and have the ability to operate in the DAMA mode by the year 2005. WHCA has also directed that all WHMO elements have the ability to operate in the High Frequency/Automatic Link Establishment (HF/ALE) mode by the year 2007. Additionally, the WHMO directed the upgrade to the data transfer computer and printer on board the VH-60N which is required to transmit, receive, and print secure data files via the SATCOM and HF radios. Satisfaction of the DAMA SATCOM requirement will require the incorporation of 2 DAMA capable radios in each aircraft to satisfy the need for full duplex communication. OFP software will be modified by NAWC-AD to allow the new system to work in the aircraft. An install kit will be built to house the radio and equipment and then installed in the aircraft. Satisfaction of the Data Transfer Computer/Printer requirement will require the procurement of a compatible, TEMPEST certified data transfer computer and printer. OFP software will be modified by NAWC-AD to allow the new equipment to operate in the aircraft. This is to be an operational level install. To satisfy the HF/ALE requirement will require a software modification to the OFP to enable the current HF radio to utilize this function. OFP software will be modified by NAWC-AD. WHMO has also directed that FM radios operate in the digital mode.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: This program was approved as an Abbreviated Acquisition Program in July 2001. Program was upgrade to ACAT IV-M in March 2003. DAMA SATCOM upgrade will be performed between FY-2002 through FY-2008. Installations are performed in conjunction with scheduled depot maintenance. VAL/VER will be performed on the delivery of the first production VH-3D and VH-60N. This is planned for FY-2005. HF/ALE modification will be performed between FY-2005 through FY-2008 with a Val/Ver scheduled for FY-2007. The Data Transfer capability modification will be performed between FY-2003 through FY-2005 with a Val/Ver in FY-2005. Performance testing and EMC/EMI testing will be performed by NAWC-AD. Val/Ver will be performed by HMX-1 to ensure interoperability with all WHMO elements. Digital FM capability will be performed between FY 2003 through FY 2005, with a Val/Ver in FY 2004.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
VH-3D SATCOM	5	0.9			1	0.1	3	0.2	2	0.1												
VH-60 SATCOM			3	0.6	2	0.4	2	0.4	1	0.2												
VH-60N DTC/P																						
DIGITAL FM	19	1.0	9	0.9																		
SATCOM (O-level)				0.3																		
Installation Kits N/R		14.5		1.6		1.0																
Installation Equipment	53	2.1	3	0.7																		
Installation Equipment N/R		0.6		0.7		1.0		1.0		0.4												
Engineering Change Orders						1.8		0.6														
Data		0.9		0.7		0.3		0.5		0.3												
Training Equipment	4	0.3	1	0.2		0.5				0.3												
Support Equipment				0.1		0.2		0.2		0.1												
ILS		0.1				1.0																
Other Support		3.8		1.1		1.8		1.5		1.0												
Interim Contractor Support																						
Installation Cost					4	2.4	5	2.6	5	2.7												
Total Procurement		**24.1**		**7.0**		**10.5**		**6.9**		**5.2**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **VH-60N/VH-3D** MODIFICATION TITLE:

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Installation of Comm Suite Upgrade during SPAR.**

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 9 Months

CONTRACT DATES: FY 2004: Jan-04 FY 2005: Jan-05 FY 2006: Jan-06 FY 2007: Jan-07

DELIVERY DATE: FY 2004: Sep-04 FY 2005: Sep-05 FY 2006: Sep-06 FY 2007: Sep-07

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits					3	1.2	2	1.0														
FY 2004 ( ) kits					1	1.2	2	0.5														
FY 2005 ( ) kits							1	1.0	2	0.5												
FY 2006 ( ) kits									3	2.1												
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL					**4**	**2.4**	**5**	**2.6**	**5**	**2.7**												

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In						1	1	1	1	1	2	1	1	1	2	1	1								
Out								1	1	1	1	1	1	2	1	1	1								

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: VH-3D Lift Improvement Program (OSIP 04-07)

MODELS OF SYSTEMS AFFECTED: VH-3D | TYPE MODIFICATION: Safety

DESCRIPTION/JUSTIFICATION: The VH-3D Lift Improvement program consists of the operational level install of 55 composite main rotor blades on all eleven VH-3D aircraft. These blades will improve performance allowing increased passengers and fuel loads. Composite blades reduce the torque required to hover and for level flight. Composite blades reduce vibrations and structural loads. VH-3D is the only aircraft in the inventory using metal blades.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Flight test for the procurement of the VH-3D composite main rotor blades will take place in the 1st and 2nd quarter of FY 2007. Procurement and operational install of these blades will take place in the 3rd and 4th quarter of FY 2007.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits									11	17.2												
Installation Kits N/R																						
Installation Equipment																						
Installation Equipment N/R										6.0												
Engineering Change Orders																						
Data										2.2												
Training Equipment										1.0												
Support Equipment																						
ILS										0.6												
Other Support										3.0												
Interim Contractor Support																						
Installation Cost																						
Total Procurement										**30.0**												

Notes:

1. Totals may not add due to rounding
2. Blades will be 'O' level installs

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET P-40				DATE: February 2005								
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/APN-5 Aircraft Modifications				P-1 ITEM NOMENCLATURE Special Project Aircraft								
Program Element for Code B Items:				Other Related Program Elements								
	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
QUANTITY												
COST (In Millions)	117.0		56.0	16.6	20.8	14.3	14.7	15.0	15.4	15.7		285.4

The Special Projects program modifies and/or replaces obsolete intelligence collection equipment as required in (6) P-3 aircraft. Procurements vary in each fiscal year and include common Navy systems for increased capability, reduced operator workload and common logistics. Active PAA inventory is 4 with additional 2 BAA aircraft in the Special Mission inventory. To date a total of 5 aircraft have been delivered. The 6th aircraft is scheduled for delivery July 05. The specific modifications budgeted and programmed are:

OSIP No.	Description	Prior Years	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
18-97	P-3 Special Project Aircraft	74.4										74.4
19-97	P-3 Intelligence Sensors/Systems	42.6	56.0	16.6	20.8	14.3	14.7	15.0	15.4	15.7		211.0
TOTAL		117.0	56.0	16.6	20.8	14.3	14.7	15.0	15.4	15.7		285.4

Note: Totals may not add due to rounding. The FY03-07 DERF funding augments OSIP 19-97, Improved Comm & Collection Capabilities

CLASSIFICATION:

DD Form 2454, JUN 86

Exhibit P-3a INDIVIDUAL MODIFICATION

MODIFICATION TITL P-3 Special Project Aircraft (OSIP 18-97)

MODELS OF SYSTEM AFFECTED: P-3B/C TYPE MODIFICATIC Operational Improvement

DESCRIPTION/JUSTIFICATION:

This modification replaces obsolete intelligence collection equipment in four P-3 Special Project aircraft by:

1. Replacement of two (2) P-3 Special Project aircraft reached 100% FLE (fatigue life expenditure) in FY01.
   This effort included upgrading two (2) existing aircraft to the same configuration and operational capability as the replacement P-3 Special Project aircraft.
   The increased capability is classified.
2. Procured common Navy systems for increased capability, reduced operator workload and common logistics.
3. Updated radio frequency distribution hardware for selected sensors.
4. Converted interior and exterior of aircraft for future operations.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Approval for full production is not required.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
P-3 System A (Mission Unique	4	.5																				
P-3 System B (Mission Unique																						
LESPA	4	.9																				
Replacement Aircraft	4	12.9																				
Installation Kits N/R		7.2																				
Installation Equipment		11.2																				
Installation Equipment N/R		5.2																				
Engineering Change Orders																						
Data		.3																				
Training Equipment		.2																				
Support Equipment																						
ILS		.9																				
Other Support		12.5																				
Interim Contractor Support																						
Installation Cost	4	22.7																				
TOTAL PROCUREMENT	12	74.4																				

Notes:

1. Totals do not add due to rounding
2. Asterisk indicates amount less than 51K

* Installation of FY01-02 Mission Unique Installation Equipment and LESPA to be accomplished at field (O) level.

Exhibit P-3a

Exhibit P-3a

MODELS OF SYSTEMS AFFECT: P-3B/C

MODIFICATION TITLE: P-3 Special Project Aircraft (OSIP 18-97)
Replacement Aircraft / Block Mod

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Drive In.

ADMINISTRATIVE LEADTIME: 6 Months

PRODUCTION LEADTIME: 18 Months

CONTRACT DATES: FY 2004: _____ FY 2005: _____ FY 2006: _____ FY 2007: _____

DELIVERY DATE: FY 2004: _____ FY 2005: _____ FY 2006: _____ FY 2007: _____

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY (4) kits	4	22.7																				
FY 2004 () kits																						
FY 2005 () kits																						
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
To Complete () kits																						
TOTAL	4	22.7																				

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	4																								
Out	3	1																							

	FY 2010				FY 2011				TO	
	1	2	3	4	1	2	3	4	COMPLETE	TOTAL
In										
Out										

Exhibit P-3a | INDIVIDUAL MODIFICATION

MODIFICATION TITLE: P-3 Intelligence Sensors and Systems (OSIP 19-97)

MODELS OF SYSTEM AFFECTED: P-3B/C | TYPE MODIFICATION: Operational Improvement

DESCRIPTION/JUSTIFICATION:

This modification replaces obsolete intelligence collection equipment in six P-3 Special Project aircraft by:

1. Procurement of special mission equipment as directed by the Chief of Naval Operations.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Approval for full production is not required.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits	4	.7																				
Installation Kits N/R																						
Installation Equipment																						
Mission Unique Equipment		30.2		12.5		5.5		11.3		8.0												
Improved Comm & Collection Capabilities		3.0		16.6		4.0		3.3		1.0												
Installation Equipment N/R		3.7		20.9		4.4		3.0		2.7												
Engineering Change Orders																						
Data		.1		.6		.2		.3		.2												
Training Equipment								.2		.2												
Support Equipment								.1		.1												
ILS		.4		.7		.5		.2		.2												
Other Support		4.1		4.8		2.0		.5		.3												
Interim Contractor Support																						
Installation Cost		.4						1.8		1.8												
TOTAL PROCUREMENT	4	42.6		56.0		16.6		20.8		14.3												

Notes:

1. Totals do not add due to rounding
2. Asterisk indicates amount less than 51K

NOTE: Installation of equipment will be completed by a combination of Contractor drive in and field (O) level installs.

3. This OSIP also includes FY02-FY07 Defense Emergency Response Fund (DERF) funding for Improved Comm & Collection Capabilities in supportt of Operation Enduring Freedom.

Exhibit P-3a

Exhibit P-3a

MODELS OF SYSTEMS AFFECTE P-3B/C

MODIFICATION TITLE: P-3 Intelligence Sensors and Systems (OSIP 19-97)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Drive In.

ADMINISTRATIVE LEADTIME: 5 Months

PRODUCTION LEADTIME: 8 Months

CONTRACT DATES: FY 2004: ____ FY 2005: 3/05 FY 2006: 2/06 FY 2007: 2/07

DELIVERY DATE: FY 2004: ____ FY 2005: 11/05 FY 2006: 10/06 FY 2007: 10/07

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2003 & PY kits																						
FY 2004 kits																						
FY 2005 kits								1.8														
FY 2006 kits										1.8												
FY 2007 kits																						
FY 2008 kits																						
FY 2009 kits																						
FY 2010 kits																						
FY 2011 kits																						
To Complete kits																						
TOTAL								1.8		1.8												

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In																									
Out																									

	FY 2010				FY 2011				TO	
	1	2	3	4	1	2	3	4	COMPLETE	TOTAL
In										
Out										

NOTE: Installation equipment includes both Mission Unique and Improved Communication and Collection Capabilities to be installed concurrently.

CLASSIFICATION: UNCLASSIFIED

Exhibit P-40, BUDGET ITEM JUSTIFICATION

DATE: **February 2005**

APPROPRIATION/BUDGET ACTIVITY: **Aircraft Procurement, Navy/APN-5 Aircraft Modifications**

P-1 ITEM NOMENCLATURE: **T-45 Series Modification**

Program Element for Code B Items:

Other Related Program Elements

	Prior Years	ID Code	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	To Complete	Total
QTY		A										
COST (In Millions)	**86.1**	A	**20.6**	**44.0**	**50.0**	**38.9**	**42.9**	**33.6**	**34.3**	**34.9**	**75.3**	**460.4**

This line item funds modifications to T-45A aircraft. The T-45A Goshawk is a tandem-seat, carrier capable derivative of the existing British Aerospace Hawk aircraft powered by a single Rolls Royce Adour engine. It serves as the aircraft component of the T45TS integrated jet pilot training system which replaces the three decade old TA-4 and T-2 technology. The overall goal of the modifications budgeted in FY 2006 is to correct discrepancies and deficiencies discovered after delivery of the aircraft and to commence major upgrades to the aircraft cockpit, navigation system, and aircrew ejection seats. FY03 funded simulator is an analog conversion and will support production aircraft delivered to Kingsville in FY04. T-45 aircraft and simulators are facing critical avionics obsolescence and Diminishing Manufacturing Source (DMS) issues. OSIP 17-04 (Required Avionics Modernization Program (RAMP)) was established to convert the T-45As (analog) to the digital T-45C configuration. OSIP (02-06) (Synthetic Radar) was established because the T-2/T39 are being divested in 2006/2013 and the training command cannot complete UMFO training. No new Type Model Series will be developed to pickup this requirement, as a result, the T-45 will modify 30 aircraft to incorporate Synthetic Radar Training into curriculm.

The designed service life of the aircraft is 14,400 hours with the average remaining service life of inventory aircraft estimated at 11,692 hours.

The specific modifications budgeted and programmed are:

(TOA, $ in Millions)

OSIP No.	Description	Prior Years	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	To Complete	Total
08-95	T45TS Correction of Deficienc	73.0	11.0	17.0	12.6	6.2	5.8	5.4	13.3	14.0	62.1	220.4
04-99	T45TS NACES P3I	9.5	0.1									9.7
11-02	Improved Directional Control	2.5	1.2	1.0	0.7							5.4
03-03	Engine Surge	1.1	4.5	3.5	3.3	3.3	4.0	4.0	4.1	4.2	3.9	35.9
10-04	T45TS GPS		1.1	1.2	1.5	1.4	1.5	1.6	1.1	0.9	2.0	12.3
17-04	T45 RAMP/AVIONICS OBSOLESCENCE		2.7	21.3	24.8	23.4	27.6	22.2	15.8	15.8	7.3	161.0
02-06	SYNTHETIC RADAR				7.0	4.5	3.9	0.3				15.7
Total		86.1	20.6	44.0	50.0	38.9	42.9	33.6	34.3	34.9	75.3	460.4

Note: Totals may not add due to rounding.

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: T45TS Correction to Deficiencies (OSIP 8-95)

MODELS OF SYSTEMS AFFECTED: T-45 Training System (T45TS) | TYPE MODIFICATION: Safety, Reliability, Increased Service Life, Imroved Mission Capabilities

DESCRIPTION/JUSTIFICATION:

Ejection Seat Handle MB-9155
Modification will standarize ejection seat firing handle to enhance aircrew safety. Incoporation will lower the seat bucket firing handle assembly to eliminate interference with flight controls. Installation of this ECP is in response to a F-18 mishap report that documented a safety deficiency and proposed recommendations relating to incidents of inadvertent ejection.

Uncommanded Gear Extension: MDA-T45TS-TBDs
Modification will increase travel of the landing gear control interconnect cable, increase cable friction, and change the gear selector valve actuation signal to only when the handle is in the full up or full down position. Installation of this ECP is in response to a T45TS Engineering Investigation that documented a deficiency and proposed recommendations relating to incidents of uncommanded landing gear extensions.

Ground Training Systems: MDA-T45TS-TBDs
Updates to the T-45 aircraft simulator to match evolving aircraft flight characteristics and software and academics enhancements to improve training capabilities. The following Ground Trainer Systems ECP's are included in the controls: Flap Actuation Simulators, Touch and Go Engine Surges, current and future Simulator Upgrades.

Structural ECPs
Modifications will incorporate changes to improve structural details to increase aircraft service life beyond 14,400 flight hours, per initial design specifications, to a projected 21,000 flight hours. During FSD testing of the T45 aircraft it was determined that incorporation of redesigned components applicable to the critical load paths will significantly increase the service life of the aircraft. This structural portion of this OSIP effects several structural components including, but not limited to: Wing Dolly, SS 02 Monitor Bracket, Horizontal Stabilators, Frame 24 Crossbeams Lugs, Wing Leading Edge Redesign, Frame 29 Lower Flange, Uplock Beam Forward Attach, Slat Track Rib 5 Downstop Bolt, Frame 28/32 Boundary/Vert Fin, Inlet Close-Out Fuel, Airframe Engine Mount, Frame 21 Structure, MLG Bay Tilted & Fasteners, Longitudial Systems Viscous, Frame 20 Structures, Frame 12 Vertical Splice, NLF Trunnion Beam, Slat Actuator Fitting Angle, Structure Life Improvement, Speed Brake Upgrade, Engine Mount Link Option, Stabilizer Back-Up Structures, Fuselage/Frame 10 Door, and Fin Bracket Lever Box Assembly.

Airframe ECP's
Modifications to the airframe other than structural defficiencies are also required to ensure safety of flight, aero-performance and maintainability to enable satisfactory PTR levels. This Airframe OSIP affects several airframe components and their sub-assemblies including, but not limited to: front, center and aft fuselage components, landing gear, tail cone, wing, horizontal and vertical control surfaces, flaps, canpoy/windscreen, hydraulic system, oxygen system, electrical system, fuel system, instrumentation systems, environmental controls, communications, navigation and emergency systems.

Avionics
Modifications to the Avionics will be required to update the Display unit, Heads Up Display, and Global Positioning System and Inertial Navigation Assembly to enhance effectiveness of pilot training and avoid obsolescence. The following ECP's are part of the Avionics package of the aircraft and include: Air Data Recorder Upgrade (current and future), Gina Updates, Display processor upgrades (also known as Advanced Signal Data Display Unit Computer, Signal Data Computer and Airborne Data Recorders started in 1999), Almanac Loading System upgrades, and GPS Upgrades.

Engines
Modifications will increase engine service life and correct safety related issues. These modifications include High Pressure Fuel Pump, Front Combustion Liner, High Pressure Compressor Ladder Assembly, Low Pressure Nozzle Guide Vanes, High pressure Nozzle Guide Vanes and a modification to address engine surge/compressor stall. Modification will increase the overhaul interval from 1000 starts to 2000 starts. This also addresses a T45TS Engineering Investigation that documented a deficiency with the combustor liner and oil galley. The Engine ECP's include the Dual Boost Pump, Low Pressure Nozzle Guide Vanes, High Pressure Nozzle Guide Vanes, HP Fuel Pump, Front Combustion Liners, Gas Turbine Starters, Engine Rising Idle, Engine Surges, and the Engine Ladder Assembly.

T45TS Correction to Deficiencies (OSIP 08-95)

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
Ejection Seat Handle MB-9155	112	.3																				
Uncommanded Gear Extension	35	.7																				
Ground Training Systems TBD's	49	2.3																				
Structural ECP's	890	20.9	26	.3	24	.7	150	2.0	80	.7												
Avionics	297	1.8	56	1.7	116	2.4	60	1.0	30	.5												
Airframe ECP's	15	.5	21	.9	39	3.4	150	1.5	80	.8												
Engines	536	4.5	52	.4	141	2.1	120	1.0	80	.8												
Installation Kits N/R		6.2		.9		.1		.1														
Installation Equipment																						
Ejection Seat Handle MB-9155		.2																				
Uncommanded Gear Extension		.1																				
Ground Training Systems TBD's		.6																				
Structural ECP's		.4																				
Airframe ECP's						.5		.9		.3												
Avionics		1.1		.2		.1																
Engines		2.0																				
Installation Equipment N/R		2.0				*																
Engineering Change Orders																						
Data		.8		*		*																
Training Equipment		3.1		4.0		*																
Support Equipment		.8		.1		*																
ILS																						
Other Support		1.1				*																
Installation Cost	1,894	23.5	193	2.5	270	7.6	425	6.1	290	3.1												
TOTAL PROCUREMENT	**1,934**	**73.0**	**155**	**11.0**	**320**	**17.0**	**480**	**12.6**	**270**	**6.2**												

Notes:
1. Totals may not add due to rounding.
2. *indicates amounts less than 51K

Exhibit P-3a

MODELS OF SYSTEM AFFECTD: **T45TS** MODIFICATION TITLE: T45TS Correction to Deficiencies (OSIP 08-95)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **"I" and "D" Level Installation: Contractor Field Modification Team-Separate Contract**

ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2004: N/A FY 2005: N/A FY 2006: N/A FY 2007: N/A

DELIVERY DATE: FY 2004: N/A FY 2005: N/A FY 2006: N/A FY 2007: N/A

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**	Qty	$	Qty	**$**	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits	1,894	23.5	40	0.5																		
FY 2004 ( ) kits			153	2.0	2	0.1																
FY 2005 ( ) kits					268	7.5	52	0.8														
FY 2006 ( ) kits							373	5.3	107	1.1												
FY 2007 ( ) kits									183	2.0												
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	**1,894**	**23.5**	**193**	**2.5**	**270**	**7.6**	**425**	**6.1**	**290**	**3.1**												

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	1894	48	48	48	49	67	67	67	69	106	106	106	107	72	73	72	73								
Out	1894	48	48	48	49	67	67	67	69	106	106	106	107	72	73	72	73								

	FY 2010				FY 2011				To Complete	TOTAL	
	1	2	3	4	1	2	3	4			
In											
Out											

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: T-45A NACES P3I (Navy Aircrew Common Ejection Seat Pre- Planned Product Improvement) (OSIP 04-99)

MODELS OF SYSTEMS AFFECTED: T-45A NACES GFE EJECTION SEATS | TYPE MODIFICATION: PS SAFETY

DESCRIPTION/JUSTIFICATION:

An average of 15 Naval Aircrew fatalities occur each year from in-flight mishaps. Nearly half result from the seat ejecting crewmembers into the ground or water at low altitude and adverse attitudes. Because of their lighter throw weight, women are particularly susceptible to this and other ejection risks. A total of 137 aircraft (2 seats per A/C) and 6 trainers will be retrofitted. The NACES P3I program is divided into three phases of development and upon completion of each phase, existing aircraft seats will be modified with NACES retrofit kits.

Phase I - Current technology improvements to increase cockpit accommodation and reduce injury risk for all aircrew.

Phase II - Propulsion stability control to reduce the risk of major injury to less than 5% up to 600 knots.

Phase III - Stability control and surface avoidance capability for low altitudes, adverse attitudes, and out of control ejections.

Procurement of Phase I kits have been priced and are represented by this OSIP. Procurement costs for Phase II and III have not been determined.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Contract awarded third quarter FY 1997 for development and testing. ECP approval 19 May 1999. Contract awarded August 1999.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits	258	7.3																				
Installation Kits N/R		0.7																				
Installation Equipment																						
Installation Equipment N/R																						
Engineering Change Orders																						
Data		0.1																				
Training Equipment	6	0.2																				
Support Equipment		*																				
ILS																						
Other Support																						
Interim Contractor Support																						
Installation Cost	196	1.3	68	0.1																		
TOTAL PROCUREMENT	**264**	**9.5**		**0.1**																		

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **T-45A NACES GFE EJECTION SEATS** MODIFICATION TITLE: T-45A NACES P3I (OSIP 04-99)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Contractor Installations**

ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 5 Months

CONTRACT DATES: FY 2004: FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits	**196**	1.3	**68**	**0.1**																		
FY 2004 ( ) kits																						
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	**196**	**1.3**	**68**	**0.1**																		

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	196	17	17	17	17																				
Out	196	17	17	17	17																				

	FY 2010				FY 2011				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										
Out										

Exhibit P-3a Individual Modification

MODIFICATION TITLE: T45TS IMPROVED DIRECTIONAL CONTROL (OSIP 11-02)

MODELS OF SYSTEMS AFFECTED: T-45 TRAINING SYSTEM (T45TS) TYPE MODIFICATION: Safety

DESCRIPTION/JUSTIFICATION:

Loss of Directional Control during the high speed ground rollout has resulted in six Class A T-45 mishaps. The proposed modification will significantly improve the Ground Handling characteristics by improvements such as: Providing yaw rate feedback to the nosewheel steering system and the (SASS) Stability Augmented Steering System. This improvement will make external forces less influential on yaw rates, and provide for lower susceptibility to pilot induced oscillations.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:
Non-recurring engineering efforts associated with this modification were conducted during FY02. Kit procurement commenced in FY03 and installations began in FY05.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
PROCUREMENT																						
Installation Kits	96	1.5	72	1.2																		
Installation Kits N/R																						
Installation Equipment		0.5																				
Installation Equipment N/R																						
Engineering Change Orders																						
Data		0.4		0.1																		
Training Equipment	17	*																				
Support Equipment		0.1																				
ILS																						
Other Support																						
Interim Contractor Support																						
Installation Cost					96	1.0	72	0.7														
Total Procurement	**96**	**2.5**	**72**	**1.2**		**1.0**		**0.7**														

Notes:
1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: T-45 TRAINING SYSTEM (T45TS) MODIFICATION TITLE: T45TS IMPROVED DIRECTIONAL CONTROL (OSIP 11-02)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Contractor Field Mod Team**

ADMINISTRATIVE LEADTIME: 4 Months PRODUCTION LEADTIME: 18 Months

CONTRACT DATES: FY 2004: Jul-04 FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: Apr-06 FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits					96	1.0																
FY 2004 ( ) kits							72	0.7														
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL					**96**	**1.0**	**72**	**0.7**														

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In								24	24	24	24	18	18	18	18										
Out								24	24	24	24	18	18	18	18										

	FY 2010				FY 2011				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										
Out										

Exhibit P-3a — Individual Modification

MODIFICATION TITLE: T45TS ENGINE SURGE MITIGATION (OSIP 03-03)

MODELS OF SYSTEMS AFFECTED: T-45 TRAINING SYSTEM (T45TS) TYPE MODIFICATION: Safety

DESCRIPTION/JUSTIFICATION: Engine Surge: T-45 engine surge is a critical safety concern for a single engine aircraft with over 195 surge events documented. Kits include modifications to airframe, engine, and fuel control system.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Funding was provided to correct T-45 F405 engine surge. Non- Recurring Engineering efforts started in FY03. Kit deliveries & installs started in FY05.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits			24	2.5	24	2.5	24	1.7	24	1.7												
Installation Kits N/R		1.0		2.0																		
Installation Equipment																						
Installation Equipment N/R																						
Engineering Change Orders																						
Data		0.1																				
Training Equipment																						
Support Equipment																						
ILS		*																				
Other Support																						
Interim Contractor Support																						
Installation Cost					12	1.0	24	1.6	24	1.6												
Total Procurement		**1.1**	**24**	**4.5**	**24**	**3.5**	**24**	**3.3**	**24**	**3.3**												

Notes:
1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: T-45 TRAINING SYSTEM (T45TS) MODIFICATION TITLE: T45TS ENGINE SURGE MITIGATION (OSIP 03-03)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **TBD**

ADMINISTRATIVE LEADTIME: 5 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2004: Feb-04 FY 2005: Feb-05 FY 2006: Feb-06 FY 2007: Feb-07

DELIVERY DATE: FY 2004: Feb-05 FY 2005: Feb-06 FY 2006: Feb-07 FY 2007: Feb-08

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits																						
FY 2004 ( ) kits					12	1.0	12	0.8														
FY 2005 ( ) kits							12	0.8	12	0.8												
FY 2006 ( ) kits									12	0.8												
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL					**12**	**1.0**	**24**	**1.6**	**24**	**1.6**												

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In							4	4	4	6	6	6	6	6	6	6	6								
Out							4	4	4	6	6	6	6	6	6	6	6								

	FY 2010				FY 2011				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: T45TS Global Positioning System (OSIP10-04)

MODELS OF SYSTEMS AFFECTED: ANALOG COCKPIT | TYPE MODIFICATION: PS SAFETY

DESCRIPTION/JUSTIFICATION: Congressional requirement that all DoD aircraft be capable of navigating via Global Positioning System Inertial Naviation Assembly (GINA) to support T45T's mission to train the next generation of warfighters in the use of INS, GPS, and GPS/INS hybrid systems by the end of year 2005. A retrofit program will incorporate GPS in the existing Analog aircraft. There are currently 73 aircraft that will be retrofitted. Kits in 2010 and 2011 address obsolescence issues for the

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Kit deliveries and installations will commence in FY06.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
GPS Kits			12	1.1	12	1.0	12	1.0	12	1.0												
Obsolescence Kits																						
Installation Kits NR																						
Installation Equipment																						
Installation Equipment NR																						
Engineering Change Orders																						
Data						0.1		*														
Training Equipment																						
Support Equipment																						
ILS						0.1		0.1														
Other Support																						
Interim Contractor Support																						
Installation Cost							12	0.4	12	0.4												
Total Procurement			**12**	**1.1**	**12**	**1.2**	**12**	**1.5**	**12**	**1.4**												

Notes:
1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: ANALOG COCKPIT

MODIFICATION TITLE: T45TS GPS (OSIP10-04)
GPS/Avionics Obsolescence

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Contractor field mod team**

ADMINISTRATIVE LEADTIME: 4 Months

PRODUCTION LEADTIME: 21 Months

CONTRACT DATES: FY 2004: Jan-04 FY 2005: Jan-05 FY 2006: Jan-06 FY 2007: Jan-07

DELIVERY DATE: FY 2004: Oct-05 FY 2005: Oct-06 FY 2006: Oct-07 FY 2007: Oct-08

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits																						
FY 2004 ( ) kits							12	0.4														
FY 2005 ( ) kits									12	0.4												
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL							**12**	**0.4**	**12**	**0.4**												

Notes:
1. Quantity totals include trainers

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In										3	3	3	3	3	3	3	3								
Out										3	3	3	3	3	3	3	3								

	FY 2010				FY 2011				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: T45 RAMP/AVIONICS OBSOLESCENCE (17-04)

MODELS OF SYSTEMS AFFECTED: T-45 TRAINING SYSTEM (T45TS) TYPE MODIFICATION: PS SAFETY

DESCRIPTION/JUSTIFICATION: T45TS is facing critical obsolescence/performance issues. Components of various avionics boxes will not be supportable as a result of Diminishing Manufacturing Source issues that result in part obsolescence or supplier mortality. RAMP will resolve obsolescence issues and add two multi-function displays (MFDs) per cockpit, mission display processor (MDP), associated cockpit controls, and a 1553 digital bus, integrating them with the existing head-up display (HUD), the airborne data recorder (ADR), and a separately procured Global Positioning System/Inertial Navigation (GINA).

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: FY03 provided funding (OSIP 16-96) for 1 simulator conversion and OSIP 17-04 provided FY04 funding for DMS/obsolescence risk mitigation efforts.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
DP/MDP Kits			2	1.6																		
RAMP/Obsolescence Kits					12	2.1	12	2.2	12	2.2												
Installation Kits NR				0.7		0.7		0.3														
Installation Equipment			2	0.3	12	10.2	12	10.7	12	11.3												
Installation Equipment NR																						
Engineering Change Orders																						
Data				*		0.9		0.5														
Training Equipment					2	7.3	2	7.3	2	7.3												
Support Equipment						*		0.2														
ILS						*		0.2														
Other Support								0.6														
Interim Contractor Support																						
Installation Cost							16	2.7	14	2.6												
Total Procurement			**2**	**2.7**	**14**	**21.3**	**14**	**24.8**	**14**	**23.4**												

Notes:
1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: T45TS

MODIFICATION TITLE: T45 RAMP/AVIONICS OBSOLESCENCE (17-04)
DP & MDP/RAMP/AVIONICS OBSOLESCENCE

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Contractor field mod team**

ADMINISTRATIVE LEADTIME: 3 Months

PRODUCTION LEADTIME: 24/12 Months

CONTRACT DATES: FY 2004: Dec-03 FY 2005: Dec-04 FY 2006: Dec-05 FY 2007: Dec-06

DELIVERY DATE: FY 2004: Dec-05 FY 2005: Dec-05 FY 2006: Dec-06 FY 2007: Dec-07

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits																						
FY 2004 ( ) kits							2	0.3														
FY 2005 ( ) kits							14	2.4														
FY 2006 ( ) kits									14	2.6												
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL							**16**	**2.7**	**14**	**2.6**												

Notes:
1. Quantity totals include trainers

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In										4	4	4	4	2	4	4	4								
Out										4	4	4	4	2	4	4	4								

	FY 2010				FY 2011				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										
Out										

Exhibit P-3a — Individual Modification

MODIFICATION TITLE: Synthetic Radar Training (OSIP 02-06)

MODELS OF SYSTEMS AFFECTED: T45TS — TYPE MODIFICATION: PS Safety

DESCRIPTION/JUSTIFICATION: With the T-2/T39 divesture in 2006 and 2013, the training command cannot complete UMFO training. No new Type Model Series will be developed to pickup this requirement, as a result, the T-45 will modify 30 aircraft to incorporate Synthetic Radar Training into curriculm.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: FY06 provides funding for NRE and 1 Kit, FY07/08 provides funding for NRE and 15/14 kits.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
Synthetic Radar							1	0.9	15	2.3												
Installation Kits N/R																						
Installation Equipment																						
GEM 4 Module							1	*	15	0.1												
IFF Mode S							1	*	15	0.5												
Joint Tactical Radio Systems							1	0.1	15	1.3												
Installation Equipment N/R								5.5														
Engineering Change Orders																						
Kit ECO																						
Equip ECO																						
Data								0.1														
Training Equipment								0.3														
Support Equipment								0.1														
ILS								*														
Other Support										0.3												
Interim Contractor Support																						
Installation Cost									1	0.1												
Total Procurement							**1**	**7.0**	**15**	**4.5**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **T45TS** MODIFICATION TITLE: Synthetic Radar Training

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Contractor Field Mod Team**

ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2004: FY 2005: FY 2006: Mar-06 FY 2007: Mar-07

DELIVERY DATE: FY 2004: FY 2005: FY 2006: Mar-07 FY 2007: Mar-08

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits																						
FY 2004 ( ) kits																						
FY 2005 ( ) kits																						
FY 2006 ( ) kits									1	0.1												
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL									**1**	**0.1**												

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In															1										
Out															1										

	FY 2010				FY 2011				To	Total
	1	2	3	4	1	2	3	4	Complete	
In										
Out										

Exhibit P-40, BUDGET ITEM JUSTIFICATION							DATE: **February 2005**					
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy/APN-5 Aircraft Modifications**							P-1 ITEM NOMENCLATURE **Power Plant Changes**					
Program Element for Code B Items:							Other Related Program Elements					
	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
QTY		A										
COST (In Millions)	**306.6**	A	23.4	23.7	26.3	24.5	22.3	21.9	21.2	21.4	20.5	511.7

This line item funds modifications to all in-service aircraft engines. Power Plant Changes are required throughout the service life of each aircraft to correct flight deficiencies and improve operational readiness while reducing engine operating costs. This program finances the procurement and installation of retrofit kits for all Navy and Marine Corp aircraft engines and related propulsion hardware such as propellers, starters and transmission. The overall goal of the modifications budgeted in FY 2006 is to continue modification efforts previously initiated on the engines for the F-14, AV-8B, S-3, H-60, E/A6-B, A-6, H-2, AH-1W, T-38, F-5, F/A-18E/F, H-46, H-3, C-2, E-2, A-4, H-53, MH-60, C-130, F/A-18C/D, T-2, P-3, VH60, UH1N,T-45, F16 and V22 aircraft.

The following depicts the current funding levels budgeted and programed for Power Plant Changes:

(TOA, $ in Millions)

OSIP No.	Description	Prior Years	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
N/A	Power Plant Changes	306.6	23.4	23.7	26.3	24.5	22.3	21.9	21.2	21.4	20.5	**511.7**
	Total	**306.6**	**23.4**	**23.7**	**26.3**	**24.5**	**22.3**	**21.9**	**21.2**	**21.4**	**20.5**	**511.7**

Note: Totals may not add due to rounding.

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: Power Plant Changes (OSIP: N/A)

MODELS OF SYSTEM AFFECTED: All Active In-Service Navy and Marine Corps Aircraft TYPE MODIFICATION: Approx. 80% Safety, 20% Reliability

DESCRIPTION/JUSTIFICATION:

This program corrects aircraft flight safety deficiencies, improves operational fleet readiness and reduces engine cost of ownership by incorporating approved power plant changes. Power plant changes are required throughout the aircraft service life as the engine ages and operationally revealed deficiencies are discovered, researched, and solutions engineered. The Component Improvement Program (CIP) which is funded in RDT&E,N develops and demonstrates engineering solutions to these deficiencies and through the Engineering Change Proposal (ECP) process, initiates power plant changes. The power plant change program procures the necessary power plant change retrofit kit, its installation, and technical data. This program provides retrofit kits for all Navy and Marine aircraft engines and propulsion related hardware such as propellers, starters, generators, and transmissions. Reliability Improvements are designed to increase Mean Time Between Failure and Mean Time Between Engine Removal by 30% on average and are expected to generate savings/cost avoidance in excess of $50M annually.

F110 Engine Program F-14 B/D

ECP T130 - Master Chip Detector Relocation moves the MCD to an area which is easily accessible through the daily inspection doors. The redesigned MCD has an improved capture efficiency, and is less prone to leakage.
ECP T144 - LPT Stage 1 Shroud Life Improvement to provide a shroud configuration that will consistently achieve a 4000 TAC inspection interval. The assembly will eliminate ingestion of flow path air and add a disassembly feature to the shrouds.
ECP T139 - Fuel Boost Pump Durability Improvement introduces a new Fuel Boost Pump with an increased orifice diameter. This change will prevent the oil supply source from being lost due to contamination in the oil system.
EMSP Improvements

F402 Engine A/V-8B:

ECP 3709C2 - IGVC Redesigned Bushings
ECP 3763 FMU Mod - Safety modification package to the Fuel Metering Unit which will supply a high-pressure fuel supply to the hydro-mechanical backup unit.
ECP 3784 Engine Wiring Harness- Encapsulation of main engine harness to prevent foreign material penetration (sand, dust, moisture) into the harness and resultant loss of signal quality
ECP 3782 ARMCO Liner/LPC Rear Lip- Fan case liner moves forward and requires a more robust attachment scheme. The LPC fan case rear lip cracks and can fall into the gas path. The redesign fixes the design deficiency.
ECP 3683 ECS &EMS P3 Pipe- Provides revisions to the environmental control system and engine monitoring system P3 signal pipe and associated clippings to accommodate earlier redesign of the P3 transducer mount.
ECP 3722 Bleed Pipe Extension- Increases sleeve length between stage 3 bleed pipe and heat exchanger to accommodate installation difficulties.
ECP 3729 Revised Attachment JPT- Provides revisions to JPT harness with revised attachment nuts to alleviate clearance problems.
ECP 3733 Curvic Coupling Corrosion - Introduces corrosion protection to the curvic coupling to eliminate corrosion attack and resultant reduction in component life.
ECP 3739 NGV Locating Ring - Introduces an improved outer high pressure stage 1 turbine nozzle guide vane locating ring to alleviate assembly problems.
ECP 3744 #2 BRG Seal Housing - Introduces an elongated bore shape to the #2 bearing to correct a design deficiency.
ECP 3748 #1 BRG Nut Channel - Revised material and plating the number 1 bearing to alleviate design deficiency.
ECP 3771 HP Rotor Nut Revision - Revised high pressure rotor center front nut and cupwasher to improve structural weakness.
ECP 3787 DECU Hybrid Circuits - Revised T1 thermocouple hybrid circuits to the DECU for improved data accuracy.
ECP 3794 FMU Shielded Bearings- Revised fuel metering unit shielded bearings to the stepper motor assembly to alleviate design deficiency.
ECP 3797 FMU Bonded Shells- Revised bonded electrical connector shells to the fuel metering unit to improve durability.
ECP 3798 PLAU Bonded Shells - Revised bonded electrical connector shells to the power lever angle unit to improve durability.
ECP 3800 P3 Transducer New Mount - New vibration isolation mount for the P3 transducer to prevent premature failures of the transducer.
ECP 3806 Hot Nozzle Cracking - Redesign of the hot nozzles to minimize or prevent the current problem of cracking and part attrition
EVICS
ECP TBD Revised Water Injection Pipe Runs
ECP TBD MOD Bottom Heat Shield
ECP TBD FMU HP Pump PRV
ECP TBD LPC Stage 1 Damping Foil
ECP TBD Mod to Accept EVICS
ECP TBD SRD Combfuel nozzle
ECP TBD SRD Control Kits

F404 Engine F/A 18

ECP E78 Main Fuel Control Selector Valve
ECP A27 VEN Position Transmitter Improvement
ECP C67 MFC Manifold Redesign
ECP E70 T1 Caution Capacitor Improvement
ECP E91 Improved MFC Ratio Boost Pston
ECP F15 Front Frame Transducer Bracket
ECP C-75 MFM Kits
ECP E-83 Mod Turbine Kits
ECP TBD Mech. System Mod Kits

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: Power Plant Changes (OSIP: N/A)

MODELS OF SYSTEM AFFECTED: All Active In-Service Navy and Marine Corps Aircraft TYPE MODIFICATION: Approx. 80% Safety, 20% Reliability

J52Engine EA 6/B, A-6, A-4:
ECP 95XA013 Redesigned Pressure Ratio and Compressor Slator Controls reduce the susceptbility that can cause friction between the shank and the reset diaphragm.
ECP CP93XA069 Thermal Barrier Coated (TBC) 1st Stage Turbine Slator Vane Assembly will increase the durability of the vanes. This change is also required for a 1500 hr engine build.
ECP TBD 4 1/2 Bearing Redesign
ECP TBD Main FC Mod Kits
ECP TBD Turbine Mod kits

T58 Engine H-3, H-46
ECP TBD Stage 3 Nozzle Antirotation
ECP TBD Overspeed Switch
ECP TBD High Temp O-rings
ECP TBD Flow Divider Imp
ECP 58C-24 Small Features Imp
ECP TBD Stage 1 Nozzle Imp
ECP TBD #1 Tabbed/Anti-Rot Bearings
ECP TBD #2 Engine Seal Puller
ECP 58K-23 AGB Chip Detector
ECP TBD Mech Systems Mod kits

TF34 Engine S-3:
ECP TF34-JAX-001 Reconcile discrepancies contained in ECP 23EG5504, Variable Geometry System Improvements, ECP 23EG5512 Compressor Arm Retention, and ECP 23EG5529 for Improved Compressor Abradable Coating and combine in the correct sequence the improvements into one ECP. The combined approach will streamline incorporation and reduce total maintenance actions including replacement of separate right and left VG linkages with a single improved linkage; installation of VG linkage retaining hardware; and incorporation of an improved stator coating. Incorporation of these modifications will improve readiness.

T64 Engine H-53:
ECP 64E-55 Improved Single Ring Carbon Seals at the Nos 2,3, and 4 bearing positions with more durable single-ring seals.
ECP T64 Improved Main Fuel Control
ECP 64F-23 Combustion Liner Anti Rotation
ECP TBD TiN Coating
ECP TBD PT Over Speed Switch
ECP TBD T-62T-27 Thermocouple Relay
ECP TBD Comp Rear Spool Oil Drain Holes
ECP TBD High Temperature Wolf Gasket
ECP 64T-23 Lube Filter Bypass Valve Seat
ECP T-62T-27 Elbow
ECP TBD Reliability Centered Maintenance
ECP TBD Anti-Leak Check Valve
ECP TBD Build Spec Review Minor Design Improv.
ECP TBD Nozzle Support Ring Wear Coating
ECP TBD Rotating Air Seal Wear Coating
ECP TBD Other BSR Major Design Improv.
ECP TBD Fuel Nozzle Improvement
ECP TBD Compressor Blade Retention
ECP TBD Redesigned #3 Bearing Support
ECP TBD Fuel System Improvement
ECP TBD Oil System Improvement
ECP TBD Reliability Centerd Maintenance
ECP TBD PT Rotor Improvement
ECP TBD NGB Pulleys and Belts
ECP TBD APU Air Inlet Housing
ECP TBD APU Inlet Filter
ECP TBD Arc Fault Circuit Breaker Testing
ECP TBD Off-Board Wiring Diagnostics
ECP TBD On-Aircraft Wiring Diagnostics
ECP TBD GCU Modernization Program

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: Power Plant Changes (OSIP: N/A)

MODELS OF SYSTEM AFFECTED: All Active In-Service Navy and Marine Corps Aircraft TYPE MODIFICATION: Approx. 80% Safety, 20% Reliability

T700 Engine H-2, H-60, AH-1
ECP 136R2 Nr 2 Bearing Housing and Damper Improvement provides an Output Drive Assembly (ODA) with improved housing, damper and spline lubrication for the No two bearing housing.
ECP 122 Stage 3 Rotor Ring adds a stage three containment ring to the power turbine module on all T700 GE 401C and T700-GE-701C engines to compensate for the increase in temperature when these engines operate in aircraft equipped with infrared suppressors.
ECP 123 Stage 1 Blade Tip Corrosion Resistance will incorporate an improved tip material to preclude deterioration.
ECP 125 HydroMechanical Unit (HMU) Improvements prevent internal contamination in the Woodward Governor HMU
ECP 126 HMU O Ring - Replaces the Noton O-Ring in the Hamilton Standard HMU with a Fluorocarbon based O-Ring to prevent fuel leakages.
ECP T700 Turbine Blade Redesign
ECP PPC 16 Rev A Blade Damper
ECP H60-001 UNS-401C DECU Update
ECP T700 TBD VARIOUS
ECP TBD Compressor System Mod kits
ECP TBD Combustor Mod kits
ECP TBD Combustor Liner

T400 Engine AH1W, UH1N
ECP TBD Bearing Pressure Oil Tube Assy
ECP TBD Improved Air Inlet Screen
ECP TBD Non Asbestos T5 Jumper Leads
ECP PWC-5232 Sprag Cluth Assy
ECP TBD Improved P3 Filter Bowl Housing
ECP TBD Improved No. 5 & 8 Cup Washers
ECP TBD Improved No. 10 Bearing

T56 Engine P-3, C-2, E-2, C-130
ECP 2132 Dummy Plug Redesign (SIII)
ECP 2132 Dummy Plug Redesign (IV)
ECP 2136 T-56-A-427-002 S/V Turbine Blade Rework
ECP 2141 T-56-A-427-003 Polished Swirl Plate
ECP 56-A-427-001 Fuel Nozzle Purge
ECP 2129R1 Governors
ECP TBD SIV Dummy Plug Redesign
ECP 2143 Dome Shell Seal Kit
ECP 2122B EMS/EAU Software
ECP 2131 DETC Omnibus Change
ECP 2134 Diaphragm for RGB
ECP 2102 Rear Engine Mount
ECP 2115 TD Amp Harness
ECP/AEM 104491 14 Stage Wheel
ECP 2013R1 Custom 450 Comp Vane
ECP 2127-3 Micron Scavenge Oil Filter
ECP TBD Assy Mod Kits
ECP 2124 MFC Omnibus Change
ECP 2138 Wiring Mod Kits

F414 Engine F/A18-E/F
ECP TBD Combustor Flameout
ECP C-10 HPC Durability and Performance
ECP C-09 MFM Kits
ECP TBD MFC Bracket Rework
ECP TBD Transfer Lever Arm
ECP TBD HPT Nozzle Retaining Ring
ECP TBD A-sump Tube Bracket
ECP A-02 A/B Case Aft Ring Hardcoat
ECP C-06 Rework Balnace Piston Vent
ECP TBD VEN Start Line Cracking
ECP TBD Control System Mod kits
ECP TBD IGV Mod kits
ECP TBD Gas Path Mod kits
ECP TBD A/B Mod Kits

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: Power Plant Changes (OSIP: N/A)

MODELS OF SYSTEM AFFECTED: All Active In-Service Navy and Marine Corps Aircraft

TYPE MODIFICATION: Approx. 80% Safety, 20% Reliability

F405 Engine T-45
ECP TS-234 Rising Idle Modification
ECP TBD Compressor Improved Coating
ECP TBD LP Stator Coating
ECP TBD Surge Modification Kits
ECP TBD Omega Seals
ECP TBD Electrical Harness
ECP TBD Module 02 Coating
ECP TBD HVC Vane Coating
ECP TBD Modules 3, 10, 11 Coatings
ECP TBD LPNGV
ECP TBD COSSI Drum

J85 Engine F-5, T-2, T-38
ECP 85S-99 Carbide VEN Leafs
ECP 85N-55 Improved Ignition
ECP TBD Turbine Improvements
ECP TBD Fuel Control Improvement
ECP TBD Improved Ignitor System Components
ECP 85E-106 High Temperature Clamps

F100 Engine F-16
ECP TBD Compressor Safety Changes
ECP TBD Turbine Safety Changes

T406 Engine V22
ECP TBD Gear Box Modification
ECP TBD Turbine System Modification

Exhibit P-3a

FINANCIAL PLAN (TOA, $ in Millions): CLASSIFICATION:

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E		269.615		47.523		51.962		68.810		58.095												
PROCUREMENT																						
Installation Kits																						
F110 Engine (F-14 B/D)																						
ECP T086 - Vented IDG Ejector Valve	337	0.474																				
ECP T130 - Master Chip Detector Relocation	210	1.345	60	0.404																		
ECP T144 - LPT Stg 1 Shroud Improvement	240	0.992	30	0.131																		
ECP T139 - Fuel Boost Pump Mod	240	0.505	30	0.070																		
ECP T151 - Fuel Nozzle Moeller Fittings	270	0.630																				
EMSP IMPROVEMENTS	150	0.382	79	0.210																		
PYROMETER IMPROVEMENTS	210	0.544																				
ECP-T158- FRONT FRAME DMPER MIGRA R	270	0.394																				
T 2.5 SENSOR BRAZEJOINT IMPROVEMENT	480	0.096																				
CMC FLAMEHOLDER	270	1.112																				
T155 MEC IMPROVEMENT	153	0.153																				
F402 Engine (A/V-8B)																						
EVICS			2	0.245	2	0.240																
ECP TBD Revised Water Injection Pipe Runs			3	0.024																		
ECP TBD MOD Mod Bottom Heat Sheild			4	0.024																		
ECP TBD FMU HP Pump PRV			7	0.130	7	0.130																
ECP TBD LPC Stage 1 Damping Foil			10	0.260	10	0.260																
ECP TBD Mod to Accept EVICS			8	1.049	13	1.300	13	1.790														
ECP 3606 - INCO 718 BOLT	91	0.032																				
ECP 3709C2 - IGVC Redesigned Bushings	187	0.391	25	0.078																		
ECP 3763 FMU Mod	75	0.942	13	0.300																		
ECP 3784 Encapsulated Wiring harness	295	1.741	18	0.205	18	0.205																
ECP 3782 ARMCO Liner/LPC Rear Lip	114	0.022	50	0.005																		
ECP 3683 FCS & EMS P3 Pipe	89	0.042	50	0.040																		
ECP 3722 Bleed Pipe Extension	89	0.041	50	0.025																		
ECP 3729 Revised Attachment JPT	89	0.083	50	0.050																		
ECP 3733 Curvic Coupling Corrosion	91	0.286	25	0.100																		
ECP 3739 NGV Locating Ring	93	0.297	25	0.100																		
ECP 3744 #2 BRG Seal Housing	97	0.092	50	0.050																		
ECP 3748 #1 BRG Nut Changes	97	0.092	50	0.050																		
ECP 3771 HP Rotor Nut Revison	89	0.036	50	0.025																		
ECP 3787 DECU Hybrid Circuits	89	0.387	25	0.125	25	0.125	25	0.125	25	0.125												
ECP 3794 FMU Shielded Bearings	89	0.231	50	0.150																		
ECP 3797 FMU Bonded Shells	89	0.108	50	0.050																		
ECP 3798 PLAU Bonded Shells	113	0.218	38	0.050																		
ECP 3800 Transducer	89	0.392	50	0.250																		
ECP 3806 Hot Nozzle Cracking	114	0.691	25	0.450	25	0.456	80	1.507	80	1.367												
ECP TBD SRD Comb/fuel nozzle							6	0.102	18	0.325												
ECP TBD SRD Fuel Control kits									10	0.250												

Exhibit P-3a

FINANCIAL PLAN (TOA, $ in Millions): CLASSIFICATION:

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
F404 Engine (F/A-18 C/D)																						
ECP E78 - Main Fuel Control Selector Valve	2,465	0.885	142	0.093																		
ECP A27 - VEN Position Transmitter Improvement	1,500	1.147	32	0.025	32	0.025																
ECP C67 - MFC Manifold Redesign	1,164	1.687	36	0.056	36	0.056																
ECP E70 - T1 Caution Capacitor Improvement	1,655	2.548	11	0.200	32	0.353																
ECP E91 - Improved MFC Ratio Boost Pston	700	1.054	69	0.080	69	0.080																
ECP F15 - Front Frame Transducer Bracket	1,100	0.551	25	0.011	25	0.011																
ECP C-75 MFM Kits			11	0.175	11	0.175																
ECP E-83 Mod Turbine Kits					7	0.425																
ECP TBD Mech. System Mod Kits							7	0.343	18	0.864												
J52 Engine (E/A-6B, A-6, A-4)																						
ECP 95XA013 - Redesigned Pressure Ratio & Compressor Stator Controls	190	0.456	38	0.110	38	0.124	38	0.124	38	0.124												
ECP CP93XA069 Thermal Barrier Coated 1st Stage Turbine Stator Vanes	74	2.582	17	0.750	35	1.550	18	0.800	18	0.749												
ECP 95XA275C1 J52 Engine Retrofit	14	1.507																				
ECP TBD 4 1/2 Bearing Redesign			270	0.300	90	1.000																
ECP TBD Main FC Mod Kits									100	1.096												
ECP TBD Turbine Mod kits									100	1.296												
T58 Engine (H-3, H-46)																						
ECP TBD Stage 3 Nozzle Antirotation			16	0.167																		
ECP TBD Overspeed Switch			100	0.150	121	0.182																
ECP TBD High Temp O-rings			300	0.127																		
ECP TBD Flow Divider Imp			16	0.075																		
ECP 58C-24 Small Features Imp			16	0.018																		
ECP TBD Stage 1 Nozzle Imp			16	0.019																		
ECP TBD #1 Tabbed/Anti-Rot Bearings			108	0.216	108	0.216	108	0.216														
ECP TBD #2 Engine Seal Puller			1	0.030																		
ECP TBD Mech Systems Mod kits																						
ECP 58K-23 AGB Chip Detector					25	0.376	12	0.188	7	0.106												
TF34 Engine (S-3)																						
ECP TF34 - JAX 001 - ENGINE COMPRESSOR STATOR CASE	322	0.399	24	0.051																		
T64 Engine (H-53)																						
ECP 64E-55 - Impr. Single Ring Carbon Seals	540	1.092	44	0.106																		
ECP T64 Improved Main Fuel Control			93	0.280																		
ECP 64F-23 Combustion Liner Anti Rotation			30	0.195			19	0.120	19	0.120												
ECP TBD TiN Coating			24	0.024																		
ECP TBD PT Over Speed Switch			50	0.075																		
ECP TBD T-62T-27 Thermocouple Relay			35	0.050																		
ECP TBD Comp Rear Spool Oil Drain Holes			35	0.018																		
ECP TBD High Temperature Wolf Gasket			100	0.024			498	0.250	989	0.500												
ECP 64T-23 Lube Filter Bypass Valve Seat			100	0.010																		
ECP T-62T-27 Elbow			100	0.050																		

Exhibit P-3a

FINANCIAL PLAN (TOA, $ in Millions): CLASSIFICATION:

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
ECP TBD Reliability Centered Maintenance			14	0.125	14	0.125	5	0.100	3	0.046												
ECP TBD Anti-Leak Check Valve			100	0.024																		
ECP TBD Build Spec Review Minor Design Improv.							5	0.100														
ECP TBD Nozzle Support Ring Wear Coating							125	0.255														
ECP TBD Rotating Air Seal Wear Coating							1000	0.505														
ECP TBD Other BSR Major Design Improv.							1000	0.205	1000	0.505												
ECP TBD Fuel Nozzle Improvement							250	0.234	420	0.395												
ECP TBD Compressor Blade Retention							150	0.100														
ECP TBD Redesigned #3 Bearing Support							330	0.500	600	0.787												
ECP TBD Fuel System Improvement							450	0.535	425	0.505												
ECP TBD Oil System Improvement							445	0.535	420	0.505												
ECP TBD Reliability Centerd Maintenance									500	0.202												
ECP TBD PT Rotor Improvement									328	0.535												
ECP TBD NGB Pulleys and Belts							60	0.600														
ECP TBD APU Air Inlet Housing							20	0.100	5	0.020												
ECP TBD APU Inlet Filter							100	0.500	80	0.400												
ECP TBD Arc Fault Circuit Breaker Testing									95	0.458												
ECP TBD Off-Board Wiring Diagnostics									85	0.458												
ECP TBD On-Aircraft Wiring Diagnostics									75	0.458												
ECP TBD GCU Modernization Program							20	0.100														
T700 Engine (H-2, H-60, AH-1)																						
ECP 700102C1 Stage 1 & 2 Turbine Dampers	26	0.973																				
ECP 136R2 - Nr.2 Bearing Housing & Damper Improvement	218	1.799	88	0.700	200	1.500	200	1.780	148	1.107												
ECP 122 Stage 3 Rotor Ring	882	1.848	209	0.928	175	0.539																
ECP 123 - Stage 1 Blade Tip Corrosion Resistance	359	5.362	37	0.928																		
ECP 124 - Exhaust Frame Drain Hole	800	0.820																				
ECP 125 - HydroMechanical Unit (HMU) Improvements	303	1.267	64	0.297	108	0.497	43	0.200														
ECP 126 - HMU O-Ring	391	1.594	88	0.400	176	0.792	36	0.180	78	0.306												
ECP T700 Turbine Blade Redesign			28	0.200	443	2.650	519	3.268	238	1.500												
ECP T700 TBD Combustor Liner							255	1.788	255	1.788												
ECP PPC 16 Rev A Blade Damper			150	0.870																		
ECP TBD Compressor System Mod kits							200	1.200	166	1.000												
ECP TBD Combustor Mod kits							80	0.415	160	0.830												
ECP H60-001 UNS-401C DECU Update			50	0.078																		
T400 Engine (AH1W, UH1N)																						
ECP TBD Bearing Pressure Oil Tube Assy			10	0.007																		
ECP TBD Improved Air Inlet Screen			15	0.006																		
ECP TBD Non Asbestos T5 Jumper Leads			80	0.008																		
ECP PWC-5232 Sprag Cluth Assy			250	0.010																		
ECP TBD Improved P3 Filter Bowl Housing			30	0.180	30	0.184																
ECP TBD Improved No. 5 & 8 Cup Washers			60	0.010																		
ECP TBD Improved No. 10 Bearing			400	0.685																		

Exhibit P-3a

FINANCIAL PLAN (TOA, $ in Millions): CLASSIFICATION:

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
T56 Engine (P-3, C-2, E-2, C-130)																						
ECP 2112R1 - 15 Micron Oil Filter	4,004	3.329																				
ECP 2132 Dummy Plug Redesign (SIII)			25	0.168																		
ECP 2132 Dummy Plug Redesign (IV)			25	0.181																		
ECP 2136 T-56-A-427-002 S/V Turbine Blade Rework			10	0.055																		
ECP 2141 T-56-A-427-003 Polished Swirl Plate			30	0.490	10	0.150	10	0.656	3	0.217												
ECP 56-A-427-001 Fuel Nozzle Purge			26	0.060																		
ECP 2129R1 Governors			60	0.400																		
ECP TBD SIV Dummy Plug Redesign			19	0.130																		
ECP 2143 Dome Shell Seal Kit			40	0.250	40	0.250																
ECP 2122B EMS/EAU Software			60	0.090																		
ECP 2131 DETC Omnibus Change			40	0.150																		
ECP 2134 Diaphragm for RGB			70	0.035																		
ECP 2102 Rear Engine Mount			50	0.015																		
ECP 2115 TD Amp Harness			100	0.056																		
ECP/AEM 104491 14 Stage Wheel			3	0.018																		
ECP 2013R1 Custom 450 Comp Vane			4	0.036																		
ECP 2127-3 Micron Scavenge Oil Filter			60	0.019																		
ECP TBD Assy Mod kits																						
ECP 2138 Wiring Mod Kits									310	0.779												
ECP 2124 MFC Omnibus Change			40	0.344	40	0.300	40	0.300														
F414 Engine (F/A-18E/F)																						
ECP TBD Combustor Flameout	150	0.015	150	0.015	100	0.500																
ECP C-10 HPC Durability and Performance	85	0.045	60	0.032	100	0.667																
ECP C-09 MFM Kits			50	0.350	100	0.990	50	0.386														
ECP TBD MFC Bracket Rework			50	0.150	75	0.225	50	0.150														
ECP TBD Transfer Lever Arm			75	0.371	50	0.250	30	0.150														
ECP TBD HPT Nozzle Retaining Ring			150	0.156	200	0.315	200	0.216														
ECP TBD A-sump Tube Bracket			100	0.035	62	0.137																
ECP A-02 A/B Case Aft Ring Hardcoat			10	0.034	75	0.756																
ECP C-06 Rework Balnace Piston Vent			15	0.033																		
ECP TBD VEN Start Line Cracking	55	0.011	55	0.011	110	0.035																
ECP TBD Control System Mod kits					75	0.647	36	0.325	45	0.400												
ECP TBD IGV Mod kits					62	0.468	50	0.377	40	0.474												
ECP TBD Gas Path Mod kits					80	0.758	30	0.318														
ECP TBD A/B Mod kits																						
F405 Engine (T-45)																						
ECP TS-234 Rising Idle Modification	166	0.082	166	0.081	28	0.080																
ECP TBD Compressor Improved Coating	55	0.165	33	0.100			26	0.074														
ECP TBD LP Stator Coating	45	0.250	35	0.194																		
ECP TBD Fuel Control Unit Life Enhancement	60	0.120																				
ECP TBD Surge Modification Kits			83	0.150	83	0.150																
ECP TBD Omega Seals			83	0.075																		

Exhibit P-3a

FINANCIAL PLAN (TOA, $ in Millions): CLASSIFICATION:

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
ECP TBD Electrical Harness			83	0.075	64	0.058																
ECP TBD Module 02 Coating			83	0.075	83	0.075																
ECP TBD HVC Vane Coating			83	0.050	83	0.050																
ECP TBD Modules 3, 10, 11 Coatings			83	0.050	83	0.050																
ECP TBD LPNGV							240	0.394	70	0.089												
ECP TBD COSSI Drum			50	0.090			150	0.366	65	0.200												
J85 Engine (F-5, T-2, T-38)																						
ECP 85S-99 Carbide VEN Leafs*	30	0.348	8	0.100	42	0.434	16	0.200														
ECP 85N-55 Improved Ignition*	60	0.160	36	0.088	36	0.088																
ECP TBD Turbine Improvements			36	0.200	36	0.100	36	0.100														
ECP TBD Fuel Control Improvement			36	0.090	36	0.090	36	0.090														
ECP TBD Improved Ignitor System Components			36	0.061																		
ECP 85E-106 High Temperature Clamps*	107	0.008	36	0.055																		
F100 Engine (F-16)																						
ECP TBD Compresor Safety Changes							10	0.050	8	0.404												
ECP TBD Turbine Safety Changes							12	0.060	9	0.050												

Exhibit P-3a

FINANCIAL PLAN (TOA, $ in Millions): CLASSIFICATION:

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
T406 Engine (V22)																						
ECP TBD Gear Box Modification							6	0.047	3	0.036												
ECP TBD Turbine System Modification							6	0.052	8	0.060												
COMPLETED ECPS FROM PRIOR YRS	32,169	193.063																				
Installation Kits N/R																						
Installation Equipment																						
Installation Equipment N/R																						
Engineering Change Orders																						
Data		0.271		0.050		0.050		0.050		0.050												
Non Recurring Equipment		0.164																				
Support Equipment		0.106																				
ILS		4.036		0.382		0.390		0.505		0.405												
Other Support		33.289		2.871		1.130		1.284		1.237												
Interim Contractor Support																						
Installation Cost		30.780		1.265		0.935		1.419		1.391												
TOTAL PROCUREMENT	**54,598**	**306.564**	**6,806**	**23.377**	**3,628**	**23.704**	**7,151**	**26.334**	**7,064**	**24.519**												

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **All Active In-Service Navy and Marine Corps Aircraft** MODIFICATION TITLE: Power Plant Changes (OSIP: N/A)

INSTALLATION INFORMATION: The tables below list the quantities, installation schedules, and costs for those ECPs for which there is an installation cost. Of those ECPs with installation costs, three are not shown as they are labor-only modifications and require no kit. The reason they are not shown in these tables is that the procurement quantity and installation quantities would not be equal.

METHOD OF IMPLEMENTATION: Current with engine/module repair (where installation cost is zero), or by forced retrofit (shown below).

ADMINISTRATIVE LEADTIME: Average 6 Months PRODUCTION LEADTIME: Average of 12 months

CONTRACT DATES: FY 2004: Varies FY 2005: Varies FY 2006: Varies FY 2007: Varies

DELIVERY DATE: FY 2004: Varies FY 2005: Varies FY 2006: Varies FY 2007: Varies

($ in Millions)

Cost:	Prior Year		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$				
FY 2003 Kits and Prior (6,255)	6,255	8,754	59	64																		
FY 2004(575) kits			516	58	523	504																
FY 2005(923) kits					400	410																
FY 2006(1,557) kits							401	410														
FY 2007 (968) kits							1,156	1,009	968	673												
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
To Complete ( ) kits																						
TOTAL	6,255	8,754	575	122	923	914	1,557	1,419	968	673												

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	6255	142	145	144	144	230	231	231	231	389	388	390	390	242	242	242	242				
Out	6255	142	145	144	144	230	231	231	231	389	388	390	390	242	242	242	242				

	FY 2009				FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	1	2	3	4	Complete	TOTAL
In														
Out														

Exhibit P-40, BUDGET ITEM JUSTIFICATION

DATE: **February 2005**

APPROPRIATION/BUDGET ACTIVITY
Aircraft Procurement, Navy/APN-5 Aircraft Modifications

P-1 ITEM NOMENCLATURE
JPATS Series Modification

Program Element for Code B Items:

Other Related Program Elements

	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
QTY												
COST (In Millions)	**0.0**	A	**0.5**	**0.6**	**0.7**	**1.7**	**1.3**	**1.5**	**1.5**	**1.6**	**14.8**	**24.2**

This line item funds modifications to T-6A aircraft. The T-6A Texan II is a tandem-seat, turboprop aircraft derivative of the Pilatus PC-9 aircraft powered by a single Pratt & Witney PT6A-68 engine. It serves as the aircraft component of the JPATS integrated primary pilot training system which replaces the T-34C primary training aircraft. The overall goal of the modifications budgeted in FY 2006 is to correct discrepancies and deficiencies discovered after delivery of the aircraft, maintain joint configuration with Air Force aircraft and the joint program. It also incorporates major upgrades to the aircraft cockpit, navigation system, and aircrew life support system (ALSS).

The specific modifications budgeted and programmed are:

(TOA, $ in Millions)

OSIP No.	Description	Prior Years	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
11-04	JPATS Correction of Deficiencies		0.5	0.6	0.7	1.7	1.3	1.5	1.5	1.6	14.8	24.2
	Total		0.5	0.6	0.7	1.7	1.3	1.5	1.5	1.6	14.8	24.2

Note: Totals may not add due to rounding.

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: JPATS Correction of Defeciencies (OSIP 11-04)

MODELS OF SYSTEMS AFFECTED: T-6A | TYPE MODIFICATION: PS SAFETY

DESCRIPTION/JUSTIFICATION:

* Corrections to discrepancies found during testing and evaluation can sometimes be incorporated into production aircraft, effective with the physical configuration audit which establishes the product baseline of the aircraft. However when this cannot be done due to time constraints, retrofit of the changes into already delivered aircraft requires funding through the Aircraft Modification Program. Additionally, deficiencies discovered during Fleet operations must be corrected. The unacceptable alternative to retrofitting would be multiple configurations in the Fleet, which creates maintenance and supply problems, and in many cases the mission capability of the aircraft would be adversely affected as well as reduced service life. Corrections to the following items/conditions are required:

VHF radio ECP (ECP-055)	Provide for the correction of volume and reception level discrepancies. Current volume inequities between the UHF/VHF radios make the radio unintelligible and a safety concern for aircrew.
Nose Wheel Centering (ECP-052)	Safety modification to provide positive nose wheel centering inflight. Category 1 Deficiency,
MLG door tie rods	Retrofit of improved durability MLG door tie rod.
MLG Sidebrace Redesign (ECP-059)	Re-work of existing MLG drag link. Improve grease fitting access to maintainablity improvement.
Oil Pressure Warning	Safety modifications to correct oil pressure cockpit warning indications and associated systems to improving aircrew situational awareness and overall systems operation.
OBOGS upgrades (ECP-049)	Safety modifications to improve the normal and emergency aircrew oxygen supply systems. Mods address increased supply , delivery control box and software logic corrections.
Trim System Redesign	Safety modification to reduce trim actuator force limit, decrease activation speed. Results in shorter landing distances.
Braking (anti-skid)	Safety modification to improve the short field abort and stopping distances of the aircraft through the introduction of improved tires and braking system.
NACWS replacement	Safety modification to replace the obsolete and unsupportable Naval Aircraft Collision Warning System (NACWS) due to FAA changes in the National Airspace System.
Ejection Mode Selector	Modifies Interseat Sequencing System (Ejection system) to add two additional modes allowing command ejection authority designated to each seat.
Anti-suffocation valve	Safety modification addressing excessive force required to breath of current valave. Correction will solve unconscience aircrew air supply requirements.
OBOGS Blinker visibility at night	Safety modification to increase blinker visibility at night. Deficiency noted during OPEVAL.
Landing Gear Doors & Bellcrank	Structural fixes to gear doors & bellcrank to eliminate cracking.
UWARS addition to ejection seat	Safety modification to add UWARS to Ejection Seat. Current system lacks UWARS, resticting overwater flight operations.
Acceptance of Ground Power (ECP-056)	Operational modification to allow acceptance of electric power commercial ground power carts.
Life Raft Addition to Ejection Seat	Safety modification to install Life raft to ejection seat. Current system lacks raft, restricting overwater flight operations.
Cockpit Improvements (ECP-058/063)	Safety and Human Factors modification to the cockpit to improve aircrew efficiencies and to eliminate excessive pilot workload and other dangerous situations. Modifications include rearview mirrors, improved cockpit storage, improved night lighting, reducing excessive ambient noise, improved trim relays, open avionic wire bundles, communication audio volume solutions, nose wheel position/positioning systems and flight instrument display issues.
Increase Gross Weight	Structural mods to increase weight capacity. Need driven by weight additions for Anti-Skid, Life Raft, Oil Pressure warning system.
OBOGS Low Pressure Switch	Safety modification to improve OBOGS low pressure switch. In-flight failures have caused numerous aborts.
Condensor blower motor-longer life	Replace air conditioning blower with longer life, brushless motor, reducing life cycle costs
Supplemental Oxygen System	Safety modification to increase volume of emergency oxygen. Class A safety board recommendation.
GPS receiver upgrade-LAAS	Operational update to GPS system-allows aircraft to utilize LAAS approaches.
Engine PMU upgrade	Operational modification to fix engine power management unit (PMU) software. Mod required to eliminate hot-start abort conditions.
ANTI-G valve replacement	Safety modifiction to improve Anti-G valve with rust resistant valve. Rusty valves have caused numerous inflight emergencies (loss of pressurization)
Avionics Obsolescence	Replace various Avionics components due to supplier and/or technical obsolescence.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Feb 93 recevied MS 0 and MS I approval, Aug 95 received MSII and LRIP approval, Dec 01 received MS III approval, and Navy IOC occurred 4th Qtr FY03.

Exhibit P-3a Individual Modification

MODIFICATION TITLE: JPATS Correction of Defeciencies (OSIP 11-04)

MODELS OF SYSTEMS AFFECTED: T-6A TYPE MODIFICATION: PS SAFETY

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
VHF radio ECP (ECP-055)					9	*	20	*														
Nose Wheel Centering (ECP-052)			29	0.1	2	*																
MLG door tie rods					2	*	10	0.1														
MLG Sidebrace Redesign (ECP-059)					2	*	1	*	1	*												
Oil Pressure Warning					8	0.1	6	*	12	0.1												
OBOGS upgrades (ECP-049)			12	0.1	9	0.1	9	0.1														
Trim System Redesign					3	*	3	*	15	0.2												
Braking (anti-skid)									6	0.1												
NACWS replacement									4	0.1												
Ejection Mode Selector					4	*	24	*	13	*												
Anti-suffocation valve					4	*	8	*	15	*												
OBOGS Blinker visibility at night					3	*	3	*	15	*												
Landing Gear Doors & Bellcrank					2	*	2	*	10	0.1												
UWARS addition to ejection seat					2	*	2	*	44	0.1												
Acceptance of Ground Power (ECP-056)					2	*	2	*														
Life Raft Addition to Ejection Seat					2	*	2	*	20	0.1												
Cockpit Improvements (ECP-058/063)					3	0.1	4	0.1	4	0.1												
Increase Gross Weight							1	*	10	0.1												
OBOGS Low Pressure Switch							24	*	17	*												
Condensor blower motor-longer life					1	*	1	*	1	*												
Supplemental Oxygen System									1	*												
GPS receiver upgrade-LAAS																						
Engine PMU upgrade																						
ANTI-G valve replacement							24	*	17	*												
Avionics Obsolescence							49	*	49	*												
Installation Kits NR										*												

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
Installation Equipment																						
VHF Radio					9	*	20	*														
Nose Wheel Centering (ECP-052)			29	0.3	2	0.1																
MLG door tie rods					2	*	10	*														
MLG Sidebrace Redesign (ECP-059)					2	*	1	*	1	*												
Oil Pressure Warning					8	*	6	*	12	*												
OBOGS upgrades (ECP-049)			12	*	9	*	9	*														
Trim System Redesign					3	*	3	*	15	*												
Braking (anti-skid)									6	0.2												
NACWS replacement									4	*												
Ejection Mode Selector					4	*	24	*	13	*												
Anti-suffocation valve					4	*	8	*	15	*												
OBOGS Blinker visibility at night					3	*	3	*	15	*												
Landing Gear Doors & Bellcrank					2	*	2	*	10	*												
UWARS addition to ejection seat					2	*	2	*	44	0.1												
Acceptance of Ground Power (ECP-056)					2	*	2	*														
Life Raft Addition to Ejection Seat					2	*	2	*	20	*												
Cockpit Improvements (ECP-058/063)					3	*	4	*	4	*												
Increase Gross Weight							1	*	10	0.1												
OBOGS Low Pressure Switch							24	*	17	*												
Condensor blower motor-longer life					1	*	1	*	1	*												
Supplemental Oxygen System									1	*												
GPS receiver upgrade-LAAS																						
Engine PMU upgrade																						
ANTI-G valve replacement							24	*	17	*												
Avionics Obsolescence							49	*	49	*												
Installation Equipment NR								*		*												
Engineering Change Orders																						
Data						*		*		*												
Training Equipment						*	12	*	18	*												
Support Equipment						*		*		*												
ILS						*		*		*												
Other Support						*		*		*												
Interim Contractor Support																						
Installation Cost			**41**	*	**58**	0.2	**207**	0.1	**272**	0.1												
Total Procurement			**41**	**0.5**	**58**	**0.6**	**207**	**0.7**	**272**	**1.7**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a — Individual Modification

MODIFICATION TITLE: JPATS Correction of Defeciencies (OSIP 11-04)

INSTALLATION INFORMATION: VHF Radio (Audio Volume)/OBOGS Upgrades (ECP-049)/Oil Pressure Warning/Anti-suffocation Valve/Ejection Mode Selector/Cockpit Improvements/NACWS Replacement/ Avionics Obsolescence/Braking Improvement (Antiskid)/Nose Wheel Centering/MLG Door Tie Rods/MLG Sidebrace Redesign/Trim System Redesign/Landing Gear Doors & Bellcrank/UWARS Addition to Ejection Seat/Acceptance of Ground Power/Life Raft Addition to Ejection Seat/Increase Gross Weight/OBOGS Low Pressure Switch/ GPS Repeater for Simulator/Baro Altimeter Repeater for Simulator/Condensor Blower Motor-Longer Life/Supplemental Oxygen System/GPS Receiver Upgrade-LAAS/OBOGS Blinker Visibility at Night/Engine PMU Upgrade/Anti-G Valve/Simulator Mods to Reflect A/C Systems

MODELS OF SYSTEMS AFFECTED: T-6A

TYPE MODIFICATION: PS SAFETY

ADMINISTRATIVE LEADTIME: * Months

PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2004: Various FY 2005: Various FY 2006: Various FY 2007: Various

DELIVERY DATE: FY 2004: Various FY 2005: Various FY 2006: Various FY 2007: Various

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits																						
FY 2004 ( ) kits			41	*																		
FY 2005 ( ) kits					58	0.2																
FY 2006 ( ) kits							207	0.1														
FY 2007 ( ) kits									272	0.1												
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL			**41**	*****	**58**	**0.2**	**207**	**0.1**	**272**	**0.1**												

Notes: Includes trainer kits

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In			13	14	14		19	19	20	51	51	51	54	68	68	68	68
Out			13	14	14		19	19	20	51	51	51	54	68	68	68	68

	FY 2008				FY 2009				FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	TOTAL
In																		
Out																		

	BUDGET ITEM JUSTIFICATION SHEET P-40	DATE: February 2005
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy / APN5 Aircraft Modifications	P-1 ITEM NOMENCLATURE **057500 AVIATION LIFE SUPPORT MODS**	
Program Element for Code B Items:	Other Related Program Elements	

	PRIOR YEARS	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	TO COMPLETE	TOTAL
QUANTITY		A										
COST (In Millions)	0.5	A	3.1	2.5	0.3	16.3	16.0	8.3	8.5	11.6	32.6	99.7

The specific modifications budgeted and planned are:
(1) Detector installation on rotary and cargo aircraft to identify the presence of chemical warfare (CW) vapors.
(2) The addition of the Mobile Aircrew Restraint System (MARS) to helicopters. MARS will replace existing fixed length tether with a locking retraction system that allows safe movement of the aircrew within the cargo area while affording protection during a mishap or combat. MARS will be mounted to the aircraft overhead.

(TOA, $ in Millions)

OSIP NO DESCRIPTION	PRIOR YEARS	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	TO COMPLETE	TOTAL
017-03 OBOGS	0.5	3.1									3.6
002-05 CW DETECTORS			2.5	0.3	2.4	4.2	5.6	5.9	6.2	32.5	59.6
001-07 MARS					13.9	11.7	2.7	2.7	5.4	0.1	36.5
TOTAL	0.5	3.1	2.5	0.3	16.3	16.0	8.3	8.5	11.6	32.6	99.7

Note: Totals do not add due to rounding.

Exhibit P-3a Individual Modification

MODIFICATION TITLE: (OSIP - 017-03) LIQUID BREATHING OXYGEN TO ON BOARD OXYGEN GENERATION SYSTEM (LTO)

MODELS OF SYSTEMS AFFECTED: E-2 AND C-2A TYPE MODIFICATION: Common Aircrew System (Cost Reduction & Safety)

DESCRIPTION JUSTIFICATION: This modification is referred to as LOX to OBOGS and was part of a cost reduction initiative to eliminate the need for manufacturing and storage of liquid oxygen.

DEVELOPMENT STATUS / MAJOR MILESTONES: The modification program has been discontinued. Engineering efforts have shown that retrofitting older aircraft for LOX to OBOGS is not cost effective.

FINANCIAL PLAN: (TOA, $ in Millions)

	PRIOR YEARS		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		TO COMPLETE		TOTAL	TOTAL
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS (A KITS)																						
INSTALLATION KITS N/R				1.7																		
INSTALL EQUIPMENT (B KITS)																						
INSTALL EQUIPMENT N/R		0.5		1.0																		
ECO																						
DATA																						
TRAINING EQUIP																						
SUPPORT EQUIP																						
ILS																						
OTHER SUPPORT				0.3																		
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST																						
TOTAL PROCUREMENT		0.5		3.1																		

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: AVIATION LIFE SUPPORT MODS MODIFICATION TITLE: (OSIP - 017-03)

INSTALLATION INFORMATION: NAVY DURING STANDARD DEPOT LEVEL MAINTENANCE (SDLM), CONTRACTOR DURING SDLM

METHOD OF IMPLEMENTATION:

ADMINISTRATIVE LEADTIME: Months PRODUCTION LEADTIME: 0 Months

CONTRACT DATES: FY 2004 FY 2005 FY 2006 FY 2007

DELIVERY DATE: FY 2004 FY 2005 FY 2006 FY 2007

($ in Millions)

Cost:	PRIOR YEARS		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS kits																						
FY 2004 kits																						
FY 2005 kits																						
FY 2006 kits																						
FY 2007 kits																						
FY 2008 kits																						
FY 2009 kits																						
FY 2010 kits																						
FY 2011 kits																						
To Complete kits																						
TOTAL	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0												

Installation Schedule

	PRIOR YEARS	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In																									
Out																									

	FY 2010				FY 2011				To Complete				TOTAL	TOTAL
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Exhibit P-3a — Individual Modification

MODIFICATION TITLE: (OSIP - 002-05) CW DETECTORS

MODELS OF SYSTEMS AFFECTED: AH-1W/Z/CH-53/K-130J/K-130T/MH-53E/MH-60S/MV-22B/UH-1NY — TYPE MODIFICATION: IMP METHOD

DESCRIPTION/JUSTIFICATION: Installation of the Joint Chemical Agent Detector (JCAD) will automatically and simultaneously detect, identify, and quantify CW agent vapors by agent class(e.g. nerve, blister, and blood agents). The JCAD Detectors will be procured and provided to the NAVAIRSYSCOM by the Joint Chemical Biological Defense Program (CBDP) Office. The CH-53 installation has 2 JCADS per platform. Installation of the Joint Service Lightweight Standoff Chemical Agent Detector (JSLSCAD) on the CH-53 will provide standoff detection of CW agents at a distance of 0 to 5 km. The CH-53 installation has 1 JSLSCAD per platform.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: JPEO (CBD) MS-C for JCAD detector Is planned for 2QTR FY07. All CW Detector CH-53 installation equipment will be provided to NAVAIR by the CBDP procurements.
The kits for each platform is different and will have to be made. The first two kits for each platform will be for validation and verification - which can be purchased and installed the same year. The other kits will take longer to be delivered so that is the reason for the installation schedule.

FINANCIAL PLAN: (TOA, $ in Millions)

	PRIOR YEARS		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		TO COMPLETE		TOTAL	TOTAL
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS (A KITS)																						
AH-1W/Z INSTALLATION KITS																						
CH-53 INSTALLATION KITS									2	*												
KC-130J/T INSTALLATION KITS																						
MH-53E INSTALLATION KITS																						
MH-60S INSTALLATION KITS																						
MV-22B INSTALLATION KITS																						
UH-1N/Y INSTALLATION KITS																						
INSTALLATION KITS N/R						1.3		0.2		0.7												
INSTALL EQUIPMENT (B KITS)																						
INSTALL EQUIPMENT N/R										0.1												
ECO																						
DATA										0.3												
TRAINING EQUIP						*		*		0.2												
SUPPORT EQUIP						*		*		*												
ILS						0.3		0.1		0.2												
OTHER SUPPORT						0.9		0.1		1.0												
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST									2	0.1												
TOTAL PROCUREMENT						2.5		0.3		2.4												

1. Totals may not add due to rounding.
2. Asterisk indicated amount less than $50K

(OSIP - 002-05)

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: AH-1W/Z/CH-53/K-130J/K-130T/MH-53E/MH-60S/MV-22B/UH-1NY MODIFICATION TITLE: (OSIP - 002-05)

INSTALLATION INFORMATION: NAVY DURING SDLM, NAVY DRIVE-IN MOD, CONTRACTOR DURING SDLM, CONTRACTOR DRIVE-IN MOD

METHOD OF IMPLEMENTATION: DEPOT, CONTRACTOR

ADMINISTRATIVE LEADTIME: 5 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2004 FY 2005 FY 2006 Mar-06 FY 2007 Mar-07

DELIVERY DATE: FY 2004 FY 2005 FY 2006 Mar-07 FY 2007 Mar-08

($ in Millions)

Cost:	PRIOR YEARS		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS kits																						
PRIOR YEARS kits																						
FY 2004 kits																						
FY 2005 kits																						
FY 2006 kits																						
FY 2007 kits 2									2	0.1												
FY 2008 kits																						
FY 2009 kits																						
FY 2010 kits																						
FY 2011 kits																						
To Complete																						
TOTAL	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1												

Installation Schedule

	PRIOR YEARS	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In																	2								
Out																	2								

	FY 2010				FY 2011				To Complete				TOTAL	TOTAL
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Exhibit P-3a Individual Modification

MODIFICATION TITLE: (OSIP - 001-07) Mobile Aircrew Restrait System (MARS)

MODELS OF SYSTEMS AFFECTED: C-130H/H-46H-53/D/H-53-E/H-60R/H-60S/UH-1Y/V-22 TYPE MODIFICATION: IMP METHOD

DESCRIPTION JUSTIFICATION :Safety initiative to replace the existing mobile crewmember safety belt system with the Mobile Aircrew Restraint System (MARS). The new MARS design increases crash survivability by providing improved aircrew restraint within the cabin through the use of a "g" and velocity sensitive locking reel mechanism and crewmember harness. The MARS retractor systems and associated aircraft installation modifications will be procured and provided to the NAVAIRSYSCOM by PMA-202 office.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILSTONES: MS-C for MARS installation into H-60R aircraft is planned for 3QTR FY07.

FINANCIAL PLAN: (TOA, $ in Millions)

	PRIOR YEARS		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		TO COMPLETE		TOTAL	TOTAL
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS (A KITS)																						
C-130 INSTALLATION																						
H-46 INSTALLATION																						
H-53D INSTALLATION									160	1.2												
H-53E INSTALLATION									297	2.2												
H-60R INSTALLATION									62	0.5												
H-60S INSTALLATION									381	2.8												
UH-1Y INSTALLATION																						
V-22 INSTALLATION																						
INSTALLATION KITS N/R										1.8												
INSTALL EQUIPMENT (B KITS)																						
C-130 EQUIPMENT																						
H-46 EQUIPMENT																						
H-53D EQUIPMENT									160	0.8												
H-53E EQUIPMENT									297	1.6												
H-60R EQUIPMENT									62	0.3												
H-60S EQUIPMENT									381	2.0												
UH-1Y EQUIPMENT																						
V-22 EQUIPMENT																						
INSTALL EQUIPMENT N/R																						
ECO																						
DATA										0.3												
TRAINING EQUIP										*												
SUPPORT EQUIP																						
ILS																						
OTHER SUPPORT																						
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST									450	0.4												
TOTAL PROCUREMENT										13.9												

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: C-130/H-46/H-53D/H-53E/H-60R/H-60S/UH-1Y/V-22 MODIFICATION TITLE:

INSTALLATION INFORMATION: NAVY FIELD MOD TEAM

METHOD OF IMPLEMENTATION: DEPOT, CONTRACTOR

ADMINISTRATIVE LEADTIME: 5 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2004 FY 2005 FY 2006 FY 2007 Mar-07

DELIVERY DATE: FY 2004 FY 2005 FY 2006 FY 2007 Mar-08

($ in Millions)

Cost:	PRIOR YEARS		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS kits																						
FY 2004 kits																						
FY 2005 kits																						
FY 2006 kits																						
FY 2007 kits 900									450	0.4												
FY 2008 kits																						
FY 2009 kits																						
FY 2010 kits																						
FY 2011 kits																						
To Complete																						
TOTAL	0	0.0	0	0.0	0	0.0	0	0.0	450	0.4												

Installation Schedule

	PRIOR YEARS	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In																225	225								
Out																225	225								

	FY 2010				FY 2011				To Complete				TOTAL	TOTAL
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Exhibit P-40, BUDGET ITEM JUSTIFICATION | DATE: **February 2005**

APPROPRIATION/BUDGET ACTIVITY: **Aircraft Procurement, Navy/APN-5 Aircraft Modifications**

P-1 ITEM NOMENCLATURE: **Common ECM Modifications**

Program Element for Code B Items: 0204161N, CLI: 057600

Other Related Program Elements

	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
QTY		A										
COST (In Millions)	**418.6**	A	**48.1**	**53.1**	**51.4**	**35.8**	**36.0**	**36.5**	**37.2**	**75.5**	**171.4**	**926.6**

This line item funds common equipment (B kits) for multiple aircraft. The overall goal of the modification budget is to provide a reprogrammable radar and missile warning system, provide attacking missile declaration and sector direction finding, laser detection, and self production capability devices to applicable user aircraft.

(TOA, $ in Millions)

OSIP No.	Description	Prior Years	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
072-88	AN/AAR-47 MAWS Hardware	197.8	20.2	11.9	8.4	0.7					1.5	**240.4**
014-90	AN/APR-39 (V)2 RWR&AN/AVR 2 HD	170.8	5.7	5.1							21.5	**203.2**
006-00	ALE-39 to 47 Retrofit	45.6	10.5									**56.1**
007-03	IDECM	4.4	11.8	36.1	42.9	35.1	36.0	36.5	37.2	38.5	148.4	**427.0**
XXX-11	TADIRCM									37.0		
Title IX	AN/APR-39A EQUIP (Non-add line)		5.2									5.1
Title IX	AN/AAR-47 MAWS Hardware (Non-add line)		10.6									10.6
Title IX	ALE-39 to 47 Retrofit (Non-add line)		4.3									4.3
	Total	**418.6**	**48.1**	**53.1**	**51.4**	**35.8**	**36.0**	**36.5**	**37.2**	**75.5**	**171.4**	**926.6**

Note: Title IX funding - $ 4.6M FY04 Supplemental Funds (APN5 1741564/Y5WC) were added to the Common ECM Program line to procure Aviation Survivability Equipment for deploying aircraft in support of the Global War on Terror (GWOT). Of the $4.6M the breakout is as follows: $2.2M is included in OSIP (72-88) for AAR-47, and $2.4M is included in OSIP (06-00). An additional $20.1M Title IX funding Supplemental Funds were added to the program but are not reflected in the controls issued. The distribution and utilization of these funds are put forth as a Non-Add line in these exhibits. Total Title IX Supplemental Funds received total $24.7M.

Totals may not add due to rounding.

Exhibit P-3a — Individual Modification

MODIFICATION TITLE: AN/AAR-47 Missile Approach Warning System (MAWS) (OSIP 72-88)

MODELS OF SYSTEMS AFFECTED: CH-46E, CH-53A/D/E, RH-53D, MH-53E, UH-1, AH-1, C-130, P-3, HH-60H, SH-60B, VH-3, VH-60, V-22

TYPE MODIFICATION: Mission Capability

DESCRIPTION/JUSTIFICATION: The AN/AAR-47 warns of approaching missiles by detecting radiation associated with the rocket motor and automatically initiates flare ejection. Detection algorithms are used to discriminate against non-approaching radiation sources. The AN/AAR-47 is a passive missile approach warning system consisting of four sensor assemblies housed in two or more sensor domes, a central processor unit and a control indicator. The AN/AAR-47 provides attacking missile declaration and sector direction finding (DF) and will be interfaced directly to the ALE-39/47 countermeasures dispenser. Without the AAR-47, helicopters and Fixed Wing Aircraft have no capability to detect an infrared (IR) missile attack.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Milestone II was passed in 1982. OPEVAL (on the CH-53E) was passed in Oct 86.

Milestone III was passed in May 87 for full production with extension of application to all other platforms. Production of 709 systems and preparation of a Level III data package followed, with deliveries completed in early 1992. Under full and open competition, a contract for up to 1200 systems was awared to Hercules (now Alliant) in Dec 91. Actual orders were for 1122 systems with deliveries completed in Jan 97. Under full and open competition, a contract for up to 1077 systems was awarded to Lockheed Martin in Sep 95. Deliveries began in Jan 97 and were completed in Jul 99.

There are two upgrade programs: FY-97/98/99 funded a microprocessor upgrade to replace the 8086 board with an 80486 running new software to enhance threat declaration and to better control false alarms. This software delivers the maximum performance attainable using current sensors. FY-06 and beyond also funds a sensor upgrade. The current sensors are starting to wear out after 5 years, due to temperature sensitive materials. The new sensors will remove this limitation and will also provide improved performance. This will allow the AAR-47 to better respond to new threats via software changes only. Both upgrades are 100 percent retrofit. There are 2500 systems for installation on all applicable aircraft. TEMP # 543 documents the current requirement. ORD #500-88-98 documents existing requirements for the upgrades.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E		24.0																				
PROCUREMENT																						
Installation Kits																						
Installation Kits N/R																						
Installation Equipment																						
AAR-47 Equip	1,250	90.2		0.9																		
Installation Equipment N/R																						
CP Upgrade N/R		4.7																				
Sensor Upgrade N/R		19.9		1.1																		
Engineering Change Orders																						
CP Upgrade Equip ECO	1,250	7.0																				
Sensor Upgrade Equip ECO	548	24.5	275	17.3	166	10.5	110	7.7														
*NON ADD -SENSOR UPGRADE			151	7.0																		
Data		0.3																				
*NON ADD - USMC DATA COL				3.6																		
Training Equipment	4	0.6																				
Support Equipment		5.6																				
ILS		5.1		0.2		0.3		0.2		0.2										0.5		
Other Support		39.9		0.7		1.0		0.5		0.5										1.0		
Interim Contractor Support																						
Installation Cost		*																				
Total Procurement		**197.8**		**20.2**		**11.9**		**8.4**		**0.7**										**1.5**		

Notes:

1. Totals may not add due to rounding

2. Non-add lines reflects TITLE IX funding, APPN 1564

Exhibit P-3a — Individual Modification

MODIFICATION TITLE: AN/APR-39A(V)2/AN/AVR-2/2A(V) Electronic Warfare Receivers (OSIP 14-90)

MODELS OF SYSTEMS AFFECTED: AN/APR-39(V)2; AH-1W, AH-1Z, UH-1N, UH-1Y, HH-60H, CH-53D/E/HM-53E, KC-130F/R/T, VH-3D VH-60N, SH-60B, MV-22, AN/V4-2/2(V); AH-1W, AH-1Z, MV-22, UH-1N, UH-1Y, VH-3, VH-50, HH-60H, SH-60R

TYPE MODIFICATION: Mission Capability

DESCRIPTION/JUSTIFICATION: The AN/APR-39A(V)2 Radar Signal Detecting Set (RSDS) is designed for use on US Marine Corps, US Navy, and US Army Assault Support aircraft to provide onboard warning of radar threats. The AN/APR-39A(V)2 provides control and display of the entire Assault Support Equipment(ASE) Suite, and is required for control and display of the AN/AVR-2/2A(V) and the AAR-47. The system consists of five antennas, one Cockpit Control Unit, one or two Display indicators, two to four receivers, and one processor. The AN/AVR-2/2A(V) laser detection set (LDS) is designed for use on U.S. Army, U.S. Marine Corps, and U.S. Navy Assault Support aircraft. The AN/AVR-2/2A(V) reduces the susceptability of helicopters to attack from laser guided and laser aided threats by providing warning of laser illumination. The system consists of four to six sensor units and one or two comparators. The system requires the APR-39A(V)2 Cockpit Control Unit for On/Off and BIT. AVR-2/2A(V) warnings are displayed on the APR-39A(V)2 cockpit display.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The U. S. Army awarded a production contract for the AVR-2 in FY 90 and for the AVR-2A(V) in FY 94. Procurement for the U.S. Marine Corps and the U.S. Navy is via Military Interdepartmental Purchase Request (MIPR) to the U.S. Army.
The AN/APR-39A(V)2 is in the production phase of development (MSIII 3Q/96). The U.S. Navy is the lead service of this joint service program. The U.S. Army awarded the production contract 3Q/96, and continues to administer the contract. U. S. Navy delivery of production systems commenced June 99. Procurement of an AN/AVR-2/2A(V) in the AN/APR-39(V)2 for the additional requiring platforms will be by extension of application with the required follow-on test and evaluation conducted on each platform. FY-04 funds procured additional required systems and support.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E		6.8																				
PROCUREMENT																						
Installation Kits	7	0.2																				
Installation Kits N/R																						
Installation Equipment	648	97.0																				
AN/AVR-2/AN/APR-39A Equip.			24	4.0	15	2.7																
* NON-ADD AN/APR-39A Equip.			28	5.1																		
Installation Equipment N/R		16.7																				
Engineering Change Orders																						
Equip ECO		18.0																				
Data		1.0		0.1		0.1																
Training Equipment		1.0																				
Support Equipment		2.1				0.1																
ILS		6.3		0.1		0.1																
* NON-ADD Technical Support				0.1																		
Other Support		28.5		1.5		2.0																
Interim Contractor Support																						
Installation Cost																						
Total Procurement		**170.8**		**5.7**		**5.1**																

Notes:

1. Totals may not add due to rounding

2. Non-add lines reflects TITLE IX funding, APPN 1564

Exhibit P-3a — Individual Modification

MODIFICATION TITLE: AN/ALE-47 Dispenser System Retrofit (OSIP 06-00)

MODELS OF SYSTEMS AFFECTED: F-14B/D(114), CH-53E(181),EA-6B(3), AH-1W (146),CH-46E(147),UH-1N (86),KC-130FRT(20),CH-53D(7) TYPE MODIFICATION: Mission Capability

DESCRIPTION/JUSTIFICATION: The replacement of the AN/ALE-39 Dispenser System with the AN/ALE-47 Dispenser System will correct some serious safety problems while at the same time greatly improve aircraft survivability. The AN/ALE-39 system has serious problems with Things Falling Off Aircraft (TFOA) as well as numerous occurrences of uncommanded firing of chaff and flare stores. The reliability of the ALE-39 is another major factor with continuous reports of hung or unfired stores, a serious ground safety concern as well as a serious aircraft survivability concern. The AN/ALE-47 System has been developed to correct the safety issues of the ALE-39. USD(Acq) memo of Nov 86 directed U.S. Navy and U.S. Army to participate in EMD phase. Air Force Statement of Operational Requirements Document (SORD) number 341.88-11-D of 8 July 92. OSIP 06-00 had been cancelled beginning FY04. But operational requirements in support of the Global War on Terrorism have resulted in accelerated installs and additional aircraft being identified for retrofit incorporation.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The AN/ALE-47 System is in production and being installed in multiple U.S. Navy and Marine aircraft. MS III decision awarded Mar 93. FY 00 systems procured under Air Force contract F33657-96-D-0001. FY 01-06 systems procured under follow on ID/IQ contract F09603-01-D-0367.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
TACAIR/Helos Kit	637	1.6	97	1.7																		
Installation Kits N/R		1.8		1.3																		
Installation Equipment																						
TACAIR/Helos	667	26.8	103	3.0																		
ALE-39 Sequencer Switches	875	2.0																				
Installation Equipment N/R																						
Engineering Change Orders		0.3																				
Data																						
Training Equipment		3.1																				
Support Equipment		1.8		2.3																		
ILS		0.8		0.3																		
Other Support		5.7		1.5																		
Interim Contractor Support																						
Installation Cost																						
TACAIR/Helos	356	1.8	7	0.3	23																	
* TACAIR/Helos (Non-add line)			167	4.3																		
Total Procurement		**45.6**		**10.5**																		

Notes:

Non-add line reflects Title IX funds in FY04

Exhibit P-3a **TACAIR/Helo Exhibit**

MODELS OF SYSTEMS AFFECTED: F-14B/D(114), CH-53E(181),EA-6B(3), AH-1W (146),CH-46E(147),UH-1N (86),KC-130FRT(20),CH-53D(7) TYPE MODIFICATION: Mission Capability

INSTALLATION INFORMATION: ALE-47 Retrofit requires different types of Installation Equipment Kits based on the quantity of dispensers in each aircraft. TACAIR (F-14B/D, EA-6B) and Helos (CH-53E, CH-53D, AH-1W, UH-1) require two (2) dispensers per aircraft, and C-130 F/R/T require 10 dispensers per aircraft. Installation Equipment, Install Kits and Installation costs are therefore different as indicated in the above financial plan.

METHOD OF IMPLEMENTATION: ALE-47 Installation via aircraft mod team as established with each platform program office.

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 9 Months

CONTRACT DATES: FY 2004: FY 2005:

DELIVERY DATE: FY 2004: FY 2005:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**	Qty	**$**
FY 2003 & PY (356) kits	356	1.8																				
FY 2004 (30) kits			7	0.3	23																	
FY 2004 ( ) kits																						
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
To Complete ( ) kits																						
TOTAL	**356**	**1.8**	**7**	**0.3**	**23**																	

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	356				7	23															
Out	356						7	23													

	FY 2009				FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	1	2	3	4	Complete	TOTAL
In														
Out														

Notes:

* Funding for installation costs on the remaining 60 TACAIR/Helos kits was provided to the platform PMAs.

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: Integrated Defensive Electronic Countermeasures (IDECM), Radio Frequency Countermeasures (RFCM) | OSIP 007-03

MODELS OF SYSTEMS AFFECTED: F/A-18E/F | TYPE MODIFICATION: Mission Capability

DESCRIPTION/JUSTIFICATION: The RFCM subsystem consists of an onboard jammer and a fiber optic towed decoy, which integrates with a Radar Warning Receiver (RWR), countermeasures dispensing set (CMDS), and associated cockpit controls and displays to provide the lead aircraft (F/A-18E/F) with increased survivability against Radio Frequency (RF) threats. The Operational Requirements Document number is 494-88-98. The number of ALQ-214 systems is 424 plus spares for the F/A-18E/F. This Operational Safety Improvement Program (OSIP) procures ALQ-214s for retrofit into F/A-18E/F aircraft. FY03 includes funding for ALR-67V3 integration, ORD 360-88-94.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The IDECM RFCM program is currently in E&MD. MS 0,I, II approval was granted 26 October 1995. The IDECM RFCM subsystem completed an OA in the second quarter of FY00 leading to an NPR , LRIPI 1Q FY01 , LRIPII 1Q FY02, and LRIPIII 2Q FY04. The AN/ALQ-214 onboard jammer passed OPEVAL in Oct 2003 and received MS III approval in Jan 04. The FRP I contract was awarded in 4Q FY04.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E		374.7		21.6		13.2		7.6		5.3												
PROCUREMENT																						
Installation Kits																						
Installation Kits N/R																						
Installation Equipment			3	6.3	12	25.2	20	41.4	16	33.1												
Non-add Installation Equipment*																						
Installation Equipment N/R				3.0		5.6		0.6		0.7												
Engineering Change Orders																						
Kit ECO																						
Equip ECO		0.8																				
Data				0.4		0.6		0.2		0.3												
Training Equipment																						
Support Equipment																						
ILS				0.1		0.2		0.2		0.2												
Other Support		3.6		2.1		4.5		0.6		0.8												
Interim Contractor Support																						
Installation Cost																						
Total Procurement		**4.4**		**11.8**		**36.1**		**42.9**		**35.1**												

Totals may not add due to rounding

Asterisk indicates amount less than $50K

CLASSIFICATION: UNCLASSIFIED

Exhibit P-40, BUDGET ITEM JUSTIFICATION

DATE: **February 2005**

APPROPRIATION/BUDGET ACTIVITY
Aircraft Procurement, Navy/APN-5 Aircraft Modifications

P-1 ITEM NOMENCLATURE
Common Avionics

Program Element for Code B Items:

Other Related Program Elements

	Prior Years	ID Code	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	To Complete	Total
QTY		A										
COST (In Millions)	**802.2**	A	**137.6**	**166.9**	**214.2**	**192.5**	**170.1**	**165.5**	**168.0**	**171.1**	**1,092.0**	**3,280.0**

This line item funds common avionics equipment for multiple aircraft. With the exception of OSIPs 43-94 (Flight Data Recorders), 14-97 (KC-130T GPWS), 17-98 (Helo GPWS), and 24-99 (CAS), the individual aircraft platforms fund the "A" kits and installation in the appropriate aircraft line.

The specific modifications budgeted and programmed are: (1) The NAVSTAR GPS (Global Positioning System) is designed to provide a highly accurate passive position (16 meters) velocity (0.1 meter/sec) and time to users worldwide in all weather conditions. The GPS will interface with communication, navigation, and weapon systems equipment (standard attitude heading reference systems, inertial navigation systems, on-board computers, etc.) in selected applications. GPS is a DoD mandated requirement for all aircraft operating in the National Air Space System after the year 2000. (2) The AN/ARC-210 Electronic Protection (EP) Combination Radio provides dual UHF capability for CV based TACAIR; VHF AM for close air support and maritime channels; VHF AM for air traffic control; and EP capabilities. The AN/ARC-210 can be controlled by either a remote control unit or via MIL-STD-1553 multiplex data bus. (3) The Crash Survivable Flight Incident Recorder (CSFIR) is a crash hardened recorder which will be used in support of aircraft mishap and incident investigations. (4) The Embedded Global Positioning System/Inertial Navigation System (EGI) contains full Precise Position Service GPS on a single electronic module, plus a state-of-the-art Ring Laser Gyro inertial navigation system. (5) The AN/ARC- 182 Reuse Programs utilizes previously procured AN/ARC-182 systems which will become available as the AN/ARC-210 system is retrofitted into Navy aircraft. (6) The Ground Proximity Warning System (GPWS) provides visual and aural warnings to the pilot when the aircraft is in conditions that could result in a controlled flight into terrain accident. (7) The Traffic Alert & Collision Avoidance System (TCAS) will provide a display of situation awareness to aid in the prevention of mid-air mishaps. (8) The Advanced Mission Computer and Display (AMC&D) system will replace existing aging/obsolete and performance limited AN/AYK-14(V) Mission Computer and Contractor Furnished Equipment Displays. (9) The Tactical Air Moving Map Capability (TAMMAC), the common solution for US Naval Aviation, provides a common tactical aircraft moving map and data loading capability and replaces current obsolete Fleet equipment. (10) Communication Navigation Surveillance/ Air Traffic Management (CNS/ATM) provides civil upgrades to communications, navigation, and surveillance systems enabling shift from Air Traffic Control to Air Traffic Management in increasingly congested airspace and frequency spectrum. (11) HH-60 H A/A24G-39 AHRS Reliability Improvement Program. (12) Aircrew Wireless Intercom Communications System (AWICS) will provide a wireless, spread spectrum intercom system to allow for unimpeded movement throughout the aircraft and prevent aircrew/passenger entanglement with intercom system cords in the event of mishap. (13) Attitude Gyro Upgrade replaces obsolete gyros with a more reliable and, maintainable gyro. (14) Military Flight Operations Quality Assurance (MFOQA) is a program that provides the warfighter with timely and quantitative information regarding aircrew and system performance for improving safety, operational efficiency, and readiness every flight. The overall goal of the modifications budgeted in FY 2006 is to procure the common equipment required for the individual aircraft platforms. The specific modifications budgeted and programmed are:

(TOA, $ in Millions)

OSIP No.	Description	Prior Years	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	To Complete	Total
71-88	NAVSTAR GPS (Hardware)	286.1	2.3		18.0	22.3	22.8	23.3	24.6	26.0	464.7	**890.1**
04-94	AN/ARC-210 (Hardware)	228.8	26.8	23.4	9.4	1.4						**289.8**
43-94	Crash Survivable Flight Incident Recorders (CSFIR)	77.7	4.2	3.7	1.4							**87.0**
40-95	AN/ARC-182 Reuse Program	2.4	0.1									**2.6**
14-97	GPWS (CAT I) Fixed Wing	52.5	14.7	1.9	13.6	9.1	8.8	5.4	4.3	4.6	9.1	**124.0**
17-98	GPWS (CAT III) Rotary Wing	61.9	7.2	3.0								**72.1**
25-98	Traffic Alert & Collision Avoidance System (TCAS)	47.6	5.9	3.3	4.7	3.9	1.9	0.9				**68.3**
21-01	CNS/ATM	1.4	21.2	70.5	64.6	64.1	52.6	65.5	72.2	110.5	589.6	**1,112.2**
02-02	Tactical Air Moving Map Capability (TAMMAC)	9.1	18.6	14.9	23.1	25.6	19.9	12.3	6.4			**130.1**
01-02	AMC&D/MPCD	34.7	31.1	23.3	58.7	45.4	46.1	49.7	52.6	21.6	2.1	**365.4**
07-04	Attitude Gyro Upgrade		4.4	14.9	12.4	12.7	13.2	1.8				**59.4**
08-04	HH-60 AHRS Reliability & Improvement (CREI)		1.0	0.7								**1.7**
09-04	Aircrew Wireless Internal Communications System (AWICS)			7.2	8.1	8.0	4.6	4.4	4.6	4.4	26.5	**67.8**
XX-08	Military Flight Operations Quality Assurance (MFOQA)						0.1	2.2	3.4	4.0		**9.7**
Total		**802.2**	**137.6**	**166.9**	**214.2**	**192.5**	**170.0**	**165.5**	**168.1**	**171.1**	**1,092.0**	**3,280.0**

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: Global Positioning System (GPS) (OSIP 71-88)

MODELS OF SYSTEMS AFFECTED: All aircraft | TYPE MODIFICATION: Common Avionics (Safety) (Added Capability)

DESCRIPTION/JUSTIFICATION: The NAVSTAR GPS is designed to provide highly accurate passive position (16 meters), velocity (0.1 meter/sec) and time to users worldwide in all weather conditions. GPS will be integrated with communication, navigation, and weapon systems equipment (attitude heading reference systems, inertial navigation systems, mission computers, etc.). This OSIP procures the GPS B-kit equipment (receivers, antennas, amplifiers, CDNU, DDS, SDC, etc.) as required for the above platforms. Hardware configuration varies depending on the TMS of the aircraft. Approximately 2500 aircraft will be modified with equipment provided through this OSIP. The Global Positioning System Operational Requirement Document (ORD) 003-78 dated 22 Jan 90 was based on an Air Force General Operating Requirement (GOR) dated 28 Jan 1978. The Navy ORD for Enhanced GPS User Equipment for Navigation Warfare and GPS Modernization was approved on 7 June 2000.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The NAVSTAR GPS program completed Phase II (Full Scale Engineering Development) and completed Milestone IIIA (Approval for Limited Production) in June 1986. Milestone IIIB (Approval for Full Production) was completed in January 1992. Research, Development, Test and Evaluation, Navy (RDT&E,N) is funded under program element #0604777N.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
NAVWAR	111	1.5					120	4.0	86	3.0												
Installation Kits N/R																						
Installation Equipment																						
GPS	2,047	173.8																				
NAVWAR	123	4.5					108	7.2	86	9.3												
Installation Equipment N/R		18.7																				
Engineering Change Orders																						
NAVWAR Kit ECO		0.3																				
Data		7.8						*		0.3												
Training Equipment																						
GPS	114	7.8																				
NAVWAR	1	0.1																				
Support Equipment		0.3																				
ILS		0.4																				
Other Support		69.5		2.3				6.6		7.8												
Interim Contractor Support																						
Installation Cost	111	1.5					12	0.1	108	1.9												
Total Procurement		**286.1**		**2.3**				**18.0**		**22.3**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: All aircraft

MODIFICATION TITLE: Global Positioning System (GPS) (OSIP 71-88)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Equipment is provided to the platform PMA and installed as per airframe ECP/AFC.

ADMINISTRATIVE LEADTIME: 3

PRODUCTION LEADTIME: 10

CONTRACT DATES: FY 2004: _____ FY 2005: _____ FY 2006: Dec-05 FY 2007: Dec-06

DELIVERY DATE: FY 2004: _____ FY 2005: _____ FY 2006: Oct-06 FY 2007: Oct-07

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits	111	1.5																				
FY 2004 ( ) kits																						
FY 2005 ( ) kits																						
FY 2006 ( ) kits							12	0.1	108	1.9												
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	**111**	**1.5**					**12**	**0.1**	**108**	**1.9**												

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	111										12			27	27	27	27								
Out	111										12			27	27	27	27								

	FY 2010				FY 2011				To	Total
	1	2	3	4	1	2	3	4	Complete	
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: AN/ARC-210 Electronic Protection (EP) Combination Radio (OSIP 04-94)

MODELS OF SYSTEMS AFFECTED: AH-1W, AV-8B, C-2, CH-46E, C/MH-53D/E, EA-6B, KC-130F/R/T, F/A-18C/D, UH-1N, C-130, HH-60 TYPE MODIFICATION: Common Avionics Modification

DESCRIPTION/JUSTIFICATION: The AN/ARC-210 is a combination UHF/VHF, AM/FM jam-resistant radio that was developed to allow for EP interoperability with the Air Force, Army and NATO. The radio provides dual UHF capability for CV based TACAIR; VHF AM for close air support and maritime channels; VHF AM for air traffic control; and EP capabilities using the Air Force developed waveforms (UHF-AM HAVEQUICK I and II), and the Army developed waveform (VHF-FM SINCGARS). The AN/ARC-210 can be controlled by either a remote control unit or via a MIL-STD-1553 multiplex data bus. The EP parameters and single channel preset information can be loaded via a CYZ-10 Data Transfer Device (DTD). The fill information can consist of word-of-the-day for HAVEQUICK; the KGV-10 transec variable, hopsets and frequency lock-out tables for SINCGARS. Engineering Change Proposal (ECP) 12 incorporated embedded Demand Assigned Multiple Access (DAMA) Satellite Communications (SATCOM), embedded COMSEC, embedded Variable Message Format (VMF), Link 4A, and is compatible with the memory loader verifier. ORD # 333-06-93 dated 4/20/93 validated this modification.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The AN/ARC-210 Common OSIP provides B-kits and common logistics requirements to multiple aircraft. Individual platform OSIPs include non-recurring engineering, integration, A-kit manufacturing and unique aircraft logistic requirements. Full rate Production Decision was approved in May 1994. Incorporation of these hardware mods will be accomplished via an ECP to the production receiver/transmitters configuration. Corresponding platform OSIP numbers; C-2A OSIP 24-94; AH-1W OSIP 3-93; AV-8B OSIP 23-93; CH-46E OSIP 9-92; EA-6B OSIP 42-93; F/A-18C/D OSIP 39-92 and 10-99; K/C-130F/R/T OSIP 2-92; UH-1N OSIP 15-92; CH/MH-53D/E OSIP 11-92.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
AN/ARC-210 Kit			28	2.6	50	1.6	42	0.3														
Installation Kits N/R				3.1		1.5																
Installation Equipment																						
AN/ARC-210 Equip	2,695	159.6	249	16.1	223	13.5	100	5.5														
Installation Equipment N/R		4.9		0.1		0.8																
Engineering Change Orders		8.0																				
Data		4.5		0.2		0.3																
Training Equipment	36	2.9		*		0.1		*														
Support Equipment		9.5		0.2		0.2																
ILS		10.3		1.4		1.6		0.6														
Other Support		28.9		3.2		3.3		1.4		0.4												
Interim Contractor Support																						
Installation Cost					7	0.6	20	1.7	12	1.0												
Total Procurement		**228.8**		**26.8**		**23.4**		**9.4**		**1.4**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. A-Kits for F/A-18C/D and KC-130 procured in FY 04-06. Installs are reflected in platform OSIP's.
4. A kits in FY04-06 are for KC-130, F/A-18C/D, HH-60

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: AH-1W, AV-8B, C-2, CH-46E, C/MH-53D/E, EA-6B, KC-130F/R/T, F/A-18C/D, UH-1N, C-130, HH-60

MODIFICATION TITLE: AN/ARC-210 Electronic Protection (EP) Combination Radio (OSIP 04-94)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Prime Contractor

ADMINISTRATIVE LEADTIME: 5 Months

PRODUCTION LEADTIME: 11 Months

CONTRACT DATES: FY 2004: Mar-04 FY 2005: Mar-05 FY 2006: Mar-06 FY 2007:

DELIVERY DATE: FY 2004: Feb-05 FY 2005: Feb-06 FY 2006: Feb-07 FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits																						
FY 2004 ( ) kits					7	0.6																
FY 2005 ( ) kits							20	1.7	10	0.9												
FY 2006 ( ) kits									2	0.2												
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL					**7**	**0.6**	**20**	**1.7**	**12**	**1.0**												

*Note: KC-130 installation reflected in OSIP 02-92.
F/A-18 installations are reflected in OSIP 10-99.

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In							1	3	3	5	5	5	5	5	4	3									
Out							1	3	3	5	5	5	5	5	4	3									

	FY 2010				FY 2011				To	Total
	1	2	3	4	1	2	3	4	Complete	
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: Crash Survivable Flight Incident Recorders (CSFIR) (OSIP 43-94)

MODELS OF SYSTEMS AFFECTED: AV-8B, F/A-18, VH-3D/60N, C/T-130, C-2, C-12, T-39, U/VP-3

TYPE MODIFICATION: Common Avionics Modification

DESCRIPTION/JUSTIFICATION: Chief of Naval Operations letter, Ser N8/5U640779 of 2 May 1995, directed the CSFIR implementation policy on Naval Aircraft. This modification will provide procurement and integrated logistics support of Navy common CSFIR and will include addressing obsolescence of commercial components. The CSFIR will be a crash hardened recorder of selective aircraft systems and position parameters to be used in support of aircraft mishap and incident investigations. RDC01-88-97 validate this modification.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Commercial off-the-shelf and non-developmental systems will be procured to the maximum extent feasible via open competition. Completed F/A-18 val/ver in 3rd quarter FY00. F/A-18 installations delayed due to war-time efforts; schedule extended out into FY06.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
CSFIR Kit	365	11.8	40	0.1	27	0.1																
Installation Kits N/R	12	20.6																				
Installation Equipment																						
CSFIR Equip	382	8.7	40	1.0	27	0.6																
Installation Equipment N/R		3.6																				
Engineering Change Orders																						
Data		1.2																				
Training Equipment	2	0.4																				
Support Equipment		3.1				*																
ILS		2.9		0.2		0.3		0.2														
Other Support		16.6		2.4		2.0		0.8														
Interim Contractor Support																						
Installation Cost	307	8.7	50	0.6	46	0.7	29	0.4														
Total Procurement		**77.7**		**4.2**		**3.7**		**1.4**														

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: F/A-18, VH-3D/60N, C/T-130, C-2, C-12, T-39, U/VP-3

MODIFICATION TITLE: Crash Survivable Flight Incident Recorders (CSFIR) (OSIP 43-94)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor or USN Field Modification Team

ADMINISTRATIVE LEADTIME: 2 Months

PRODUCTION LEADTIME: 8 Months

CONTRACT DATES: FY 2004: Jun-04 FY 2005: Dec-04 FY 2006: FY 2007:

DELIVERY DATE: FY 2004: Feb-05 FY 2005: Jul-05 FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits	307	8.7	50	0.6	8	0.1																
FY 2004 ( ) kits					38	0.6	2	*														
FY 2005 ( ) kits							27	0.4														
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	**307**	**8.7**	**50**	**0.6**	**46**	**0.7**	**29**	**0.4**														

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	307	12	12	13	13	13	13	11	9	10	10	9													
Out	307	12	12	13	13	13	13	11	9	10	10	9													

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: AN/ARC-182 Reuse Modification Program (OSIP 40-95)

MODELS OF SYSTEMS AFFECTED: P-3C, S-3B, SH-2G | TYPE MODIFICATION: Common Avionics Modification

DESCRIPTION/JUSTIFICATION: The AN/ARC-182 Modification Program will utilize previously procured AN/ARC-182 systems which will become available as the AN/ARC-210 system is retrofitted into Navy aircraft. The replaced AN/ARC-182 will be upgraded to meet the configuration needs of current AN/ARC-182 users vice procurement of a new system. The AN/ARC-182 modification will include receiver-transmitter and remote control units. Mounts, filters, switching units, and antennas will be procured by the platform OSIP to complete the aircraft AN/ARC-182 configuration requirements. ORD # W0661-CC dated 13 June 78, validates this modification.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: AN/ARC-182 is in production. Modified systems will be provided GFE to user platforms to meet aircraft installation requirements.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
AN/ARC-182 Kit																						
Installation Kits N/R																						
Installation Equipment																						
AN/ARC-182 Equip	180	0.6	5	*																		
Installation Equipment N/R																						
Engineering Change Orders																						
Data		0.2																				
Training Equipment																						
Support Equipment																						
ILS																						
Other Support		1.7		0.1																		
Interim Contractor Support																						
Installation Cost																						
Total Procurement		**2.4**		**0.1**																		

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a — Individual Modification

MODIFICATION TITLE: Ground Proximity Warning System (GPWS CAT I) Fixed Wing (OSIP 14-97)

MODELS OF SYSTEMS AFFECTED: KC-130T/F/R, VP-3, C-2A, S-3, UP-3, EA-6B, T-45 TYPE MODIFICATION: Common Avionics Modification

DESCRIPTION/JUSTIFICATION: The Ground Proximity Warning System (GPWS) is a low-cost, highly reliable stand-alone commercial set built to provide reliable integration of on-board sensor data and provides an aural warning for excessive descent rate, terrain closure rate, inadvertent descent below glideslope and descent below minimum. Commercial GPWS implementation has shown a demonstrated dramatic reduction in controlled flight into terrain incidents. ECP-130-108 increases system safety by eliminating known deficiencies and applies to military application during normal and low level mission requirements. ORD # 555-88-00 signed 1 May 00 validates this modification.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: GPWS CAT-I OPEVAL (P-3C) was successfully completed October 1993. USAF retrofitting all C-130 T/M/S with same unit as part of Autopilot Upgrade Program. USAF OPEVAL in C-130.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
GPWS CAT I Kit	134	2.1	17	0.3			39	0.5	53	0.5												
Installation Kits N/R	1	9.0		1.5				0.4		*												
Installation Equipment																						
GPWS CAT I Equip	156	8.3	17	1.2			39	2.5	53	3.0												
Installation Equipment N/R		4.0		1.8				2.1		0.4												
Engineering Change Orders																						
Data		0.7		0.2				0.1		0.1												
Training Equipment	3	1.3		0.9				0.5														
Support Equipment																						
ILS		2.1		0.5		0.3		0.9		0.7												
Other Support		22.0		8.1		1.2		6.4		3.7												
Interim Contractor Support																						
Installation Cost	122	2.9	11	0.3	9	0.4	8	0.2	39	0.8												
Total Procurement		**52.5**		**14.7**		**1.9**		**13.6**		**9.1**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. Installation qty differ from Install kits/equipment due to installation of OFT trainers listed in training material.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: KC-130T/F/R, VP-3, C-2A, S-3, UP-3, EA-6B, T-45

MODIFICATION TITLE: Ground Proximity Warning System (GPWS CAT I) Fixed Wing (OSIP 14-97)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor or USN Field Modification Team

ADMINISTRATIVE LEADTIME: 2 Months

PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2004: Feb-04 FY 2005: None FY 2006: Dec-05 FY 2007: Dec-06

DELIVERY DATE: FY 2004: Dec-04 FY 2005: FY 2006: Dec-06 FY 2007: Dec-07

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits	122	2.9	11	0.3																		
FY 2004 ( ) kits					9	0.4	8	0.2														
FY 2005 ( ) kits																						
FY 2006 ( ) kits									39	0.8												
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	**122**	**2.9**	**11**	**0.3**	**9**	**0.4**	**8**	**0.2**	**39**	**0.8**												

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	122	3	5	3		2	3	4		2	3	3			13	13	13								
Out	122	3	5	3		2	3	4		2	3	3			13	13	13								

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: Ground Proximity Warning System (GPWS CAT III) Rotary Wing (OSIP 17-98)

MODELS OF SYSTEMS AFFECTED: C/MH-53, H-46, H-60 | TYPE MODIFICATION: Common Avionics Modification

DESCRIPTION/JUSTIFICATION: The Ground Proximity Warning System (GPWS), is a low-cost, highly reliable stand-alone commercial set built to provide reliable integration of on-board sensor data and provides an aural warning for excessive rate of descent, terrain closure rate, inadvertent descent below ILS glidescope and descent below minimum. Commercial GPWS implementation has demonstrated dramatic reduction in controlled flight into terrain (CFIT) accidents. NADEP CP ECP H53-004 and H46-75 will assist pilots in preventing collisions with the ground or water. ORD # 555-88-00 signed 1 May 00 validates this modification.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: GPWS CAT III completed Milestone II in July 1993. DT was fully successful in May 1996. OPEVAL was successfully completed in August 1996. Milestone III was completed in May 1997.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
GPWS CAT III Kit	410	4.3	49	0.4																		
Installation Kits N/R		1.3																				
Installation Equipment																						
GPWS CAT III Equip **	411	18.6	49	1.9																		
Installation Equipment N/R		9.1		0.4																		
Engineering Change Orders																						
Data		1.0		*																		
Training Equipment		1.4		*																		
Support Equipment																						
ILS		1.2		*		0.1																
Other Support		19.4		3.3		1.7																
Interim Contractor Support																						
Installation Cost	358	5.7	48	1.1	51	1.2																
Total Procurement		**61.9**		**7.2**		**3.0**																

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. Two Asterisks indicate that one additional B-Kit was procured for software integration laboratory use in FY98.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: C/MH-53, H-46, H-60

MODIFICATION TITLE: Ground Proximity Warning System (GPWS CAT III) Rotary Wing (OSIP 17-98)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor or USN Depot Field Modification Team

ADMINISTRATIVE LEADTIME: 4 Months

PRODUCTION LEADTIME: 10 Months

CONTRACT DATES: FY 2004: Feb-04 FY 2005: FY 2006: FY 2007:

DELIVERY DATE: FY 2004: Dec-05 FY 2005: FY 2006: FY 2007:

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits	358	5.7	48	1.1	4	0.1																
FY 2004 ( ) kits **					47	1.1																
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	**358**	**5.7**	**48**	**1.1**	**51**	**1.2**																

**(2) kits in FY04 not installed due to loss of aircraft.

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	358	12	12	12	12	13	13	13	12																
Out	358	12	12	12	12	13	13	13	12																

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: Traffic Alert & Collision Avoidance System (TCAS) (OSIP 25-98)

MODELS OF SYSTEMS AFFECTED: C-2, C-130T, VP-3, KC-130, UP-3 | TYPE MODIFICATION: Common Avionics Modification

DESCRIPTION/JUSTIFICATION: CNO memorandum of 09 Nov 1999 directed TCAS implementation policy on Naval Aircraft. This modification will provide procurement and logistics support of a common TCAS. The TCAS will provide a display of situation awareness to aid in the prevention of midair mishaps. An ECP was approved in FY 99 to incorporate this change.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: TCAS Off-The-Shelf processor was selected. The ECP NRE effort for C-2, VP-3, and C-130T/KC-130 was accelerated and began in FY 98. Milestone III approved March FY01.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
TCAS Kit	89	6.0	14	1.2	4	0.2	19	1.1	8	0.5												
Installation Kits N/R	1	7.3																				
Installation Equipment																						
TCAS Equip	90	9.9	14	1.8	4	0.4	19	2.2	8	0.9												
Installation Equipment N/R		2.9		0.2																		
Engineering Change Orders		1.8																				
Data		1.8								0.1												
Training Equipment	8	1.6																				
Support Equipment																						
ILS		2.1		0.3		0.2		0.2		0.2												
Other Support		10.7		1.9		1.6		1.1		1.1												
Interim Contractor Support																						
Installation Cost	79	3.6	10	0.5	15	0.8	4	0.2	19	1.1												
Total Procurement		**47.6**		**5.9**		**3.3**		**4.7**		**3.9**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: C-2, C-130T, VP-3, KC-130, UP-3

MODIFICATION TITLE: Traffic Alert & Collision Avoidance System (TCAS) (OSIP 25-98)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor or USN Field Modification Team

ADMINISTRATIVE LEADTIME: 2 Months

PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2004: Jan-04 FY 2005: Dec-04 FY 2006: Dec-05 FY 2007: Dec-06

DELIVERY DATE: FY 2004: Jan-05 FY 2005: Dec-05 FY 2006: Dec-06 FY 2007: Dec-07

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits	79	3.6	10	0.5	1	0.1																
FY 2004 ( ) kits					14	0.8																
FY 2005 ( ) kits							4	0.2														
FY 2006 ( ) kits									19	1.1												
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL	**79**	**3.6**	**10**	**0.5**	**15**	**0.8**	**4**	**0.2**	**19**	**1.1**												

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	79	3	3	2	2	3	4	4	4	2	1	1		5	5	5	4								
Out	79	3	3	2	2	3	4	4	4	2	1	1		5	5	5	4								

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: Communication - Navigation - Surveillance / Air Traffic Management (CNS/ATM) Systems (OSIP 21-01)

MODELS OF SYSTEMS AFFECTED: P-3C, EP-3E, C-2A, EA-6B, KC130J, VH-3D, VH-60N, F/A-18E/F, F/A-18C/D, E-2C, MH-60S, MH-60R, F/A-18A+, H-1, CH-53E, AV-8B, TAV-8B, UP/VP-3A, NP-3C/D, MV-22B, MH-53E

TYPE MODIFICATION: Common Avionics Modification

DESCRIPTION/JUSTIFICATION: CNS/ATM provides new and enhanced Common Avionics equipment to comply with increasing ICAO (International Civil Aviation Organization) Standards and mandates. Areas impacted are worldwide, including transoceanic routes, as well as European and US National Air Space. Aircraft which are non-compliant with these standards and country mandates will be operationally delayed, circuitously rerouted, or denied access to controlled airspace. Some requirements are already in place (i.e. 8.33KHz VHF radio channels in Europe, Oct 99), while others are scheduled for implementation throughout the next several years (i.e.: RNP-4, 2003 to 2005).

Prioritization of platform type and quantity is based on mission and anticipated operation in affected airspace. Enhanced equipment includes Mode S, 8.33KHz VHF channel spacing, RNP-4 integrity, Protected Instrument Landing System (P-ILS), Multi-Mode Receiver, and cockpit processing and display capability.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:
Begin Mode S integration into P-3C in 04. Achieve IOC by 07
Begin RNP-4 integration into EA-6B by 05 . Achieve IOC by 07
Begin Integration of 8.33 KHz VHF Radio into P-3C by 05 . Achieve IOC by 2007

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
CNS/ATM Kit					13	0.6	69	3.5	122	6.9												
Installation Kits N/R				4.3		15.3		10.9		1.1												
Installation Equipment																						
CNS/ATM Equip					13	2.5	69	10.8	122	21.5												
CNS/ATM P-ILS	132	0.7	278	1.5	327	1.8																
Installation Equipment N/R				0.8		2.2				0.9												
Engineering Change Orders				0.2		0.9		1.6		1.5												
Data				0.1		0.5		0.4		0.9												
Training Equipment						4.7		6.0		4.4												
Support Equipment				*		0.4		0.5		1.1												
ILS				0.4		2.1		2.5		2.4												
Other Support		0.7		13.9		39.5		26.4		20.0												
Interim Contractor Support																						
Installation Cost					4	*	24	2.1	63	3.5												
Total Procurement		**1.4**		**21.2**		**70.5**		**64.6**		**64.1**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. A-Kits, B-Kits, and Installation cost varies due to multiple & different functionalities/systems on each aircraft T/M/S
4. B-Kits quantities differ from A-Kits where B-Kits consists of a card or module that will be integrated without A-Kit requirement.
5. Installation Kit/Installation Equipment quantities reflect number of units procurred, installation quantity reflects number of aircraft.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3C, EP-3E, C/KC-130, C-2A, EA-6B, KC130J, VH-3D, VH-60N, F/A-18E/F, F/A-18C/D E-2C, MH-60S, MH-60R, F/A-18A+, H-1, CH-53E, AV-8B, TAV-8B,UP/VP-3A, NP-3C/D, MV-22B, MH-53E

MODIFICATION TITLE: CNS/ATM (OSIP 21-01)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: USN Field Modification Team

ADMINISTRATIVE LEADTIME: 4 Months

PRODUCTION LEADTIME: 11 Months

CONTRACT DATES: FY 2004: | FY 2005: Feb-05 | FY 2006: Feb-06 | FY 2007: Feb-07

DELIVERY DATE: FY 2004: | FY 2005: Jan-06 | FY 2006: Jan-07 | FY 2007: Jan-08

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits																						
FY 2004 ( ) kits																						
FY 2005 ( ) kits					4	*	9	1.4														
FY 2006 ( ) kits							15	0.7	54	3.0												
FY 2007 ( ) kits									9	0.5												
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL					**4**	**0.0**	**24**	**2.077**	**63**	**3.5**												

**Note: E-2C GNS-350 COTS item; no production lead time.

Installation Kit/Installation Equipment quantities reflect number of units procurred, installation quantity reflects number of platforms

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In							4			6	6	6	6	15	15	16	17								
Out							4			6	6	6	6	15	15	16	17								

	FY 2010				FY 2011				To	Total
	1	2	3	4	1	2	3	4	Complete	
In										
Out										

Exhibit P-3a — Individual Modification

MODIFICATION TITLE: Tactical Aircraft Moving Map Capability (TAMMAC) (OSIP 02-02)

MODELS OF SYSTEMS AFFECTED: F/A-18C/D/E/F, AV-8B

TYPE MODIFICATION: Common Avionics Modification

DESCRIPTION/JUSTIFICATION: TAMMAC provides the aircrew an easily assimilated graphical presentation of the aircraft's position and the relative positions of targets, threats, terrain features, planned mission flight path, no fly zones, safe bases and other objects. TAMMAC will present the aircraft's current situation on a map using new or existing cockpit displays. In addition to providing a basic moving map capability, the TAMMAC system will serve as a memory resource for the overall aircraft mission system and will incorporate an improved data transfer and recording capability. This memory resource includes a data loader function of sufficient memory capacity and speed to load/update all required map theater and mission specific databases as well as the ability to record mission and maintenance data. TAMMAC will also provide a Terrain Awareness Warning System (TAWS) capability. The principle benefits anticipated, increased mission effectiveness and survivability, arise from improved situation awareness, reduced crew workload and enhanced capability for precision navigation, targeting, terrain avoidance, and mission replanning. TAMMAC is comprised of two Weapon Replaceable Assemblies (WRA), the Advanced Memory Unit (AMU) and the Digital Map Computer (DMC). The Digital Video Map Computer (DVMC) , a DMC variant, will be utilized for Lot 26 and above F/A-18E/F aircraft . The TAMMAC system will replace the existing Navy AN/ASQ-196 Digital Map Set in the older aircraft, which is facing major parts obsolescence problems and is not capable of growing to support future requirements. TAMMAC will also replace the AN/ASQ-194 Data Storage Set which has insufficient memory and loading speed to load map theater databases. DVMCs are procured to replace F/A-18E/F DMCs installed in Lot 26 and 27. The DMC will be reused in the C/D retrofit program.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:
Milestone III approved April 01.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
TAMMAC Kit			111	0.2	112	0.2	118	0.2	118	0.2												
Installation Kits N/R																						
Installation Equipment																						
TAMMAC Equip	143	5.8	61	3.7	156	9.9	153	10.3	177	11.3												
Installation Equipment N/R		*		12.2		1.0		5.5		5.8												
Engineering Change Orders				0.1		0.1		0.4		0.4												
Data		0.3				0.1		0.3		0.2												
Training Equipment						0.1		*		0.2												
Support Equipment				0.7		0.5		0.6		0.6												
ILS		0.4		0.1		0.3		0.4		0.7												
Other Support		2.6		1.7		1.5		1.5		1.5												
Interim Contractor Support																						
Installation Cost					111	1.3	112	4.0	118	4.7												
Total Procurement		**9.1**		**18.6**		**14.9**		**23.1**		**25.6**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. Difference in A and B kits reflect procurements of AMU only and DVMC retrofits - no A kit required.
4. F/A-18 OSIP # 16-01 reflects 29 AMU only procurements in FY01.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: F/A-18C/D/E/F, AV-8B

MODIFICATION TITLE: Tactical Aircraft Moving Map Capability (TAMMAC) (OSIP 02-02)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: USN Field Modification Team

ADMINISTRATIVE LEADTIME: 4 Months

PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2004: Jan-04 FY 2005: Jan-05 FY 2006: Jan-06 FY 2007: Jan-07

DELIVERY DATE: FY 2004: Jan-05 FY 2005: Jan-06 FY 2006: Jan-07 FY 2007: Jan-08

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits																						
FY 2004 ( ) kits					111	1.3																
FY 2005 ( ) kits							112	4.0														
FY 2006 ( ) kits									118	4.7												
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL					**111**	**1.3**	**112**	**4.0**	**118**	**4.7**												

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In							31	40	40		32	40	40		38	40	40								
Out							11	30	30	32	30	30	30	30	23	30	30								

	FY 2010				FY 2011				To	Total
	1	2	3	4	1	2	3	4	Complete	
In										
Out										

Exhibit P-3a — Individual Modification

MODIFICATION TITLE: Advanced Mission Computer & Displays (AMC&D)/ Multipurpose Color Display (MPCD) (OSIP 01-02)

MODELS OF SYSTEMS AFFECTED: F/A-18C/D/E/F, AV-8B, T-45 — TYPE MODIFICATION: Common Avionics Modification

DESCRIPTION/JUSTIFICATION: Advanced Mission Computer and Displays (AMC&D) System is targeted to replace existing aging/obsolete and performance limited AN/AYK-14(V) Mission Computer (MC) and Contractor Furnished Equipment Displays. AMC&D system consists of an Advanced Mission Computer (AMC) which includes Mission Processing and Display Processing, Display Heads (DH), High-Speed Data Bus interfaces with Fiber Channel Network Switches (FCNS) and an 8x10 display. AMC&D system will have modular components integrated on an Open Systems Architecture so that it can be tailored and configured for each application, and can address new performance requirements and technologies with minimum cost. AMC&D will provide improved mission computers and displays to handle increased requirement for flight, mission, and imagery data. Due to obsolescence problems with the current Multipurpose Color Display (MPCD) display, the AMC&D program is leveraging the 5x5 DH to provide a form, fit, function and interface replacement (no install funding required). MPCD production buys begin in FY02 (no installation required) and AMC&D LRIP production buys began in FY01 with FRP buys planned in FY04. The F/A-18E/F Retrofit Program (begins in FY06) goal is to achieve a 2-block configuration. Block 1 aircraft include Lots 23-25 and Block 2 includes Lots 26 and above. Block 1 will consist of replacing the AN/AYK-14 computers in Lots 23-24 and replacing the AMC with an newer configuration AMC in Lot 25. The computers are obtained as part of a reuse program from Block 2 portion of the upgrade and all Lots will require an A-kit. Lots 26 and 27 of Block 2 are provisioned to accept all WRAs for Block 2. The 06 procurement for Lots 26 consists of FCNS, displays and digital video mapping card. The 06 procurement for Lot 27 consists of displays, DVMC, and upgrade to a card in the AMC. To maintain the common block configuration, new AMCs are procured for both Lots in the out years. The AMCs removed from Lots 26 and 27 will be part of the reuse to the Block 1 configuration. The AMCs procured for Lot 28 and 29 do not require installation costs since they are a form fit function replacement for as-delivered AMCs. The systems removed from Lots 28 and 29 will be part of the reuse process. AMC&D MNS - M061-88-94 of 2 December 1994. AMC&D ORD Ser. No. 549-88-00 Approved 21 March 2000.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:
AMC and 5x5 display CDR - 2nd Qtr FY01. FCNS CDR - 4th Qtr FY01, 8x10 CDR - 2nd Qtr FY02.
F/A-18E/F: OPEVAL - 2nd Qtr FY03, Milestone III - 4th Qtr FY04, OA - 3rd Qtr FY02, FOT&E 3rd Qtr FY04.
AV-8B DT-IIB-2 - 4th Qtr FY01, OPEVAL - 4th Qtr FY02, Milestone III - 2nd Qtr FY03.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
AMC&D Kit									22	1.6												
Installation Kits N/R																						
Installation Equipment																						
AMC&D / MPCD Equip	210	23.6	55	7.1	76	9.4	121	40.1	101	29.3												
Installation Equipment N/R		1.5		18.6		9.5		11.7		6.7												
Engineering Change Orders								0.9		1.3												
Data		0.6		0.4				0.1		0.1												
Training Equipment		0.4		1.0		0.6																
Support Equipment								0.6		0.6												
ILS		1.0		1.7		1.8		2.7		3.0												
Other Support		7.5		2.3		2.0		2.6		2.4												
Interim Contractor Support																						
Installation Cost									12	0.3												
Total Procurement		**34.7**		**31.1**		**23.3**		**58.7**		**45.4**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. MPCD is a drop-in-replacement. No A-kit required.
4. B-Kit (WRA) procured in outyears are necessary to meet common block configuration.
5. See Install footnote for further clarification.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: F/A-18C/D/E/F, AV-8B, T-45

MODIFICATION TITLE: Advanced Mission Computer & Displays (AMC&D)/ Multipurpose Color Display (MPCD) (OSIP 01-02)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Prime Contractor

ADMINISTRATIVE LEADTIME: 5 Months

PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2004: ____ FY 2005: ____ FY 2006: Mar-06 FY 2007: Mar-07

DELIVERY DATE: FY 2004: ____ FY 2005: ____ FY 2006: Mar-07 FY 2007: Mar-08

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits																						
FY 2004 ( ) kits																						
FY 2005 ( ) kits																						
FY 2006 ( ) kits									12	0.3												
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL									**12**	**0.3**												

Installation Schedule

	FY 2003	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In															4	4	4								
Out															4	4	4								

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

* A-Kits, B-Kits and Installs do not align. A or B-Kits which require installation are shown.

** F/A-18's longest lead time component is 15 months.

Note 1:

F/A-18E/F Installation Equipment per Lot that have cost

Lot	**Year of Procurement**	**Description**
Lot 25	2008/2009	39 A-Kits
Lot 26	2008/09/10/11	B-Kits only
Lot 27	2006/07/08/10	B-Kits only
Lot 28	2006/07/08/09/10/11	B-Kits only- AMC's (no installation costs)
Lot 29	2006/10/11	B-Kits only- AMC's (no installation costs)

Year of Installation

2009/2010 (12 month lead time for A-kit). Lot 25 a/c will not require as extensive an A-kit because it already has AMC

2009/10/11/+ (15 month lead time) A-kit previously provisioned.

2007/08/11 (15 month lead time) A-kit previously provisioned. Only (25) 8x10 displays and FCNS require install costs.

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: Attitude Gyro Upgrade (OSIP 07-04)

MODELS OF SYSTEMS AFFECTED: CH-53E, MH-53E, CH-60S, OP-3C, HH-60H/J, P-3C, H-46, SH-60B/F/H, and MH-60R

TYPE MODIFICATION: Common Avionics Modification

DESCRIPTION/JUSTIFICATION: There are eleven (11) current attitude gyro systems in the CH-53E, MH-53E, CH-60S, EP-3C, HH-60H/J , P-3C, H-46, SH-60B/F/H, and MH-60R aircraft that are significant fleet operational and support cost drivers in the flight hour program. Two state-of-the-art Commercial-off-the-Shelf (COTS) products are available to improve readiness and reduce fleet operational and support costs in the flight hour program. The solution to the problem is to replace these obsolete gyros with a more reliable and maintainable gyro at the very lowest cost. In order to minimize time and cost for fleet introduction, replacement units shall be COTS in nature and be a form, fit, functional replacement.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Initial procurement awards were Rate Gyro's - March 2004 and Displacement Gyro's - May 2004.
COTS/NDI replacement system.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
Attitude Gyro Upgrade Kit																						
Installation Kits N/R																						
Installation Equipment																						
Attitude Upgrade Equip			68	0.8	1,115	9.4	1,173	10.3	1,316	10.5												
Installation Equipment N/R				1.4		0.4																
Engineering Change Orders																						
Data				1.0		0.2																
Training Equipment																						
Support Equipment																						
ILS																						
Other Support				1.2		4.9		2.2		2.1												
Interim Contractor Support																						
Installation Cost																						
Total Procurement				**4.4**		**14.9**		**12.4**		**12.7**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: HH-60 AHRS Reliability & Improvement (CREI) (OSIP 08-04)

MODELS OF SYSTEMS AFFECTED: HH-60H | TYPE MODIFICATION: Common Avionics Modification

DESCRIPTION/JUSTIFICATION:
The Attitude Heading Reference Systems (AHRS) Reliability Improvement initiative will address reliablity, obsolescence and support problems for the HH-60H. The replacement system, A/A24G-51 is a COTS/NDI system which replaces the gyroscope, amplifier and remote compass transmitter. This more reliable, maintainable system is currently fielded in the CH-46E platform.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:
COTS/NDI replacement system.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
AHRS Kit																						
Installation Kits N/R																						
Installation Equipment																						
AHRS Equip			15	0.6	17	0.6																
Installation Equipment N/R				0.3																		
Engineering Change Orders																						
Data				0.2																		
Training Equipment																						
Support Equipment																						
ILS						*																
Other Support																						
Interim Contractor Support																						
Installation Cost																						
Total Procurement				**1.0**		**0.7**																

Notes:
1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a — Individual Modification

MODIFICATION TITLE: Aircrew Wireless Internal Communications System (AWICS) (OSIP 09-04)

MODELS OF SYSTEMS AFFECTED: MH-53E, CH-46E, HH-60H, CH-53D/E, SH-60B/F, MH-60S/R, KC-130R/T, C-130T, KC-130J, MV-22B, C-2A, UH-3H, SH-3D, P-3 (all TMS), and UH-1

TYPE MODIFICATION: Common Avionics Modification

DESCRIPTION/JUSTIFICATION:
A wireless intercom system that will allow for unimpeded movement throughout the aircraft. This safety improvement will prevent aircrew/passenger entanglement with ICS (intercom system) cords in the event of a mishap.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: TBD.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
AWICS Kit					105	0.1	162	0.2	171	0.2												
Installation Kits N/R						0.2		0.1		0.1												
Installation Equipment																						
AWICS Equip					105	3.7	162	5.8	171	6.1												
Installation Equipment N/R					5	0.7																
Engineering Change Orders																						
Data						0.5		0.1		0.1												
Training Equipment						0.1		*		*												
Support Equipment					31	0.2																
ILS						0.3																
Other Support						1.5		1.7		1.2												
Interim Contractor Support																						
Installation Cost							105	0.2	162	0.3												
Total Procurement						**7.2**		**8.1**		**8.0**												

Notes:
1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: MH-53E, CH-46E, HH-60H, CH-53D/E, SH-60B/F, MH-60S/R, KC-130R/T, C-130T, KC-130J, MV-22B, C-2A, UH-3H, SH-3D, P-3 (all TMS), and UH-1

MODIFICATION TITLE: Aircrew Wireless Intercom Communications System (AWICS) (OSIP 09-04)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor or USN Field Modification Team

ADMINISTRATIVE LEADTIME: 5 Months

PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2004: FY 2005: Mar-05 (LRIP) FY 2006: Mar-06 FY 2007: Mar-07

DELIVERY DATE: FY 2004: FY 2005: Oct-05 FY 2006: Oct-06 FY 2007: Oct-07

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits																						
FY 2004 ( ) kits																						
FY 2005 ( ) kits							105	0.2														
FY 2006 ( ) kits									162	0.3												
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL							**105**	**0.2**	**162**	**0.3**												

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In										30	30	30	15	60	60	42									
Out										30	30	30	15	60	60	42									

	FY 2010				FY 2011				To	Total
	1	2	3	4	1	2	3	4	Complete	
In										
Out										

Exhibit P-40, BUDGET ITEM JUSTIFICATION

DATE: **February 2005**

APPROPRIATION/BUDGET ACTIVITY
Aircraft Procurement, Navy/APN-5 Aircraft Modifications

P-1 ITEM NOMENCLATURE
058100 Common Defensive Weapon System

Program Element for Code B Items:
0206614M

Other Related Program Elements

	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
QTY		A										**0**
COST (In Millions)	**0.0**	A		**7.7**	**13.8**	**13.7**					**0.0**	**35.2**

Description: The Common Defensive Weapon System is a .50 Caliber Medium Pintle Head mounted weapon system which will provide enhanced defensive and suppressive fire for Marine Corps assault support aircraft. The CDWS consists of a M3M .50 Caliber machine gun, a medium pintle head mount with recoil dampening buffers, and an aircraft integration/mounting kit. This system will increase aircraft/aircrew survivability during assault support missions by increasing the effective range and rate of fire as compared to current systems.

Basis for FY06/07 Funding: Continued Integration of the Common Defensive Weapon System on CH-53D/E and CH-46 assault support helicopters. FY06 funding completes the outfitting of all USMC CH53D/E helicopters and begins the CH-46. FY07 funding continues the outfitting of the CH-46. Additional funding is required to outfit the UH-1Y and four squadrons of the MV-22B.

(TOA, $ in Millions)

OSIP No.	Description	Prior Years	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
003-06	COMMON DEFENSE WEAPON SYS			7.7	13.8	13.7					0.0	**35.2**
TOTAL				**7.7**	**13.8**	**13.7**					**0.0**	**35.2**

Exhibit P-3a | Individual Modification | Date: **February 2005**

MODIFICATION TITLE: Common Defensive Weapon System (OSIP 003-06)

MODELS OF SYSTEMS AFFECTED: CH-53D/E, CH-46, UH1, V-22 | TYPE MODIFICATION: MISSION/MISSION ENHANCEMENT

DESCRIPTION/JUSTIFICATION: The Common Defensive Weapon System is a .50 Caliber Medium Pintle Head mounted weapon system which will provide enhanced defensive and suppressive fire for Marine Corps assault support aircraft. The CDWS consists of a M3M .50 Caliber machine gun, a medium pintle head mount with recoil dampening buffers, and an aircraft integration/mounting kit. This system will increase aircraft/aircrew survivability during assault support missions by increasing the effective range and rate of fire as compared to current systems.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The M3M .50 Caliber Machine Gun is a COTS item ready for deployment on Marine Corps assault support aircraft (CH-46, CH-53, and UH-1, V-22). The MPH and aircraft integration kit's base designs are also COTS though kit modifications for each T/M/S aircraft must still be finalized. FY06/07 efforts will focus on continuing the integration of the CH-53D/E and CH-46 aircraft with CDWS. All non-recurring engineering efforts were completed during FY03 under BLI 052800, H-53 Series, OSIP 18-03. Total does not include FY04 OIF supplemental received under H-53 Series, OSIP 18-03.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits					**127**	**4.4**	**235**	**8.2**	**242**	**8.5**												
CH-53D/E					127	4.4	200	7.0														
CH-46							35	1.2	242	8.5												
UH-1																						
V-22																						
Installation Kits N/R								-														
Installation Equipment					**127**	**2.2**	**235**	**4.0**	**242**	**4.1**												
CH-53D/E					127	2.2	200	3.4														
CH-46							35	0.6	242	4.1												
UH-1																						
V-22																						
Installation Equipment N/R																						
Engineering Change Orders																						
Data								**0.4**														
Training Equipment																						
Support Equipment																						
ILS						**0.8**		**0.9**		**0.9**												
Other Support						**0.2**		**0.3**		**0.3**												
Interim Contractor Support																						
Installation Cost																						
Total Procurement						**7.7**		**13.8**		**13.7**												

Notes:

1. Totals may not add due to rounding

2. Asterisk indicates amount less than $50K

CLASSIFICATION: UNCLASSIFIED

Exhibit P-40, BUDGET ITEM JUSTIFICATION

DATE: **February 2005**

APPROPRIATION/BUDGET ACTIVITY
Aircraft Procurement, Navy/APN-5 Aircraft Modifications

P-1 ITEM NOMENCLATURE
ID SYSTEMS

Program Element for Code B Items:

Other Related Program Elements

	Prior Years	ID Code	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	To Complete	Total
QTY		B										
COST (In Millions)		B		**1.6**	**7.7**	**11.2**	**11.4**	**6.7**	**24.2**	**30.9**	**147.0**	**240.7**

DESCRIPTION/JUSTIFICATION:
MK XIIA Mode 5 provides improved secure cooperative combat identification throughout Identification Friend or Foe (IFF). MODE 5 is a product improvement which is designed to be installed throughout engineering changes to digital MK XII interrogators and transponders including the APX-117, APX-118, UPX-37, APX-111, and RT-1832. MODE 5 is designed to be installed in all Navy T/M/S aircraft which are currently MODE 4 IFF capable (49 T/M/S aircraft). MODE 5 is developed in cooperation with NATO and is governed by STANAG 4193. MODE 5 was designated a "JROC special interest" program in March 2001 and is interoperable across all services. ORD # 577-06-01. FY06 funding will be used for Mode 5 Engineering Change Proposal (ECP) non-recurring integration efforts for the F/A-18 and the EA-6B.

FY03 funding for this OSIP resides in BLI 052500 under OSIP number 15-03.

(TOA, $ in Millions)

OSIP No.	Description	Prior Years	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	To Complete	Total
15-03	MARK XIIA Mode 5 IFF			1.6	7.7	11.2	11.4	6.7	24.2	30.9	**147.0**	**240.7**
Total				**1.6**	**7.7**	**11.2**	**11.4**	**6.7**	**24.2**	**30.9**	**147.0**	**240.7**

Note: Totals may not add due to rounding.

Exhibit P-3a — Individual Modification

MODIFICATION TITLE: MARK XIIA MODE 5 IFF OSIP (15-03)

MODELS OF SYSTEMS AFFECTED: VARIOUS (49 Separate T/M/S) — TYPE MODIFICATION: CAPABILITY IMPROVEMENT

DESCRIPTION/JUSTIFICATION:
MK XIIA Mode 5 provides improved secure cooperative combat identification throughout IFF. MODE 5 is a product improvement which is designed to be installed throughout engineering changes to digital MK XII interrogators and transponders including the APX-117, APX-118, UPX-37, APX-111, and RT-1832. MODE 5 is designed to be installed in all Navy T/M/S aircraft which are currently MODE 4 IFF capable (49 T/M/S aircraft). MODE 5 is developed in cooperation with NATO and is governed by STANAG 4193. MODE 5 was designated a "JROC special interest" program in March 2001 and is interoperable across all services. ORD # 577-06-01

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: MODE 5 completed a brassboard development in December 1997. Modeling and Simulation to demonstrate interoperability was completed in February of 1998 to support NATO STANAG development. Proof of concept flight testing completed in December 1999. A Preliminary Design Review (PDR) for the proposed ICP to incorporate MODE 5 in the APX-118 was completed in July 2001. Contracts to develop a prototype Cryptographic Module and ECP kit are presently being executed. Milestone B was completed in May 2003. Milestone C is scheduled for September 2005.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E		31.7		10.3		5.6		14.5		13.6												
PROCUREMENT																						
Installation Kits																						
PLATFORM Installation A-Kits									107	1.1												
Installation Kits N/R						1.1		0.2		0.2												
Installation Equipment																						
Mode 5 IFF HARDWARE B-KIT									107	1.7												
Installation Equipment N/R						0.4		6.1		6.4												
Engineering Change Orders																						
Data										0.1												
Training Equipment						*		0.2		0.2												
Support Equipment								0.2		0.2												
ILS								0.3		0.3												
Other Support								0.7		1.1												
Interim Contractor Support																						
Installation Cost																						
Total Procurement						**1.6**		**7.7**		**11.2**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **VARIOUS (49 Separate T/M/S)** MODIFICATION TITLE: MARK XIIA MODE 5 IFF OSIP (15-03)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **FIELD INSTALL KITS and VENDOR DEPOT ECP INSTALLATION**

ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 11 Months

CONTRACT DATES: FY 2004: N/A FY 2005: N/A FY 2006: N/A FY 2007: Nov-06

DELIVERY DATE: FY 2004: N/A FY 2005: N/A FY 2006: N/A FY 2007: Oct-07

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY ( ) kits																						
FY 2004 ( ) kits																						
FY 2005 ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
To Complete ( ) kits																						
TOTAL																						

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In																									
Out																									

	FY 2010				FY 2011				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-40, BUDGET ITEM JUSTIFICATION | DATE: **February 2005**

APPROPRIATION/BUDGET ACTIVITY: **Aircraft Procurement, Navy/APN-5 Aircraft Modifications**

P-1 ITEM NOMENCLATURE: **MV-22 MODIFICATION**

Program Element for Code B Items:

Other Related Program Elements

	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
QTY		A										
COST (In Millions)	**53.5**	A	**6.8**	**3.4**	**81.0**	**85.6**	**46.8**	**25.1**	**25.6**	**26.1**	**1,750.1**	**2,104.0**

The V-22 is a tilt-rotor, vertical takeoff and landing aircraft currently being developed for joint service application. The program is being designed to provide an aircraft to meet the amphibious/vertical assault needs of the Marine Corps, the strike rescue needs of the Navy, and supplement USSOCOM special mission aircraft. The aircraft will be capable of flying 2,100 miles with one refueling, giving the Services the advantage of a Vertical/Short Takeoff and Landing (V/STOL) aircraft the could rapidly self-deploy to any location in the world.

The FY 2006 budget request reflects the funding level necessary to correct currently known deficiencies and allow the program to move forward. The FY 2006 modifications program procures retrofit kits necessary to correct discrepancies identified during initial flight testing as well as those resulting from any redesign efforts.

The current procurement objective is 458: 360 MV-22 Marine Corps aircraft, 48 HV-22 Navy aircraft, and 50 CV-22 aircraft for USSOCOM.

(TOA, $ in Millions)

OSIP No.	Description	Prior Years	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
22-01	**MV-22 Correction of Deficiencies and Pre Block A through C**	**53.5**	**6.8**	**3.4**	**81.0**	**85.6**	**46.8**	**25.1**	**25.6**	**26.1**	**1,750.1**	**2,104.0**
	Total	**53.5**	**6.8**	**3.4**	**81.0**	**85.6**	**46.8**	**25.1**	**25.6**	**26.1**	**1,750.1**	**2,104.0**

Note: Totals may not add due to rounding.

Exhibit P-3a Individual Modification

MODIFICATION TITLE: **V-22 CORRECTIONS OF DEFICIENCIES AND PRE BLOCK A THROUGH C**

MODELS OF SYSTEMS AFFECTED: **MV-22** **TYPE MODIFICATION: SAFETY, RELIABILITY, INCREASED SERVICE LIFE, IMPROVED MISSION CAPABILITY**

DESCRIPTION/JUSTIFICATION:

Future ECPs:

PRE BLOCK A, BLOCK A, BLOCK B, and BLOCK C: Major configuration changes are associated with the aircraft Propulsion/Drive, Electrical, Avionics, Hydraulics, Structure/Airframe, Fuel, Software, and Environmental Control System (ECS). Specifically included are Nacelle changes, Avionics, Blade Fold Harness, Fuel Probe, Active Vibration Suppression System, Constant Frequency Generator and Variable Frequency Generator. Additional configuration changes include Effectiveness and Suitability and Enhanced Capability. ECPs for (R&M changes, Ice Protection and Clam Shell Doors) are configuration items associated with production Block A, Block B, and Block C changes. Aircraft Retrofits are implemented to coincide with resources and aircraft availability , stand-alone retrofit ECPs are generated. These Retrofit ECPs are the implemention of the approved production Block Configuration changes.

ECP-344:
REGULATED CONVERTER: Incorporates fixes to alleviate concerns associated with spec compliance and eliminate nuisance failures for fleet aircraft.
SHAFT DRIVEN COMPRESSOR SCREEN: Incorporates a new shaft drive compressor screen with one piece inner and outer frames to reduce the number of parts and larger holes to increase air flow.
RAMP ACTUATOR: Incorporates fixes for reliability and life limit deficiencies. There are two ramp actuators per aircraft.
CARGO RESTRAINT SYSTEM: Changes the cargo restraint factors from a dynamic to a static tie down system to improve Fleet suitability.
FUEL ISOLATION TUBES: Incorporates the productionized final design for resistive tubes on hoses for lightning strike protection.
AVIONICS: Avionics modifications to the V-22 will improve display reliability, eliminate communication security issues and alleviate parts obsolescence/vendor problems. Changes to the V-22 avionics will include: Display System upgrade, Cockpit Inter Communication System modification, upgraded Mission Computer, updated Data Transfer Module, Control Display Unit/Engine Instrument Caution Advisory System upgrade, Control Display Unit Keyboard upgrad, and Avionics Interface Units upgrades.
POWER TRANSMISSION AND CONTROL: Changes to the V-22 Power Transmission and Control System will improve reliability and maintainability. Changes to the V-22 Power Transmission and Control System will include: swashplate reliability upgrades, engine gimbal ring/spherical bearing installation revision, updated refuel/defuel valve, bull gear shroud and engine gimbal ring.
COCKPIT: Changes to the V-22 cockpit will improve crew safety, mission suitability and overall reliability. Changes to the V-22 cockpit include: night vision goggle compatible hardware, upgraded inertial reels, upgraded pilot and co-pilot restraint system, throttle control lever soft stop modification, and improved rain removal.
STRUCTURAL: Structural changes to the V-22 will increase survivability, improve maintainability and aircraft availability, eliminate component interferences, improve suitability and correct safety related issues. Structural changes include: forward sponson fuel bladder access redesign/install powder panels, environmental control unit Ram air barrier filter, avionics left hand mounting tray, aft upper door strut, add manual drive decal, fold blades in high winds and modified trunnion fitting.
PRODUCTION ROTOR LIGHTING PROTECTION: Improves rotor system lighting protection by adding improved bonding harness and grounding strap bracket.
BRACKET HYDRAULIC LINE CLAMPING: Relocate clamping provisions from the removable conversion actuator fairing to the frame and improve the tube installation.
SWASHPLATE DRAG TUBE: Redesign Swashplate Drag Tube to increase part life.
WASHER: Washer to now be included with attach hardware to ensure adequate tying of the assembly.
RELIABILITY & MAINTAINABILITY FIXES: Includes Corrective Action Plans to make the aircraft compliant with Operation Requirements Document requirements.

ECP-400:
AIRCRAFT MAINTENANCE TRAINER: Improves training and pilot proficiency by incorporating modifications to the AMT #1 to reflect most current aircraft configuration as directed by Blue Ribbon Panel.

ECP-397:
FULL FIDELITY SIMULATOR (FFS) UPGRADES: Improves training and pilot proficiency by incorporating modifications to the FFS #1 & #2 to reflect most current aircraft configuration as directed by Blue Ribbon Panel.
FLIGHT TRAINING DEVICE (FTD) UPGRADES: Improves training and pilot proficiency by incorporating modifications to the FTD #1 to reflect most current aircraft configuration as directed by Blue Ribbon Panel.

ECP-427R1:
MECHANICAL PART TASK TRAINER: Improves maintainer and aircrew proficiency by incorporating Block 'A' configuration changes.

ECP-451:
INTERACTIVE MULTIMEDIA INSTRUCTION: Improves maintainer and aircrew proficiency by incorporating Block 'A' configuration changes.

ECP-511:
AIRFRAME PART TASK TRAINER , Incorporate Block 'B' configuration changes.

ECP-###:
AMT #2, Improves training and pilot proficiency by incorporating modifications to the AMT #2 to reflect most current Block A and Block B aircraft configuration.

ECP-###: Forward Engine Air Bleed, Redesigned Air tube will improve reliability and increase aircraft safety.

ECP-###: Plugs & Covers, Redesigned plugs and covers to meet durability and operational suitability.

ECP-###: Lightweight Paint, improves aircraft suitability and reduces IR Vulnerability.

ECP-###: Cargo Hook Door Actuator, new design improves cargo hook door reliability and operational suitability.

ECP-###: NLG Shock Struts, Nose Landing Gear shock struts are a life limited part, redesigned struts will eliminate safety of flight issue.

ECP-493: Wheel & Brake, Redesign to improve reliability on the wheel, brake and components.

ECP-470: Lateral Mass Balance, design change that will increase lateral mass balance by 9 lbs and add new pads, tungsten plates and bellcrank.

ECP-471: Life Raft, designed for 20-man raft with overflow capacity to 30-man.

ECP-478: SDC Duct Leak Switch Set Point, Reliability change to SDC duct leak switches to reduce false alarm pilot nuisance alarms.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:
The MV-22 aircraft are currently in Low Rate Production. First acceptance and incorporation has been in production aircraft. All Awarded Kit deliveries and Installations are on schedule.
Installs: (284) does not include O-Level Installations at New River.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
ECP V-22-0344 Correction of Deficiency																						
CCP10641R2/Display System Upgrade/Flat Panels	8	2.2																				
CCP 10670R1/Implementation of Cockpit Intercom Mod	8	0.3																				
CCP10703r1/Advanced Mission Computer Post Part Number Roll	8	3.0																				
CCP10716/Swashplate Actuator	8	2.1																				
CCP 10718/Eng Gimbaling Ring Spherical Bearing Instl	4	0.3																				
CCP 40008/Night Vision Goggles Compatibility Rqmt Cockpit Hardware	8	0.2																				
CCP V-22-0161/Shaft Driven Compressor Reliability Improvementl	8	0.3																				
CCP V-22-0177R1/Instl Pwdr Panels, Fwd Sponsor Fuel Bladder Access Redesign	8	2.6																				
CCP V-22-0188/Data Transfer Module Proposal	8	0.4																				
CCP V-22-0192R1/Regulated Converter	8	2.0																				
CCP V-22-0206/Inertial Reels	8	0.2																				
CCP V-22-0216/Control Display Unit/Engine Instru. Crew Alerting System Redesign	8	1.0																				
CCP V-22-0217/Shaft Driven Compressor	8	0.1																				
CCP V-22-0224/Avionics Left Hand Mounting Tray	8	0.2																				
CCP V-22-0249/Environmental Control Unit Ram Air Barrier Filter	8	2.6																				
CCP V-22-0279/Update Ramp Actuator - 113	8	1.4																				
CCP V-22-0290/Pilot/Copilot Restraint Sys																						
CCP V-22-0296/Cargo Restraint System																						
CCP V-22-0301/Control Display Unit Keyboard Redesign	8	0.6																				
CCP V-22-0319/Refuel/Defuel Valve	8	0.4																				
CCP V-22-0107/Thrust Control Lever Soft Stop	2	0.1																				
CCP V-22-0138/Aft Upper Door Strut	8	0.1																				
CCP V-22-0147/Rain Removal	6	0.2																				
CCP V-22-0151/Add Manual Drive Decal	4	*																				
CCP V-22-0160/Fold Blades in High Winds																						
CCP V-22-0162/Bull Gear Shroud																						
CCP V-22-0163/Swashplate Gimbal Ring	8	0.6																				
CCP V-22-0208/Fuel Isolation Tubes	8	0.3																				
CCP 10692/Trunnion	8	0.8																				
CCP-TBD Reliability and Maintainability Changes																						
CCP TBD NACELLE Safety Improvements																						
ECP V-22-0348/Interface Units	8	0.3																				
Block A to B (9 A/C) (Lot 5, 41-49)									9	44.0												
Block A to C (0) (12-24)																						
Block B to C (120 A/C)																						
Wheel & Brake							24	0.8	4	0.1												
Ice Protection Blk "B" (20 A/C) (Lot 6 & 7)									20	12.8												
Lateral Mass Balance			9	*																		
Life Rafts			3	*																		
SDC Duct Leak Switch Set Point			19	*																		
Suction Lift Pump Bypass Valve			20	0.1																		
Climb Dive Valve					28	0.3																
Clam Shell Doors																						
Shock Struts							29	0.5														
FWD Engine Air Bleed							38	0.7														
Plugs & Covers							27	0.6														
Lightweight Paint							5	0.6														
Cargo Hook Door Actuator							14	0.4														
Installation Kits N/R		3.5						11.7		2.0												
Installation Equipment																						
XXX Equip																						
Installation Equipment N/R		0.6																				
Engineering Change Orders																						
XXX Kit ECO XXX																						
XXX Equip ECO XXX																						
Data		0.2		*				0.3		0.3												
Training Equipment	4	24.5	2	6.0	1	2.8	15	60.8	2	11.7												
Support Equipment				0.1		0.2		2.0		2.5												
ILS		1.0																				
Other Support								2.2		3.4												
Interim Contractor Support																						
Installation Cost	2	1.4		0.5	11	0.2	21	0.3	53	8.8												
TOTAL PROCUREMENT		**53.5**		**6.8**		**3.4**		**81.0**		**85.6**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **MV-22** MODIFICATION TITLE: SAFETY, RELIABILITY, INCREASED SERVICE LIFE, IMPROVED MISSION CAPABILITY

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION:

ADMINISTRATIVE LEADTIME: Various Months PRODUCTION LEADTIME: Various Months

CONTRACT DATES: FY 2004: Various FY 2005: Various FY 2006: Various FY 2007: Various

DELIVERY DATE: FY 2004: Various FY 2005: Various FY 2006: Various FY 2007: Various

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY (2) kits	2	1.4																				
FY 2004 (11) kits				0.5	11	0.2																
FY 2005 (21) kits							21	0.3														
FY 2006 (53) kits									53	8.8												
FY 2007 (35) kits																						
FY 2008 (16) kits																						
FY 2009 (1) kits																						
FY 2010 (13) kits																						
FY 2011 (0) kits																						
To Complete (132) kits																						
TOTAL	**2**	**1.4**		**0.5**	**11**	**0.2**	**21**	**0.3**	**53**	**8.8**												

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	2					11				21				53											
Out	2							11				10	11		13	13	13								

	FY 2010				FY 2011				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										
Out										

Exhibit P-40, BUDGET ITEM JUSTIFICATION | DATE: **February 2005**

APPROPRIATION/BUDGET ACTIVITY: **Aircraft Procurement, Navy/APN-5 Aircraft Modifications**

P-1 ITEM NOMENCLATURE: **MV-22 MODIFICATION**

Program Element for Code B Items:

Other Related Program Elements

	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
QTY		A										
COST (In Millions)	**53.5**	A	**6.8**	**3.4**	**81.0**	**85.6**	**46.8**	**25.1**	**25.6**	**26.1**	**1,750.1**	**2,104.0**

The V-22 is a tilt-rotor, vertical takeoff and landing aircraft currently being developed for joint service application. The program is being designed to provide an aircraft to meet the amphibious/vertical assault needs of the Marine Corps, the strike rescue needs of the Navy, and supplement USSOCOM special mission aircraft. The aircraft will be capable of flying 2,100 miles with one refueling, giving the Services the advantage of a Vertical/Short Takeoff and Landing (V/STOL) aircraft the could rapidly self-deploy to any location in the world.

The FY 2006 budget request reflects the funding level necessary to correct currently known deficiencies and allow the program to move forward. The FY 2006 modifications program procures retrofit kits necessary to correct discrepancies identified during initial flight testing as well as those resulting from any redesign efforts.

The current procurement objective is 458: 360 MV-22 Marine Corps aircraft, 48 HV-22 Navy aircraft, and 50 CV-22 aircraft for USSOCOM.

(TOA, $ in Millions)

OSIP No.	Description	Prior Years	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
22-01	**MV-22 Correction of Deficiencies and Pre Block A through C**	**53.5**	**6.8**	**3.4**	**81.0**	**85.6**	**46.8**	**25.1**	**25.6**	**26.1**	**1,750.1**	**2,104.0**
	Total	**53.5**	**6.8**	**3.4**	**81.0**	**85.6**	**46.8**	**25.1**	**25.6**	**26.1**	**1,750.1**	**2,104.0**

Note: Totals may not add due to rounding.

Exhibit P-3a Individual Modification

MODIFICATION TITLE: **V-22 CORRECTIONS OF DEFICIENCIES AND PRE BLOCK A THROUGH C**

MODELS OF SYSTEMS AFFECTED: **MV-22** **TYPE MODIFICATION: SAFETY, RELIABILITY, INCREASED SERVICE LIFE, IMPROVED MISSION CAPABILITY**

DESCRIPTION/JUSTIFICATION:

Future ECPs:

PRE BLOCK A, BLOCK A, BLOCK B, and BLOCK C: Major configuration changes are associated with the aircraft Propulsion/Drive, Electrical, Avionics, Hydraulics, Structure/Airframe, Fuel, Software, and Environmental Control System (ECS). Specifically included are Nacelle changes, Avionics, Blade Fold Harness, Fuel Probe, Active Vibration Suppression System, Constant Frequency Generator and Variable Frequency Generator. Additional configuration changes include Effectiveness and Suitability and Enhanced Capability. ECPs for (R&M changes, Ice Protection and Clam Shell Doors) are configuration items associated with production Block A, Block B, and Block C changes. Aircraft Retrofits are implemented to coincide with resources and aircraft availability , stand-alone retrofit ECPs are generated. These Retrofit ECPs are the implemention of the approved production Block Configuration changes.

ECP-344:
REGULATED CONVERTER: Incorporates fixes to alleviate concerns associated with spec compliance and eliminate nuisance failures for fleet aircraft.
SHAFT DRIVEN COMPRESSOR SCREEN: Incorporates a new shaft drive compressor screen with one piece inner and outer frames to reduce the number of parts and larger holes to increase air flow.
RAMP ACTUATOR: Incorporates fixes for reliability and life limit deficiencies. There are two ramp actuators per aircraft.
CARGO RESTRAINT SYSTEM: Changes the cargo restraint factors from a dynamic to a static tie down system to improve Fleet suitability.
FUEL ISOLATION TUBES: Incorporates the productionized final design for resistive tubes on hoses for lightning strike protection.
AVIONICS: Avionics modifications to the V-22 will improve display reliability, eliminate communication security issues and alleviate parts obsolescence/vendor problems. Changes to the V-22 avionics will include: Display System upgrade, Cockpit Inter Communication System modification, upgraded Mission Computer, updated Data Transfer Module, Control Display Unit/Engine Instrument Caution Advisory System upgrade, Control Display Unit Keyboard upgrad, and Avionics Interface Units upgrades.
POWER TRANSMISSION AND CONTROL: Changes to the V-22 Power Transmission and Control System will improve reliability and maintainability. Changes to the V-22 Power Transmission and Control System will include: swashplate reliability upgrades, engine gimbal ring/spherical bearing installation revision, updated refuel/defuel valve, bull gear shroud and engine gimbal ring.
COCKPIT: Changes to the V-22 cockpit will improve crew safety, mission suitability and overall reliability. Changes to the V-22 cockpit include: night vision goggle compatible hardware, upgraded inertial reels, upgraded pilot and co-pilot restraint system, throttle control lever soft stop modification, and improved rain removal.
STRUCTURAL: Structural changes to the V-22 will increase survivability, improve maintainability and aircraft availability, eliminate component interferences, improve suitability and correct safety related issues. Structural changes include: forward sponson fuel bladder access redesign/install powder panels, environmental control unit Ram air barrier filter, avionics left hand mounting tray, aft upper door strut, add manual drive decal, fold blades in high winds and modified trunnion fitting.
PRODUCTION ROTOR LIGHTING PROTECTION: Improves rotor system lighting protection by adding improved bonding harness and grounding strap bracket.
BRACKET HYDRAULIC LINE CLAMPING: Relocate clamping provisions from the removable conversion actuator fairing to the frame and improve the tube installation.
SWASHPLATE DRAG TUBE: Redesign Swashplate Drag Tube to increase part life.
WASHER: Washer to now be included with attach hardware to ensure adequate tying of the assembly.
RELIABILITY & MAINTAINABILITY FIXES: Includes Corrective Action Plans to make the aircraft compliant with Operation Requirements Document requirements.

ECP-400:
AIRCRAFT MAINTENANCE TRAINER: Improves training and pilot proficiency by incorporating modifications to the AMT #1 to reflect most current aircraft configuration as directed by Blue Ribbon Panel.

ECP-397:
FULL FIDELITY SIMULATOR (FFS) UPGRADES: Improves training and pilot proficiency by incorporating modifications to the FFS #1 & #2 to reflect most current aircraft configuration as directed by Blue Ribbon Panel.
FLIGHT TRAINING DEVICE (FTD) UPGRADES: Improves training and pilot proficiency by incorporating modifications to the FTD #1 to reflect most current aircraft configuration as directed by Blue Ribbon Panel.

ECP-427R1:
MECHANICAL PART TASK TRAINER: Improves maintainer and aircrew proficiency by incorporating Block 'A' configuration changes.

ECP-451:
INTERACTIVE MULTIMEDIA INSTRUCTION: Improves maintainer and aircrew proficiency by incorporating Block 'A' configuration changes.

ECP-511:
AIRFRAME PART TASK TRAINER , Incorporate Block 'B' configuration changes.

ECP-###:
AMT #2, Improves training and pilot proficiency by incorporating modifications to the AMT #2 to reflect most current Block A and Block B aircraft configuration.

ECP-###: Forward Engine Air Bleed, Redesigned Air tube will improve reliability and increase aircraft safety.

ECP-###: Plugs & Covers, Redesigned plugs and covers to meet durability and operational suitability.

ECP-###: Lightweight Paint, improves aircraft suitability and reduces IR Vulnerability.

ECP-###: Cargo Hook Door Actuator, new design improves cargo hook door reliability and operational suitability.

ECP-###: NLG Shock Struts, Nose Landing Gear shock struts are a life limited part, redesigned struts will eliminate safety of flight issue.

ECP-493: Wheel & Brake, Redesign to improve reliability on the wheel, brake and components.

ECP-470: Lateral Mass Balance, design change that will increase lateral mass balance by 9 lbs and add new pads, tungsten plates and bellcrank.

ECP-471: Life Raft, designed for 20-man raft with overflow capacity to 30-man.

ECP-478: SDC Duct Leak Switch Set Point, Reliability change to SDC duct leak switches to reduce false alarm pilot nuisance alarms.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:
The MV-22 aircraft are currently in Low Rate Production. First acceptance and incorporation has been in production aircraft. All Awarded Kit deliveries and Installations are on schedule.
Installs: (284) does not include O-Level Installations at New River.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY2009		FY2010		FY2011		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
ECP V-22-0344 Correction of Deficiency																						
CCP10641R2/Display System Upgrade/Flat Panels	8	2.2																				
CCP 10670R1/Implementation of Cockpit Intercom Mod	8	0.3																				
CCP10703r1/Advanced Mission Computer Post Part Number Roll	8	3.0																				
CCP10716/Swashplate Actuator	8	2.1																				
CCP 10718/Eng Gimbaling Ring Spherical Bearing Instl	4	0.3																				
CCP 40008/Night Vision Goggles Compatibility Rqmt Cockpit Hardware	8	0.2																				
CCP V-22-0161/Shaft Driven Compressor Reliability Improvementl	8	0.3																				
CCP V-22-0177R1/Instl Pwdr Panels, Fwd Sponsor Fuel Bladder Access Redesign	8	2.6																				
CCP V-22-0188/Data Transfer Module Proposal	8	0.4																				
CCP V-22-0192R1/Regulated Converter	8	2.0																				
CCP V-22-0206/Inertial Reels	8	0.2																				
CCP V-22-0216/Control Display Unit/Engine Instru. Crew Alerting System Redesign	8	1.0																				
CCP V-22-0217/Shaft Driven Compressor	8	0.1																				
CCP V-22-0224/Avionics Left Hand Mounting Tray	8	0.2																				
CCP V-22-0249/Environmental Control Unit Ram Air Barrier Filter	8	2.6																				
CCP V-22-0279/Update Ramp Actuator - 113	8	1.4																				
CCP V-22-0290/Pilot/Copilot Restraint Sys																						
CCP V-22-0296/Cargo Restraint System																						
CCP V-22-0301/Control Display Unit Keyboard Redesign	8	0.6																				
CCP V-22-0319/Refuel/Defuel Valve	8	0.4																				
CCP V-22-0107/Thrust Control Lever Soft Stop	2	0.1																				
CCP V-22-0138/Aft Upper Door Strut	8	0.1																				
CCP V-22-0147/Rain Removal	6	0.2																				
CCP V-22-0151/Add Manual Drive Decal	4	*																				
CCP V-22-0160/Fold Blades in High Winds																						
CCP V-22-0162/Bull Gear Shroud																						
CCP V-22-0163/Swashplate Gimbal Ring	8	0.6																				
CCP V-22-0208/Fuel Isolation Tubes	8	0.3																				
CCP 10692/Trunnion	8	0.8																				
CCP-TBD Reliability and Maintainability Changes																						
CCP TBD NACELLE Safety Improvements																						
ECP V-22-0348/Interface Units	8	0.3																				
Block A to B (9 A/C) (Lot 5, 41-49)									9	44.0												
Block A to C (0) (12-24)																						
Block B to C (120 A/C)																						
Wheel & Brake							24	0.8	4	0.1												
Ice Protection Blk "B" (20 A/C) (Lot 6 & 7)									20	12.8												
Lateral Mass Balance			9	*																		
Life Rafts			3	*																		
SDC Duct Leak Switch Set Point			19	*																		
Suction Lift Pump Bypass Valve			20	0.1																		
Climb Dive Valve					28	0.3																
Clam Shell Doors																						
Shock Struts							29	0.5														
FWD Engine Air Bleed							38	0.7														
Plugs & Covers							27	0.6														
Lightweight Paint							5	0.6														
Cargo Hook Door Actuator							14	0.4														
Installation Kits N/R		3.5						11.7		2.0												
Installation Equipment																						
XXX Equip																						
Installation Equipment N/R		0.6																				
Engineering Change Orders																						
XXX Kit ECO XXX																						
XXX Equip ECO XXX																						
Data		0.2		*				0.3		0.3												
Training Equipment	4	24.5	2	6.0	1	2.8	15	60.8	2	11.7												
Support Equipment				0.1		0.2		2.0		2.5												
ILS		1.0																				
Other Support								2.2		3.4												
Interim Contractor Support																						
Installation Cost	2	1.4		0.5	11	0.2	21	0.3	53	8.8												
TOTAL PROCUREMENT		**53.5**		**6.8**		**3.4**		**81.0**		**85.6**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **MV-22** MODIFICATION TITLE: SAFETY, RELIABILITY, INCREASED SERVICE LIFE, IMPROVED MISSION CAPABILITY

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION:

ADMINISTRATIVE LEADTIME: Various Months PRODUCTION LEADTIME: Various Months

CONTRACT DATES: FY 2004: Various FY 2005: Various FY 2006: Various FY 2007: Various

DELIVERY DATE: FY 2004: Various FY 2005: Various FY 2006: Various FY 2007: Various

($ in Millions)

Cost:	Prior Years		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2003 & PY (2) kits	2	1.4																				
FY 2004 (11) kits				0.5	11	0.2																
FY 2005 (21) kits							21	0.3														
FY 2006 (53) kits									53	8.8												
FY 2007 (35) kits																						
FY 2008 (16) kits																						
FY 2009 (1) kits																						
FY 2010 (13) kits																						
FY 2011 (0) kits																						
To Complete (132) kits																						
TOTAL	**2**	**1.4**		**0.5**	**11**	**0.2**	**21**	**0.3**	**53**	**8.8**												

Installation Schedule

	FY 2003 & Prior	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	2					11				21				53											
Out	2							11				10	11		13	13	13								

	FY 2010				FY 2011				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										
Out										

DEPARTMENT OF THE NAVY
FISCAL YEAR (FY) 2006/FY 2007
BUDGET ESTIMATES

JUSTIFICATION OF ESTIMATES
FEBRUARY 2005

AIRCRAFT PROCUREMENT, NAVY
Volume III:
BUDGET ACTIVITY 7

DEPARTMENT OF THE NAVY
FY 2006 PROCUREMENT PROGRAM EXHIBIT P-1

APPROPRIATION: 1506N AIRCRAFT PROCUREMENT, NAVY DATE: FEBRUARY 2005

LINE NO	ITEM NOMENCLATURE	IDENT CODE	MILLIONS OF DOLLARS FY 2004 QUANTITY	FY 2004 COST	FY 2005 QUANTITY	FY 2005 COST	FY 2006 QUANTITY	FY 2006 COST	SEC
BUDGET ACTIVITY 07: AIRCRAFT SUPPORT EQUIPMENT & FACILITIES									
	AIRCRAFT SUPPORT EQUIPMENT AND FACILITIES								
55	COMMON GROUND EQUIPMENT	A		453.9		489.6		499.5	U
56	AIRCRAFT INDUSTRIAL FACILITIES	A		15.3		17.0		9.5	U
57	WAR CONSUMABLES	A		13.2		13.4		10.4	U
58	OTHER PRODUCTION CHARGES	A		20.8		9.8		15.5	U
59	SPECIAL SUPPORT EQUIPMENT	A		26.5		61.3		106.4	U
60	FIRST DESTINATION TRANSPORTATION	A		3.0		1.6		1.6	U
61	CANCELLED ACCOUNT ADJUSTMENTS	A		2.1					U
TOTAL AIRCRAFT SUPPORT EQUIPMENT & FACILITIES				535.0		592.8		642.9	
TOTAL AIRCRAFT PROCUREMENT, NAVY				535.0		592.8		642.9	

Fiscal Year 2006 Budget Estimates
Budget Appendix Extract Language

AIRCRAFT PROCUREMENT, NAVY (APN)

For construction, procurement, production, modification, and modernization of aircraft, equipment, including ordnance, spare parts, and accessories therefor; specialized equipment; expansion of public and private plants, including the land necessary therefor, and such lands and interests therein, may be acquired, and construction prosecuted thereon prior to approval of title; and procurement and installation of equipment, appliances, and machine tools in public and private plants; reserve plant and Government and contractor-owned equipment layaway, **[**$8,912,042,000**]** *$10,517,126,000*, to remain available for obligation until September 30, **[**2007**]** *2008, of which $57,779,000 shall be available for the Navy Reserve and the Marine Corps Reserve. (10 U.S.C. 5013, 5063, 7201, 7341; Department of Defense Appropriations Act, 2005.)*

BUDGET ITEM JUSTIFICATION SHEET P-40	DATE: FEBRUARY 2005
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy/BA-7**	P-1 ITEM NOMENCLATURE 70500 COMMON GROUND EQUIPMENT
Program Element for Code B Items:	Other Related Program Elements

	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
QUANTITY												
COST (In Millions)	*		**$453.88**	**$489.62**	**$499.47**	**$445.92**	**$423.08**	**$424.43**	**$430.60**	**$440.21**		

The Common Ground Equipment line funds procurement of Automatic Test Equipment (ATE), various aircraft systems trainers and training aids, the Consolidated Automated Support System (CASS), support equipment for the Rapid Deployment Force, mobile maintenance facilities for Marine expeditionary forces, and other aircraft ground support equipment that is either peculiar to out-of-production aircraft or common in applicability to more than one aircraft. The requiring managers responsible for these procurements and the funds presently assigned to them are as follows:

	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
Ground Support Equip	285.90	293.06	274.57	270.17	268.33	260.44	266.44	272.57	Continued	Continued
Mobile Maint Facilities	5.152	5.352	11.797	11.548	11.622	11.777	12.041	12.314	Continued	Continued
Training	162.31	191.21	213.10	164.19	143.13	152.21	152.12	155.32	Continued	Continued
Special Support	0.518									
TOTAL	**453.88**	**489.62**	**499.47**	**445.92**	**423.08**	**424.43**	**430.60**	**440.21**	Continued	Continued

* Due to multiple Requiring Financial Managers (RFM's) in prior years, detailed breakout of prior year data is not available.

BUDGET ITEM JUSTIFICATION SHEET P-40												DATE: FEBRUARY 2005
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy/BA-7**						P-1 ITEM NOMENCLATURE			**COMMON AND CASS - 47C2** **SUPPORT EQUIPMENT**			
Program Element for Code B Items:						Other Related Program Elements						
	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
QUANTITY												
COST (In Millions)	*		**$285.90**	**$293.06**	**$274.57**	**$270.17**	**$268.33**	**$260.44**	**$266.44**	**$272.57**	**Continued**	**Continued**

The following elements comprise the Aviation Support Equipment and Consolidated Automated Support Systems Programs.

	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
Automatic Test Equipment	68.64	47.35	50.44	31.10	30.78	29.01	34.51	42.15	Continued	Continued
Aircraft Common SE	91.68	127.80	122.06	133.20	132.19	129.61	120.25	99.06	Continued	Continued
ICP/HQM SE	34.13	41.63	21.01	22.04	18.86	13.49	21.30	38.90	Continued	Continued
Subtotal	**194.455**	**216.782**	**193.508**	**186.338**	**181.829**	**172.102**	**176.063**	**180.106**	Continued	Continued
Consolidated Automated Supt Syst	91.44	76.28	81.07	83.84	86.50	88.34	90.38	92.47	Continued	Continued
Grand Total	**285.895**	**293.06**	**274.574**	**270.173**	**268.331**	**260.437**	**266.44**	**272.571**	Continued	Continued

* Due to multiple Requiring Financial Managers (RFM's) in prior years, detailed breakout of prior year data is not available.

BUDGET ITEM JUSTIFICATION SHEET P-40						DATE: FEBRUARY 2005						
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy/BA-7**						P-1 ITEM NOMENCLATURE 70500 COMMON GROUND EQUIPMENT AUTOMATIC TEST EQUIPMENT						
Program Element for Code B Items:						Other Related Program Elements						
	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
QUANTITY												
COST (In Millions)	*	A	**$68.64**	**$47.35**	**$50.44**	**$31.10**	**$30.78**	**$29.01**	**$34.51**	**$42.15**	**Continued**	**Continued**

GENERAL PROGRAM DESCRIPTION

This sub-line provides for the transition of current Automatic Test Equipment (ATE) Test Program Sets (TPSs) to AN/USM-636(V) Consolidated Automated Support System (CASS) and the acquisition and modification of common ATE to meet fleet operational requirements identified in the fleet concurred Common Support Equipment Operational Requirements List.

TEST PROGRAM SETS (TPSs) TRANSITION TO CASS

TPSs are SE that consist of the hardware, software, and documentation required to automatically fault detect and isolate electronic units under test (UUTs) to the defective sub-component and Ready for Issue (RFI) the component. Existing ATE that can no longer be economically supported will be offloaded to CASS based on fleet priorities. This budget requests funds for the procurement of TPSs to offload support from existing obsolete ATE to CASS, as well as support of GFE requirements including UUT and CASS stations at CASS TPS Test Integration Facilities.

COMMON ATE ACQUISITION AND MODIFICATION

System acquisition and modification is necessary to replace obsolete and unsupportable equipment, support current technology, incorporate necessary reliability and maintainability improvements, and correct Fleet reported problems as a result of Engineering Investigations/Quality Deficiency Reports for out-of-production common ATE. Without these modifications replacement parts will not be available and common ATE will not remain operational.

* Due to multiple Requiring Financial Managers (RFM's) in prior years, detailed breakout of prior year data is not available.

WEAPONS SYSTEM COST ANALYSIS **P-5**	Weapon System	DATE: **FEBRUARY 2005**
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy BA-7**	ID Code **A**	P-1 ITEM NOMENCLATURE/SUBHEAD **COMMON GROUND EQUIPMENT 47C2** **Automatic Test Equipment**

TOTAL COST IN THOUSANDS OF DOLLARS

COST CODE	ELEMENT OF COST	ID Code	Prior Years	FY 2004			FY 2005			FY 2006			FY 2007		
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost				Quantity	Unit Cost	Total Cost
70000	1. TPS Transition to CASS	A				53,846			32,883			38,325			20,465
	2. Production Support					14,797			14,468			12,113			10,635
			0			**68,643**			**47,351**			**50,438**			**31,100**

BUDGET ITEM JUSTIFICATION SHEET P-40												DATE: FEBRUARY 2005
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy/BA-7**						P-1 ITEM NOMENCLATURE 70500 COMMON GROUND EQUIPMENT **A/C Common Support Equipment - Common Ground - 47C2**						
Program Element for Code B Items:						Other Related Program Elements						
	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
49. Composite Repair Kit QUANTITY												
COST (In Millions)	*	A	**$91.68**	**$127.80**	**$122.06**	**$133.20**	**$132.19**	**$129.61**	**$120.25**	**$99.06**	**Continued**	**Continued**

General Program Description: This budget sub-line provides for the acquisition of Support Equipment (SE) end items under the inventory and technical management of NAVAIR. These SE end items are required for ground testing handling, and maintenance of aircraft and their systems. Examples of SE items acquired under this budget line item include aircraft propulsion test systems, mobile air conditioners and generators and aircraft handling equipment.

Also included are common avionics support equipment (ASE) items which are too complex technically to be transitioned to the inventory control point for acquisition. The ASE included is managed by NAVAIR and supported through the Navy Inventory Control Point.

COMNAVAIRLANT/PAC warfighters, as supported by OSD and DON, have cited serious deficiencies in fleet support equipment (SE). These deficiencies have negatively impacted aircraft readiness, sailor Quality of Life (QOL) and Lifecycle Costs (LCC). FY04/05 reflects significant increases in funding to address these deficiencies and concerns as supported by the following fleet prioritizations and audits: (1) Navy IG Audit "Aircraft Spares and Readiness" dtd August 2000 identified shortfalls in SE and test equipment inventories having a negative impact on the flying hour program, and in particular aviation depot level repairables (AVDLR) expenditures; (2) Naval Aviation FY01 CV OAG identified Legacy ATE transition to CASS and support equipment (SE) recapitalization as a priority issue (#9 of 20); (3) Fleet Readiness Assessment Group (FRAG) reported, "Legacy SE is becoming unsupportable due to lack of funding and insufficient depot rework of existing SE…It is critical to restore the CASS Offload schedule and SE procurement accounts…"; and (4) GAO Audit #350137 "Review of Aviation Test Equipment Issues" identifies "…much of the test equipment needed to troubleshoot aircraft repairables has become obsolete…Maintenance personnel have expressed a concern that they were not able to troubleshoot or provide much needed useable aircraft parts to operate units because of troubles with or lack of test equipment."

* Due to multiple Requiring Financial Managers (RFM's) in prior years, detailed breakout of prior year data is not available.

BUDGET ITEM JUSTIFICATION SHEET FOR AGGREGATED ITEMS P-40a						DATE: FEBRUARY 2005						
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy/BA-7**						P-1 ITEM NOMENCLATURE **A/C Common Support Equipment - Common Ground - 47C2**						
Procurement Items	ID Code	Prior Years	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
1. Floodlight Set												
Qty		344	180	195								
Cost		6,500	4,600	5,850								
2. Jet Engine Test Instr.												
Qty		11	3	12	7	3						
Cost		10,938	2,357	11,400	6,650	2,850						
3. Crane, Wheel												
Qty					2	30						
Cost					300	4,500						
4. Hyd Power Supply (Elec)												
Qty			5	35	50	165						
Cost			542	1,596	2,350	6,564						
5. 482A Replacement												
Qty				10		60						
Cost				600		3,600						
Boresight Measurement Equp. (ABE)												
Qty			5		6	15						
Cost			2,506		3,000	7,500						
7. Diesel/Elect. Air Conditioner 10 Ton)												
Qty			5	75	75	75						
Cost			661	4,500	4,500	4,500						
8. Thermal Image NDI												
Qty												
Cost												
SUB-TOTAL		**17,438**	**10,666**	**23,946**	**16,800**	**29,514**						

BUDGET ITEM JUSTIFICATION SHEET FOR AGGREGATED ITEMS P-40a						DATE: FEBRUARY 2005						
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy/BA-7**						P-1 ITEM NOMENCLATURE **A/C Common Support Equipment - Common Ground - 47C2**						
Procurement Items	ID Code	Prior Years	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
FORWARDED		**17,438**	**10,666**	**23,946**	**16,800**	**29,514**						
9. Portable Oxygen Regulator T/S (PORTS)												
Qty						3						
Costs						240						
10. Shorebased Deicer												
Qty			5	8	12	13						
Costs			1,360	2,080	3,120	3,380						
11. Coast AWM-103												
Qty		103	182	180	180	132						
Costs		5,459	7,893	7,920	7,920	5,808						
12. Tow Tractor (SE Mid)												
Qty			5	332	300	350						
Cost			270	10,624	9,600	11,550						
13. Hyd Power Supply (Diesel)												
Qty			5	165	165	220						
Cost			434	6,567	6,764	9,289						
14. MSU 200 NAV												
Qty		49	120	120	141							
Cost		10,045	28,625	28,000	33,840							
15. Detector, Mag Particle												
Qty		16	434	309								
Cost		205	3,264	2,472								
16. Shaft Engine Test Instr.(SETI)												
Qty				4	7	8						
Cost				3,200	5,600	6,400						
SUB-TOTAL		**33,147**	**52,512**	**84,809**	**83,644**	**66,181**						

BUDGET ITEM JUSTIFICATION SHEET FOR AGGREGATED ITEMS P-40a						DATE: FEBRUARY 2005						
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy/BA-7**						P-1 ITEM NOMENCLATURE **A/C Common Support Equipment - Common Ground - 47C2**						
Procurement Items	ID Code	Prior Years	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
FORWARDED		**33,147**	**52,512**	**84,809**	**83,644**	**66,181**						
17. Engine Torque System (ETS)												
Qty			8	27								
Cost			1,503	2,025								
18. Tow Tractor, Heavy												
Qty												
Cost												
19. Shipboard Tractor CILOP												
Qty												
Cost												
20. SD-2 Spotting Pully CILOP												
Qty						3						
Cost						570						
21. Digital Radiography												
Qty						14						
Cost						2100						
22. R/F Comm/NAV T/S												
Qty			10		70	150						
Cost			410		2,450	5,250						
23. Fuel Qty T/S												
Qty		10		150	150	150						
Cost		200		4,500	4,500	4,500						
24. O2 Trailer												
Qty			4	140	140	47						
Cost			418	3,500	3,500	1,175						
SUB-TOTAL		**33,347**	**54,843**	**94,834**	**94,094**	**79,776**						

BUDGET ITEM JUSTIFICATION SHEET FOR AGGREGATED ITEMS P-40a						DATE: FEBRUARY 2005						
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy/BA-7**						P-1 ITEM NOMENCLATURE **A/C Common Support Equipment - Common Ground - 47C2**						
Procurement Items	ID Code	Prior Years	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
FORWARDED		**33,347**	**54,843**	**94,834**	**94,094**	**79,776**						
25. Mobile N2 Gas Generator (MNGG)												
Qty		4	48	49								
Cost		400	4,774	4,900								
26. MMG-A1 Replacement												
Qty					5							
Cost					190							
27. Landbased MEPP												
Qty						5						
Cost						500						
28. B4, B5 Maint. Platform												
Qty												
Cost												
29. Turbo Prop Eng. Test Inst. (TPETI)												
Qty												
Cost												
30. NG SW Loader												
Qty												
Cost												
31. Aqueous Weapons Cleaner												
Qty												
Cost												
32. Agitated Solvent Parts Washer												
Qty						60						
Cost						900						
SUB-TOTAL		**33,747**	**59,617**	**99,734**	**94,284**	**81,176**						

BUDGET ITEM JUSTIFICATION SHEET FOR AGGREGATED ITEMS P-40a						DATE: FEBRUARY 2005						
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy/BA-7**						P-1 ITEM NOMENCLATURE **A/C Common Support Equipment - Common Ground - 47C2**						
Procurement Items	ID Code	Prior Years	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
FORWARDED		**33,747**	**59,617**	**99,734**	**94,284**	**81,176**						
33. Composite Repair												
Temp. Pressure Kit												
Qty					25	98						
Cost					645	2,450						
34. Stereo Video Microscope												
Qty												
Cost												
35. Fiber Optic Repair Set												
Qty												
Cost												
36. Optical Fiber Test Set												
Qty				2		30						
Cost				21		210						
37. OTD Reflectometer												
Qty												
Cost												
38. Contaminent/Pur/Moist												
Qty					4	22						
Cost					120	660						
39. Arc Fault CB Tester												
Qty				2	50	25						
Cost				14	350	175						
40. Portable Data Analyzer												
Qty												
Cost												
SUB-TOTAL		**33,747**	**59,617**	**99,769**	**95,399**	**84,671**						

BUDGET ITEM JUSTIFICATION SHEET FOR AGGREGATED ITEMS P-40a								DATE: FEBRUARY 2005				
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy/BA-7**						P-1 ITEM NOMENCLATURE **A/C Common Support Equipment - Common Ground - 47C2**						
Procurement Items	ID Code	Prior Years	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
FORWARDED		**33,747**	**59,617**	**99,769**	**95,399**	**84,671**						
41. Wire Marking System												
Qty												
Cost												
42. Video Borescope												
Qty					20	200						
Cost					400	4,000						
43. TACAN I Level T/S												
Qty					6	60						
Cost					732	7,320						
44. Ultrasonic Tester												
Qty						150						
Cost						2,250						
45. A/C Wiring T/S												
Qty						10						
Cost						600						
46. Borescope, Defect Measure												
Qty						10						
Cost						300						
47. Air Conditioner 30 Ton												
Qty												
Cost												
48. EW Signal Generator												
Qty												
Cost												
SUB-TOTAL		**33,747**	**59,617**	**99,769**	**96,531**	**99,141**						

BUDGET ITEM JUSTIFICATION SHEET FOR AGGREGATED ITEMS P-40a								DATE: FEBRUARY 2005			
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy/BA-7**						P-1 ITEM NOMENCLATURE **A/C Common Support Equipment - Common Ground - 47C2**					
Procurement Items	ID Code	Prior Years	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
FORWARDED		**33,747**	**59,617**	**99,769**	**96,531**	**99,141**						
49. Composite Repair Kit												
Qty												
Cost												
SUB TOTAL		**33,747**	**59,617**	**99,769**	**96,531**	**99,141**						
Other			**32,066**	**28,035**	**25,527**	**34,060**						
TOTAL		**33,747**	**91,683**	**127,804**	**122,058**	**133,201**						

FY 2006/2007 BUDGET PRODUCTION SCHEDULE, P-21						DATE FEBRUARY 2005					
APPROPRIATION/BUDGET ACTIVITY **AIRCRAFT PROCUREMENT, NAVY/BA-7**				Weapon System		P-1 ITEM NOMENCLATURE **A/C Common Support Equipment - Common Ground - 47C2**					
		Production Rate			Procurement Leadtimes						
Item	Manufacturer's Name and Location	MSR	ECON	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure	
Jet Engine Test Instrumentation (JETI)	RACAL Insturments	1	1	5		3		8	11	Each	
	San Antonio, TX										
Jet Engine Test Instrumentation (JETI)	SYMTEK, AUSTIN, TX										

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2004												FISCAL YEAR 2005										BAL
						2003			CALENDAR YEAR 2004										CALENDAR YEAR 2005										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
JETI / RACAL	03	N	6	0	6					1	1	1	1	1	1														0
JETI / RACAL	04	N	1	0	1			A								1													0
JETI / SYMTEK	04	N	2	0	2													A								1	1			0
JETI / SYMTEK	05	N	12	0	12																						A			12

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2006												FISCAL YEAR 2007										BAL
						2005			CALENDAR YEAR 2006										CALENDAR YEAR 2007										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
JETI / SYMTEK	05	N	12	0	12	1	1	1	1	1	1	1	1	1	1	1	1													0
JETI / SYMTEK	06		7	0	7			A										1	1	1	1	1	1	1						0
JETI / SYMTEK	07		3	0	3														A						1	1	1			0

Remarks:

FY 2006/2007 BUDGET PRODUCTION SCHEDULE, P-21							DATE FEBRUARY 2005	
APPROPRIATION/BUDGET ACTIVITY **AIRCRAFT PROCUREMENT, NAVY/BA-7**			Weapon System				P-1 ITEM NOMENCLATURE **A/C Common Support Equipment - Common Ground - 47C2**	
		Production Rate			Procurement Leadtimes			
Item	Manufacturer's Name and Location	MSR	ECON	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
COAST AWM-103	SAIC, Indianapolis, IN	15	15	33		3	9	3	11	Each

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2004												FISCAL YEAR 2005										BAL
						2003	CALENDAR YEAR 2004												CALENDAR YEAR 2005										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
COAST AWM-103/SAIC	03	N	103	14	89	14	14	14	14	14	14	5																	0
COAST AWM-103/SAIC *	04	N	182	0	182			A														15	15	15	15	15	15	15	62

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2006												FISCAL YEAR 2007										BAL
						2005	CALENDAR YEAR 2006												CALENDAR YEAR 2007										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
COAST AWM-103/SAIC *	04	N	182	120	62	15	15	15	15	2																			0
COAST AWM-103/SAIC	05	N	180	0	180		A			13	15	15	15	15	15	15	15	15	15	15	15	2							0
COAST AWM-103/SAIC	06	N	180	0	180														A			13	15	15	15	15	15	15	62

Remarks:
* FY03 DELIVERIES ARE BLOCK ONE AND FY04 DELIVERIES ARE INITIAL DELIVERIES.

FY 2006/2007 BUDGET PRODUCTION SCHEDULE, P-21						DATE FEBRUARY 2005					
APPROPRIATION/BUDGET ACTIVITY			Weapon System			P-1 ITEM NOMENCLATURE **A/C Common Support Equipment - Common Ground - 47C2**					
		Production Rate			Procurement Leadtimes						
Item	Manufacturer's Name and Location	MSR	1-8-5	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure	
COAST AWM-103	SAIC, Indianapolis, IN	15	15	33			2	3	11	Each	

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2008												FISCAL YEAR 2009										BAL
						2007	CALENDAR YEAR 2008												CALENDAR YEAR 2009										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
COAST AWM-103/SAIC	06		180	118	62	15	15	15	15	2																		0
COAST AWM-103/SAIC	07		132	0	132		A			13	15	15	15	15	15	15	15	14											0

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2010												FISCAL YEAR 2011										BAL
						2009	CALENDAR YEAR 2010												CALENDAR YEAR 2011										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Remarks:

FY 2006/2007 BUDGET PRODUCTION SCHEDULE, P-21						DATE FEBRUARY 2005					
APPROPRIATION/BUDGET ACTIVITY **AIRCRAFT PROCUREMENT, NAVY/BA-7**			Weapon System			P-1 ITEM NOMENCLATURE **A/C Common Support Equipment - Common Ground - 47C2**					
		Production Rate			Procurement Leadtimes						
Item	Manufacturer's Name and Location	MSR	ECON	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure	
MID/SE LANDBASED	STEWART STEVENSON	5	30	40	0	3	5	3	8	Each	
TOW TRACTOR	MARIETTA, GA										

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2004												FISCAL YEAR 2005												BAL
						2003			CALENDAR YEAR 2004									CALENDAR YEAR 2005												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
MID/SE LANDBASED TOW TRACTOR	04	N	5	0	5					A					5														0
MID/SE LANDBASED TOW TRACTOR	05	N	332	0	332																		A			30	30	30	30	212

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2006												FISCAL YEAR 2007												BAL
						2005			CALENDAR YEAR 2006									CALENDAR YEAR 2007												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
MID/SE LANDBASED TOW TRACTOR	05	N	332	120	212	30	30	30	30	30	30	30	2																0
MID/SE LANDBASED TOW TRACTOR	06	N	300	0	300			A					28	30	30	30	30	30	30	30	30	30	2							0
MID/SE LANDBASED TOW TRACTOR	07	N	350	0	350															A			28	30	30	30	30	30	30	142

Remarks:

FY 2006/2007 BUDGET PRODUCTION SCHEDULE, P-21						DATE FEBRUARY 2005					
APPROPRIATION/BUDGET ACTIVITY **AIRCRAFT PROCUREMENT, NAVY/BA-7**			Weapon System			P-1 ITEM NOMENCLATURE **A/C Common Support Equipment - Common Ground - 47C2**					
		Production Rate			Procurement Leadtimes						
Item	Manufacturer's Name and Location	MSR	1-8-5	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure	
MID/SE TOW TRACTOR	STEWART STEVENSON										
	MARIETTA, GA										

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2008												FISCAL YEAR 2009												BAL
						2007			CALENDAR YEAR 2008										CALENDAR YEAR 2009												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
MID/SE LANDBASE TOW TRACTOR	07	N	350	208	142	30	30	30	30	22																				0

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2010												FISCAL YEAR 2011												BAL
						2009			CALENDAR YEAR 2010										CALENDAR YEAR 2011												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Remarks:

FY 2006/2007 BUDGET PRODUCTION SCHEDULE, P-21						DATE FEBRUARY 2005					
APPROPRIATION/BUDGET ACTIVITY **AIRCRAFT PROCUREMENT, NAVY/BA-7**			Weapon System			P-1 ITEM NOMENCLATURE **A/C Common Support Equipment - Common Ground - 47C2**					
		Production Rate			Procurement Leadtimes						
Item	Manufacturer's Name and Location	MSR	ECON	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure	
POWER SUPPLY,	Hydraulics, International	1	20	25		6	5	6	11	Each	
HYDRAULIC-DIESEL	Los Angeles, CA										

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2004												FISCAL YEAR 2005										BAL
						2003			CALENDAR YEAR 2004									CALENDAR YEAR 2005										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
POWER SUPPLY HYDRAULIC DIESEL	04	N	5	0	5						A					1	2	2											0
POWER SUPPLY HYDRAULIC DIESEL	05	N	165	0	165																			A					165

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2006												FISCAL YEAR 2007										BAL
						2005			CALENDAR YEAR 2006									CALENDAR YEAR 2007										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
POWER SUPPLY HYDRAULIC DIESEL	05	N	165	0	165	15	15	15	15	15	15	15	15	15	15	15													0
POWER SUPPLY HYDRAULIC DIESEL	06	N	165	0	165						A						15	15	15	15	15	15	15	15	15	15			0
POWER SUPPLY HYDRAULIC DIESEL	07	N	220	0	220																A						20	20	180

Remarks:

FY 2006/2007 BUDGET PRODUCTION SCHEDULE, P-21						DATE FEBRUARY 2005					
APPROPRIATION/BUDGET ACTIVITY **AIRCRAFT PROCUREMENT, NAVY/BA-7**			Weapon System			P-1 ITEM NOMENCLATURE **A/C Common Support Equipment - Common Ground - 47C2**					
		Production Rate			Procurement Leadtimes						
Item	Manufacturer's Name and Location	MSR	1-8-5	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure	
POWER SUPPLY,	Hydraulics, International	1	20	25		6	5	6	11	Each	
HYDRAULIC-DIESEL	Los Angeles, CA										

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2008												FISCAL YEAR 2009												BAL
						2007			CALENDAR YEAR 2008												CALENDAR YEAR 2009										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
POWER SUPPLY HYDRAULIC DIESEL	07	N	220	40	180	20	20	20	20	20	20	20	20	20																0

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2010												FISCAL YEAR 2011												BAL
						2009			CALENDAR YEAR 2010												CALENDAR YEAR 2011										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Remarks:

FY 2006/2007 BUDGET PRODUCTION SCHEDULE, P-21								DATE FEBRUARY 2005			
APPROPRIATION/BUDGET ACTIVITY **AIRCRAFT PROCUREMENT, NAVY/BA-7**			Weapon System			P-1 ITEM NOMENCLATURE **A/C Common Support Equipment - Common Ground - 47C2**					
		Production Rate			Procurement Leadtimes						
Item	Manufacturer's Name and Location	MSR	ECON	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure	
MSU 200 NAV	Hamilton Sundstrand	2	10	12		3	10	10	13	Each	
	San Diego, CA										

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2004												FISCAL YEAR 2005												BAL
						2003			CALENDAR YEAR 2004									CALENDAR YEAR 2005												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
MSU 200 NAV/Hamilton Sundstrand	03	N	49	0	49						5	6	6	7	7	8	10													0
MSU 200 NAV/Hamilton Sundstrand	04	N	120	0	120			A										10	10	10	10	10	10	10	10	10	10	10	10	0
MSU 200 NAV/Hamilton Sundstrand	05	N	120	0	120															A										120

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2006												FISCAL YEAR 2007												BAL
						2005			CALENDAR YEAR 2006									CALENDAR YEAR 2007												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
MSU 200 NAV/Hamilton Sundstrand	05	N	120	0	120	10	10	10	10	10	10	10	10	10	10	10	10													0
MSU 200 NAV/Hamilton Sundstrand	06	N	141	0	141			A										11	11	11	12	12	12	12	12	12	12	12	12	0

Remarks:

FY 2006/2007 BUDGET PRODUCTION SCHEDULE, P-21									DATE FEBRUARY 2005		
APPROPRIATION/BUDGET ACTIVITY			Weapon System			P-1 ITEM NOMENCLATURE **A/C Common Support Equipment - Common Ground - 47C2**					
		Production Rate			Procurement Leadtimes						
Item	Manufacturer's Name and Location	MSR	ECON	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure	
TACAN I LEVEL T/S	TBD	3	3	5		3	6	6	9	Each	

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2004												FISCAL YEAR 2005										BAL
						2003			CALENDAR YEAR 2004									CALENDAR YEAR 2005										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2006												FISCAL YEAR 2007										BAL
						2005			CALENDAR YEAR 2006									CALENDAR YEAR 2007										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
TACAN I LEVEL T/S	06		6	0	6				A						3	3													
TACAN I LEVEL T/S	07		60	0	60														A						5	5	5	5	5	35

Remarks:

FY 2006/2007 BUDGET PRODUCTION SCHEDULE, P-21										DATE FEBRUARY 2005	
APPROPRIATION/BUDGET ACTIVITY				Weapon System						P-1 ITEM NOMENCLATURE **A/C Common Support Equipment - Common Ground - 47C2**	
		Production Rate			Procurement Leadtimes						
Item	Manufacturer's Name and Location	MSR	1-8-5	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total		Unit of Measure
TACAN I LEVEL T/S	TBD	3	3	5		3	6	6	9		Each

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2008												FISCAL YEAR 2009										BAL
						2007			CALENDAR YEAR 2008												CALENDAR YEAR 2009									
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
TACAN I LEVEL T/S	07		60	25	35	5	5	5	5	5	5	5																	0

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2010												FISCAL YEAR 2011										BAL
						2009			CALENDAR YEAR 2010												CALENDAR YEAR 2011									
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Remarks:

FY 2006/2007 BUDGET PRODUCTION SCHEDULE, P-21						DATE FEBRUARY 2005					
APPROPRIATION/BUDGET ACTIVITY **AIRCRAFT PROCUREMENT, NAVY/BA-7**				Weapon System		P-1 ITEM NOMENCLATURE **A/C Common Support Equipment - Common Ground - 47C2**					
		Production Rate			Procurement Leadtimes						
Item	Manufacturer's Name and Location	MSR	ECON	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure	
POWER SUPPLY, Hyd-Electric	Hydraulics, International	2	15	15		3	8	8	11	Each	
	Los Angeles, CA										

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2004												FISCAL YEAR 2005												BAL
						2003			CALENDAR YEAR 2004									CALENDAR YEAR 2005												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
POWER SUPPLY HYDRAULIC Electrica	04	N	5	0	5						A								2	2	1								0
POWER SUPPLY HYDRAULIC Electrica	05	N	35	0	35																	A							35

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2006												FISCAL YEAR 2007												BAL
						2005			CALENDAR YEAR 2006									CALENDAR YEAR 2007												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
POWER SUPPLY HYDRAULIC Electrica	05	N	35	0	35	2	3	3	3	3	3	3	3	3	3	3	3													0
POWER SUPPLY HYDRAULIC Electrica	06	N	50	0	50					A								4	4	4	4	4	4	4	4	4	4	5	5	0
POWER SUPPLY HYDRAULIC Electrica	07	N	165	0	165																	A								0

Remarks:

FY 2006/2007 BUDGET PRODUCTION SCHEDULE, P-21						DATE FEBRUARY 2005					
APPROPRIATION/BUDGET ACTIVITY **AIRCRAFT PROCUREMENT, NAVY/BA-7**					Weapon System	P-1 ITEM NOMENCLATURE **A/C Common Support Equipment - Common Ground - 47C2**					
		Production Rate			Procurement Leadtimes						
Item	Manufacturer's Name and Location	MSR	1-8-5	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure	
POWER SUPPLY, Hyd-Electric	Hydraulics, International	2	15	15		3	8	8	11	Each	
	Los Angeles, CA										

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2008												FISCAL YEAR 2009												BAL
						2007			CALENDAR YEAR 2008									CALENDAR YEAR 2009												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
POWER SUPPLY HYDRAULIC Electrical	07	N	165	0	165	15	15	15	15	15	15	15	15	15	15	15														0

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2010												FISCAL YEAR 2011												BAL
						2009			CALENDAR YEAR 2010									CALENDAR YEAR 2011												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Remarks:

FY 2006/2007 BUDGET PRODUCTION SCHEDULE, P-21										DATE FEBRUARY 2005	
APPROPRIATION/BUDGET ACTIVITY **AIRCRAFT PROCUREMENT, NAVY/BA-7**					Weapon System					P-1 ITEM NOMENCLATURE **A/C Common Support Equipment - Common Ground - 47C2**	
		Production Rate			Procurement Leadtimes						
Item	Manufacturer's Name and Location	MSR	ECON	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total		Unit of Measure
R/F Comm/Nav T/S	TBD	10	10	20		4	10	8	14		Each

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2004												FISCAL YEAR 2005										BAL
						2003			CALENDAR YEAR 2004									CALENDAR YEAR 2005										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
R/F Comm/Nav T/S	04	N	10	0	10																A								10
R/F Comm/Nav T/S	05	N	0	0	0																								

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2006												FISCAL YEAR 2007										BAL
						2005			CALENDAR YEAR 2006									CALENDAR YEAR 2007										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
R/F Comm/Nav T/S	04	N	10	0	10		2	2	2	2	2																		0
R/F Comm/Nav T/S	05	N	0	0	0																								0
R/F Comm/Nav T/S	06	N	70	0	70			A								2	4	4	5	5	5	5	5	5	10	10	10			0
R/F Comm/Nav T/S	07	N	150	0	150															A								10	10	130

Remarks:

FY 2006/2007 BUDGET PRODUCTION SCHEDULE, P-21									DATE FEBRUARY 2005	
APPROPRIATION/BUDGET ACTIVITY **AIRCRAFT PROCUREMENT, NAVY/BA-7**				Weapon System					P-1 ITEM NOMENCLATURE **A/C Common Support Equipment - Common Ground - 47C2**	
		Production Rate			Procurement Leadtimes					
Item	Manufacturer's Name and Location	MSR	1-8-5	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
R/F Comm/Nav T/S	TBD	10	10	20		4	10	8	12	Each

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2008												FISCAL YEAR 2009												BAL
						2007			CALENDAR YEAR 2008									CALENDAR YEAR 2009												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
R/F Comm/Nav T/S	07	N	150	20	130	13	13	13	13	13	13	13	13	13	13															0

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2010												FISCAL YEAR 2011												BAL
						2009			CALENDAR YEAR 2010									CALENDAR YEAR 2011												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Remarks:

FY 2006/2007 BUDGET PRODUCTION SCHEDULE, P-21									DATE FEBRUARY 2005	
APPROPRIATION/BUDGET ACTIVITY **AIRCRAFT PROCUREMENT, NAVY/BA-7**			Weapon System			P-1 ITEM NOMENCLATURE **A/C Common Support Equipment - Common Ground - 47C2**				
		Production Rate			Procurement Leadtimes					
Item	Manufacturer's Name and Location	MSR	ECON	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
Boresight Measurement	AAI Corporation	1	1	2		4	9	7	13	Each
Equipment (ABE)	Hunt Valley, MD									

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2004												FISCAL YEAR 2005										BAL
						2003			CALENDAR YEAR 2004									CALENDAR YEAR 2005										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Boresight Measurement	04	N	5	0	5											A								2	2	1			0
Equipment (ABE)																													

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2006												FISCAL YEAR 2007										BAL
						2005			CALENDAR YEAR 2006									CALENDAR YEAR 2007										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Boresight Measurement	06	N	6	0	6							A							1	1	1	1	1	1					0
Equipment (ABE)																													
Boresight Measurement	07	N	15	0	15													A							1	1	1	1	1	10
Equipment (ABE)																													

Remarks:

FY 2006/2007 BUDGET PRODUCTION SCHEDULE, P-21										DATE FEBRUARY 2005	
APPROPRIATION/BUDGET ACTIVITY **AIRCRAFT PROCUREMENT, NAVY/BA-7**			Weapon System			P-1 ITEM NOMENCLATURE **A/C Common Support Equipment - Common Ground - 47C2**					
		Production Rate			Procurement Leadtimes						
Item	Manufacturer's Name and Location	MSR	1-8-5	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure	
Boresight Measurement	TBD	1	1	2		4	9	7	13	Each	
Equipment (ABE)											

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2008												FISCAL YEAR 2009												BAL
						2007			CALENDAR YEAR 2008												CALENDAR YEAR 2009										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Boresight Measurement	07	N	15	5	10	1	1	1	1	1	1	1	1	1	1															0
Equipment (ABE)																														

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2010												FISCAL YEAR 2011												BAL
						2009			CALENDAR YEAR 2010												CALENDAR YEAR 2011										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Remarks:

FY 2006/2007 BUDGET PRODUCTION SCHEDULE, P-21										DATE FEBRUARY 2005	
APPROPRIATION/BUDGET ACTIVITY **AIRCRAFT PROCUREMENT, NAVY/BA-7**						Weapon System				P-1 ITEM NOMENCLATURE **A/C Common Support Equipment - Common Ground - 47C2**	
		Production Rate			Procurement Leadtimes						
Item	Manufacturer's Name and Location	MSR	ECON	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total		Unit of Measure
Shaft Engine Test Instr. (SETI)	**TBD**	1	1	1		5	8	6	11		Each

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2004												FISCAL YEAR 2005									BAL
						2003			CALENDAR YEAR 2004									CALENDAR YEAR 2005									
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Shaft Engine Test Instr. (SETI)	05	N	4	0	4																					A			4

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2006												FISCAL YEAR 2007									BAL
						2005			CALENDAR YEAR 2006									CALENDAR YEAR 2007									
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Shaft Engine Test Instr. (SETI)	05	N	4	0	4						1		1		1		1												0
Shaft Engine Test Instr. (SETI)	06	N	7	0	7								A						1		1		1	1	1	1			0
Shaft Engine Test Instr. (SETI)	07	N	8	0	8																		A					1	7

Remarks:

FY 2006/2007 BUDGET PRODUCTION SCHEDULE, P-21										DATE FEBRUARY 2005	
APPROPRIATION/BUDGET ACTIVITY				Weapon System						P-1 ITEM NOMENCLATURE **A/C Common Support Equipment - Common Ground - 47C2**	
		Production Rate			Procurement Leadtimes						
Item	Manufacturer's Name and Location	MSR	1-8-5	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total		Unit of Measure
Shaft Engine Test Instr. (SETI)	**TBD**	1	1	1		5	8	6	11		Each

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2008												FISCAL YEAR 2009										BAL
						2007			CALENDAR YEAR 2008												CALENDAR YEAR 2009									
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Shaft Engine Test Instr. (SETI)	07	N	8	1	7	1	1	1	1	1	1	1																	0

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2010												FISCAL YEAR 2011										BAL
						2009			CALENDAR YEAR 2010												CALENDAR YEAR 2011									
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Remarks:

BUDGET ITEM JUSTIFICATION SHEET P-40												DATE: FEBRUARY 2005
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy/BA-7**						P-1 ITEM NOMENCLATURE 70500 COMMON GROUND EQUIPMENT **ICP/HEADQUARTERS MANAGED SUPPORT EQUIPMENT**						
Program Element for Code B Items:						Other Related Program Elements						
	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
QUANTITY												
COST (In Millions)	*		**34.13**	**41.63**	**21.01**	**22.04**	**18.86**	**13.49**	**21.30**	**38.90**	**Continued**	**Continued**

General Program Description

This budget sub-line funds the procurement of end items of Peculiar Support Equipment (PSE) for out-of-production weapon systems, and Common Support Equipment (CSE) under the budget, procurement, and inventory control of the Naval Inventory Control Point (NAVICP). PSE and CSE end items are normally introduced into the fleet through NAVAIR development, and initial procurement. When design is stabilized and procurement packages are available, these items then migrate to NAVICP management, and are funded under this sub-line. NAVICP currently manages over 11,000 individual repairable SE end items. This subline also funds initial outfitting of new construction ships.

This sub-line also provides for the replacement of certain in-use PSE that are now marginally effective, due to obsolescence, or to the unavailability of associated logistics support. As a consequence, a logistically supportable replacement item must be designed and produced. This budget sub-line provides replacement of PSE support for out-of-production aircraft requirements only.

In addition, this sub-line provides for the completion of the design and production of: (1) certain PSE items that were not funded during the production phase of the weapon system, and (2) modifications to out-of-production aircraft PSE to extend its useful service life.

NAVAIR is responsibe for the design, and initial production of the items cited above. When each is fully qualified, NAVICP will assume material management responsibility for the item.

COMNAVAIRLANT/PAC warfighters, as supported by OSD and DON, have cited serious deficiencies in fleet support equipment (SE). These deficiencies have negatively impacted aircraft readiness, sailor Quality of Life (QOL) and Lifecycle Costs (LCC). FY04/05 reflects significant increases in funding to address these deficiencies and concerns as supported by the following fleet prioritizations and audits: (1) Navy IG Audit “Aircraft Spares and Readiness” dtd August 2000 identified shortfalls in SE and test equipment inventories having a negative impact on the flying hour program, and in particular aviation depot level repairables (AVDLR) expenditures; (2) Naval Aviation FY01 CV OAG identified Legacy ATE transition to CASS and support equipment (SE) recapitalization as a priority issue (#9 of 20); (3) Fleet Readiness Assessment Group (FRAG) reported, “Legacy SE is becoming unsupportable due to lack of funding and insufficient depot rework of existing SE…It is critical to restore the CASS Offload schedule and SE procurement accounts…”; and (4) GAO Audit #350137 “Review of Aviation Test Equipment Issues” identifies “…much of the test equipment needed to troubleshoot aircraft repairables has become obsolete…Maintenance personnel have expressed a concern that they were not able to troubleshoot or provide much needed useable aircraft parts to operate units because of troubles with or lack of test equipment.”

* Due to multiple Requiring Financial Managers (RFM's) in prior years, detailed breakout of prior year data is not available.

WEAPONS SYSTEM COST ANALYSIS **P-5**	Weapon System	DATE: **FEBRUARY 2005**
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy BA-7**	ID Code **A**	P-1 ITEM NOMENCLATURE/SUBHEAD **A/C Common Ground Equipment 47C2** **ICP/HEADQUARTERS MANAGED SUPPORT EQUIPMENT**

TOTAL COST IN THOUSANDS OF DOLLARS

COST CODE	ELEMENT OF COST	ID Code	Prior Years	FY 2004			FY 2005			FY 2006			FY 2007		
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost				Quantity	Unit Cost	Total Cost
70600	1. Additional CSE for initial outfitting of sites due to: (a) intro of weapon systems and (b) baseloading changes for existing weapon systems/subsystems.					4,399			11,937			5,120			5,919
	2. Additional PSE for initial outfitting of sites due to baseloading changes for out-of-production weapon systems and subsystems.					7,980			15,476			4,433			3,763
	3. New SE required for replenishment of existing SE due to obsolesence and attrition.					18,295			10,719			8,103			8,831
	Production Support					3,455			3,495			3,356			3,524
			0			**34,129**			**41,627**			**21,012**			**22,037**

DD FORM 2446, JUN 86 P-1 SHOPPING LIST

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: FEBRUARY 2005	
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy BA-7**						P-1 ITEM NOMENCLATURE **Consolidated Automated Support System-47C2**				70500 COMMON GROUND EQUIPMENT		
Program Element for Code B Items:						Other Related Program Elements						
	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
QUANTITY			**18**	**15**	**16**	**18**	**18**	**18**	**11**		**Continued**	**Continued**
COST (In Millions)	*		**$91.44**	**$76.28**	**$81.07**	**$83.84**	**$86.50**	**$88.34**	**$90.38**	**$92.47**	**Continued**	**Continued**

Program Coverage: The ACAT II Consolidated Automated Support System (CASS) program is chartered to replace the Navy's inventory of 25 different types of computer-based Automatic Test Equipment (ATE) with a single modern, cost effective COTS/NDI based ATE system, and has been designated as the Navy's Standard Family of ATE. There are five configurations of CASS which support the entire spectrum of electronics testing requirements from direct current to light: Hybrid [tests digital and analog], Radio Frequency (RF) [tests radars and electronic warfare systems], Communications Navigation IFF (CNI), Electro-Optics Support System+ (EOSS+) [tests FLIRs and LASERs] and Reconfigurable Transportable (RTCASS) [a man-transportable version of RF CASS]. CASS supports intermediate and depot level repair of aircraft, ship, submarine and other weapon system electronics. CASS performs fault detection and diagnostic testing of over 3,300 different "black boxes" and associated circuit cards from F/A-18A/B/C/D/E/F, T-45, AV-8B, S-3, EA-6B, F-14 A/B/D, H-60, H-3, E-2, C-2, and V-22 as well as several NAVSEA/SPAWAR weapon systems.

Justification: CASS replaces older, legacy ATE systems that have become obsolete (parts are no longer available) and too expensive to maintain. CASS reduces afloat CV/CVN ATE manning from 104 to 54 billets and reduces the size of the AVCAL (spare parts) from 30,000 to 3,500. CASS also reduces technician Naval Enlisted Classifications (NECs) types, along with their training courses, from 32 to only 4. Each CV will deploy with 18 - 20 CASS stations and each LHD/LHA will deploy with 3 stations. CASS is utilized at Aircraft Intermediate Maintenance Departments (AIMDs) afloat and ashore, at USMC Marine Aviation Logistics Squadrons (MALS), and at Navy depots. RTCASS supports USMC V-22 and fixed wing aircraft.

Current and budget year requirements are needed for CASS introduction in support of the following new and transitioning systems:

New Requirements: T-45 TS (Block Upgrades), ATARS, EA-6B Low/High Band Transmitter, F/A-18E/F (multiple), MIDS (F/A-18), F-18 FCC/UFCD/GCU/MPCD/ AHRS, CAS CIT BFN, V-22, ATFLIR (F/A-18), CEC (E-2C), MH-60R/S (multiple systems), UH-1Y and AH-1Z, AN/ASN-139 (multiple aircraft), EGI (multiple aircraft).

Transitioning Legacy Testers: 20 legacy automatic testers that support Navy and USMC tactical air aircraft.

CASS Modernization: Initiating CASS station modernization starting in FY-05 to modernize older CASS stations to the newer baseline configuration. Phase I will modernize the CASS Block I stations (mid-1980s technology), and Phase II will modernize Block II CASS stations (early 1990s technologies). CASS Modernization Program will employ a modern test architecture to facilitate insertion of test technologies required by changes to supported weapon systems and to enable resolution of obsolescence issues.

Other Costs: CASS-associated requirements include the following: (1) incorporation of Class I ECPs generated through RDT&E and other programs to permit systematic insertion of new technology to meet requirements of new weapon system avionics (includes downsized electro-optics, downsized high power and inertial navigation capabilities), (2) incorporation of test technologies required to offload Test Program Sets (TPSs) from legacy ATE, (3) efforts to ameliorate obsolescence and improve system reliability, maintainability and supportability, (4) rehosting existing TPSs to leverage increased capabilities of new software technology, (5) providing support of CASS installation requirements at fleet sites afloat and ashore, (6) maintaining items contractually provided to contractors as Government Furnished Equipment, (7) maintaining supporting equipment used at CASS laboratory and testing facilities, and (8) providing ancillary equipment necessary for functionality of CASS.

* Due to multiple Requiring Financial Managers (RFM's) in prior years, detailed breakout of prior year data is not available.

CLASSIFICATION: **UNCLASSIFIED**

BUDGET ITEM JUSTIFICATION SHEET FOR AGGREGATED ITEMS P-40a						DATE: FEBRUARY 2005						
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy/BA-7**						P-1 ITEM NOMENCLATURE **CONSOLIDATED AUTOMATED SUPPORT SYSTEM/47C2**						
Procurement Items	ID Code	Prior Years	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
RT CASS	A											
QTY		16	18	15	16	18						
COST		48,023	35,340	29,619	24,104	26,663						
CASS MOD				3,704	14,000	15,181						
OTHER COSTS			56,100	42,955	42,962	41,991						
TOTAL			91,440	76,278	81,066	83,835						

FY 2006/2007 BUDGET PRODUCTION SCHEDULE, P-21			DATE FEBRUARY 2005
APPROPRIATION/BUDGET ACTIVITY **AIRCRAFT PROCUREMENT, NAVY/BA-7**		Weapon System	P-1 ITEM NOMENCLATURE CASS

		Production Rate			Procurement Leadtimes					
Item	Manufacturer's Name and Location	MSR	ECON	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
RT CASS-LOT 12	LOCKHEED MARTIN	1	1	2	0	10	21		21	Months
	ORLANDO FL									
RT CASS -LOTS 1-7	BOEING COMPANY						20	18	38	Months
	ST LOUIS, MO									

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2004												FISCAL YEAR 2005										BAL
						2003			CALENDAR YEAR 2004										CALENDAR YEAR 2005										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOT 12	02	N	4	0	4									1	2	1													0
LOT 1	03	N	12	0	12																						4	2	2	4
LOT 2	04	N	18	0	18						A																			18
LOT 3	05	N	15	0	15																						A			15
														`																

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2006												FISCAL YEAR 2007										BAL
						2005			CALENDAR YEAR 2006										CALENDAR YEAR 2007										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOT 1	03	N	12	8	4	2	2																							0
LOT 2	04	N	18	0	18			2	2	2	2	2	2	2	2	1	1													0
LOT 3	05	N	15	0	15													1	2	1	1	2	1	2	1	1	1	1	1	0
LOT 4	06	N	16	0	16							A																		16
LOT 5	07	N	18	0	18																			A						18

Remarks:

FY 2006/2007 BUDGET PRODUCTION SCHEDULE, P-21					DATE FEBRUARY 2005
APPROPRIATION/BUDGET ACTIVITY **AIRCRAFT PROCUREMENT, NAVY/ BA-7**		Weapon System		P-1 ITEM NOMENCLATURE CASS	

		Production Rate			Procurement Leadtimes					
Item	Manufacturer's Name and Location	MSR	1-8-5	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
RT CASS LOTS 1-7	The Boeing Company	1	1	2	0	10		18	18	Each
	St Louis, MO									

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2008												FISCAL YEAR 2009												BAL
						2007			CALENDAR YEAR 2008									CALENDAR YEAR 2009												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOT 4	06	N	16	0	16	2	1	1	1	1	2	1	2	1	1	1	2													0
LOT 5	07	N	18	0	18													1	2	1	2	1	2	1	2	1	2	1	2	0

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2010												FISCAL YEAR 2011												BAL
						2009			CALENDAR YEAR 2010									CALENDAR YEAR 2011												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Remarks:

BUDGET ITEM JUSTIFICATION SHEET P-40												DATE: FEBRUARY 2005
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy/BA-7**							P-1 ITEM NOMENCLATURE Common Ground Equipment - Mobile Facilites 70500					
Program Element for Code B Items:							Other Related Program Elements					
	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
QUANTITY												
COST (In Millions)			**5.152**	**5.352**	**11.797**	**11.548**	**11.622**	**11.777**	**12.041**	**12.314**	**Cont**	**Cont**

Program Description:

Mobile Facilities (MFs) budgeted in this sub-line consist of basic equipment: 8'X8'X20' shelters, Modular Rigid Wall Shelters, Environmental Control Units, Mobile Electrical Power generators, Short Distance Mobilizes/Complex Decomplex Tools, Resistive Load Banks, 60HZ Frequency Converters, Power Distribution Boxes, power cables, spreader bars, stacking blocks, scaffolds, slings, caster jacks, lashes and buckles. NAVAIR acts as the Primary Inventory Control Activity (PICA) for multi-service procurement of NAVAIR Mobile Facilities and related ancillary equipment.

Program Coverage:

The requirement for this equipment is directed toward fulfilling Navy and Marine Corps Aviation requirements. The basic concept is to provide containerized aviation logistics support to the operational commander that can be rapidly deployed by all transportation modes to any location in the world. Operationally, the MFs provide the Navy and Marine Corps with a quick response stand-alone capability to meet worldwide operational commitments. Economically, the MFs eliminate the need for "brick & mortar" construction.

Justification:

This sub-line will meet the ultimate goal of housing all Marine Corps Aviation intermediate-level logistics support in MFs in accordance with the Table of Basic Allowance for Fleet Marine Forces Aviation Units and fulfill specific Navy Aviation mobile logistics requirements as outlined in individual Weapon System Planning Documents (WSPDs).

BUDGET ITEM JUSTIFICATION SHEET FOR AGGREGATED ITEMS
P-40a

DATE: **FEBRUARY 2005**

APPROPRIATION/BUDGET ACTIVITY
Aircraft Procurement, Navy/Budget Activity 7

P-1 ITEM NOMENCLATURE
Common Ground Equipment - Mobile Facilites 70500

Procurement Items	ID Code	Prior Years	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
1. Mobile Facility Vans	A											
Quantity			90	91	92	92						
Funding			3.290	3.345	3.569	3.570						
2. Environ Cntrl	A											
Quantity			150	150	150	150						
Funding			0.300	0.300	0.315	0.315						
3. Power Cables	A											
Quantity			21	93	90	93						
Funding			0.021	0.093	0.090	0.093						
4. Short Dist Mob. Complex DeComplex Tool	A											
Quantity			8	8	8	8						
Funding			0.140	0.160	0.160	0.170						
5. Resistive Load Banks	A											
Quantity			0	0	8	8						
Funding			0.000	0.000	0.080	0.080						
6. Tactical Quiet Generator	A											
Quantity			0	0	74	85						
Funding			0.000	0.000	5.215	5.747						
7. Deployable Grounding	A											
Quantity			0	0	0	0						
Funding			0.000	0.000	0.788	0.000						
8. Other Costs	N/A		1.401	1.454	1.580	1.573						
Total P-1 Funding			5.152	5.352	11.797	11.548						

WEAPONS SYSTEM COST ANALYSIS
P-5

Weapon System

DATE: **FEBRUARY 2005**

APPROPRIATION/BUDGET ACTIVITY
Aircraft Procurement, Navy/Budget Activity 7

ID Code

P-1 ITEM NOMENCLATURE/SUBHEAD
Common Ground Equipment - Mobile Facilites (47C2)

TOTAL COST IN THOUSANDS OF DOLLARS

COST CODE	ELEMENT OF COST	ID Code	Prior Years	FY 2004			FY 2005			FY 2006			FY 2007		
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
70500	1. Mobile Facility Vans	A	0	90	36.6	3290	91	36.8	3345	92	38.8	3569	92	38.8	3570
70500	2. Environmental Control Units (3T)	A	0	150	2.0	300	150	2.0	300	150	2.1	315	150	2.1	315
70500	3. Power Cables	A	0	21	1.0	21	93	1.0	93	90	1.0	90	93	1.0	93
70500	4. Short Dist Mob. Complex DeComplex Tool	A	0	8	17.5	140	8	20.0	160	8	20.0	160	8	21.3	170
70500	5. Resistive Load Banks	A	0	0	0.0	0	0	0.0	0	8	10.0	80	8	10.0	80
70500	6. Tactical Quiet Generator	A	0	0	0.0	0	0	0.0	0	74	70.5	5215	85	67.6	5747
70500	7. Deployable Grounding Grid	A	0	0	0.0	0	0	0.0	0	13	60.6	788	0	0.0	0
70500	8. Publications	NA	0	2	98.0	196	2	97.0	194	2	117.5	235	2	113.0	226
70500	9. Logistic/Engineering Support	NA	0			646			675			711			699
70500	10. Logistic/Production Support	NA	0			532			550			588			606
70500	11. Drafting/Tooling	NA	0			27			35			46			42
			0			**5,152**			**5,352**			**11,797**			**11,548**

CLASSIFICATION: UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)	Weapon System: Mobile Facilities	A. DATE: **FEBRUARY 2005**

B. APPROPRIATION/BUDGET ACTIVITY	C. P-1 ITEM NOMENCLATURE	SUBHEAD
Aircraft Procurement, Navy/Budget Activity 7	Common Ground Equipment - Mobile Facilities	47C2

Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	TECH DATA AVAILABLE NOW?	DATE REVISIONS AVAILABLE
1. Mobile Facility Vans										
FY-04	90	36.6	NAWCADLKE	01-04	C/FP	Gichner, Dallastown, PA	01-04	07-04	Yes	No
FY-05	91	36.8	NAWCADLKE	01-05	C/FP	Gichner, Dallastown, PA	01-05	07-05	Yes	No
FY-06	92	38.8	NAWCADLKE	01-06	C/FP	Gichner, Dallastown, PA	01-06	07-06	Yes	No
FY-07	92	38.8	NAWCADLKE	01-07	C/FP	Gichner, Dallastown, PA	01-07	07-07	Yes	No
2. Environmental Cntrl Unit (3T)										
FY-04	150	2.0	NAWCADLKE	09-03	C/FP	Env. Sys. Jacksonville, FL	01-04	07-04	Yes	No
FY-05	150	2.0	NAWCADLKE	09-04	C/FP	Env. Sys. Jacksonville, FL	01-05	07-05	Yes	No
FY-06	150	2.1	NAWCADLKE	09-05	C/FP	Env. Sys. Jacksonville, FL	01-06	07-06	Yes	No
FY-07	150	2.1	NAWCADLKE	09-06	C/FP	Env. Sys. Jacksonville, FL	01-07	07-07	Yes	No
3. Power Cables										
FY-04	21	1.0	PWC Norfolk, VA	02-04	WX	NSC Norflok, VA	02-04	08-04	Yes	No
FY-05	93	1.0	PWC Norfolk, VA	02-05	WX	NSC Norflok, VA	02-05	08-05	Yes	No
FY-06	90	1.0	PWC Norfolk, VA	02-06	WX	NSC Norflok, VA	02-06	08-06	Yes	No
FY-07	93	1.0	PWC Norfolk, VA	02-07	WX	NSC Norflok, VA	02-07	08-07	Yes	No
4. Short Dist Mob/Complex Decomplex Tool										
FY-04	8	17.5	NAWCADLKE	11-03	C/FP	Evans Ind, City of Industry, CA	03-03	05-03	Yes	No
FY-05	8	20.0	NAWCADLKE	11-04	C/FP	Evans Ind, City of Industry, CA	03-04	05-04	Yes	No
FY-06	8	20.0	NAWCADLKE	11-05	C/FP	Evans Ind, City of Industry, CA	03-05	05-05	Yes	No
FY-07	8	21.3	NAWCADLKE	11-06	C/FP	Evans Ind, City of Industry, CA	03-06	05-06	Yes	No
5. Resistive Load Banks										
FY-06	8	10.0	NAWCADLKE	10-03	C/FP	Avtron Manufacturing, Inc	12-05	09-07	Yes	No
FY-07	8	10.0	NAWCADLKE	10-04	C/FP	Avtron Manufacturing, Inc	12-06	09-08	Yes	No

D. REMARKS

Note: Prices are based on previous contracts plus escalation. Quantities and cost are not always proportional. Buys are determined on total DOD procurements.

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy/Budget Activity 7**							P-1 ITEM NOMENCLATURE **Common Ground Equipment (47C2) - Training**		70500 COMMON GROUND EQUIPMENT			
Program Element for Code B Items:							Other Related Program Elements					
	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
QUANTITY												
COST (In Millions)	*	A	**$162.31**	**$191.21**	**$213.10**	**$164.19**	**$143.13**	**$152.21**	**$152.12**	**$155.32**	**Continued**	**Continued**

Common Ground Equipment – Training provides aircrew and aviation maintenance training systems in two categories:

General Training Equipment provides for the procurement of aviation training systems, including training devices and associated courseware, which are not associated with a specific aircraft platform. As required, includes modifications and updates to reflect changes in technology, or operating environment.

Justification of Major Programs: Maintenance Computer Based Training (CBT) provides a formal, standardized training program throughout the fleet and schoolhouses for aircraft maintenance training. The Aircrew Combat Training System (ACTS) will procure hardware and courseware in support of post-FRS HS/HSL, VAQ, VP, and VAW platform aircrew training. Fire fighting will procure mobile aircraft fire fighting training systems for advanced skills training and for fleet damage control personnel. The “A” School program provides training devices for aviation maintenance basic skills training. The Air Traffic Control (ATC) program will procure control tower trainers for both basic qualification and proficiency training at various air stations. Modify and upgrade the Landing Signal Officer Trainer (LSOT) to maintain technical and fleet configuration. Replace and upgrade of Naval Aviation Survival Training Program (NASTP) devices.

Modification/Modernization of Trainers provides for acquisition and updates for training systems supporting out-of-production aircraft.

Justification of Major Programs: Chief of Naval Aviation Training (CNATRA) program will provide upgrades to extend the service life of the TH-57 and the T-34 simulators. The Fleet Aircrew Simulator Training (FAST) program will improve simulators' contribution to readiness. Rehost of the E-6 2F144 visual system. Upgrade current P-3 Operational Flight Trainers (OFTs) to FAA level D equivalent trainers.

* Due to multiple Requiring Financial Managers (RFMs) in prior years, detailed breakout of PY data is not available.

BUDGET ITEM JUSTIFICATION SHEET FOR AGGREGATED ITEMS
P-40a

DATE: **February 2005**

APPROPRIATION/BUDGET ACTIVITY
Aircraft Procurement, Navy/Budget Activity 7

P-1 ITEM NOMENCLATURE
Common Ground Equipment (47C2) - Training

Procurement Items		ID Code	Prior Years	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
GENERAL TRAINING EQUIPMENT													
"A" School - Interactive Multisensor Analysis Trainer													
Quantity				7									
Funding				273									
Mobile Aircraft Firefighting Training Device (MAFTD)													
Quantity				4	1	6	4						
Funding				1,996	500	3,000	2,000						
OTHER GENERAL TRAINING EQUIPMENT COSTS				**45,867**	**39,185**	**40,002**	**26,686**						
MODIF/MODERN OF TRAINERS													
OTHER MODIF/MODERN OF TRNRS COSTS				**114,174**	**151,526**	**170,096**	**135,508**						
TOTAL P-1 FUNDING				**162,310**	**191,211**	**213,098**	**164,194**						

WEAPONS SYSTEM COST ANALYSIS P-5	Weapon System	DATE: February 2005
APPROPRIATION/BUDGET ACTIVITY: **Aircraft Procurement, Navy/Budget Activity 7**	ID Code: A	P-1 ITEM NOMENCLATURE/SUBHEAD: **COMMON GROUND EQUIPMENT - TRAINING/47C2**

TOTAL COST IN THOUSANDS OF DOLLARS

COST CODE	ELEMENT OF COST	ID Code	Prior Years	FY 2004			FY 2005			FY2006			FY2007					
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost			
70200	**GENERAL TRAINING EQUIPMENT**																	
	1. A School Classroom Trainers/Training Devices					15,677			9,317			10,148			7,332			
	2. Aircrew Combat Training System (ACTS)					4,305			4,142			3,053			2,877			
	3. Air Traffic Control (ATC)					2,290			6,880			4,155			1,514			
	4. Aviation Phys & Water Survival Trainers					760			766			5,582			678			
	5. Interactive Multisensor Analysis Trainer (IMAT)			7	39	273			0			0			0			
	6. Landing Signal Officer Trainer Mod					0			0			2,063			207			
	7. Maintenance Computer Based Training					18,904			15,671			12,704			11,383			
	8. Mission Rehearsal Pre-Planned Product Improvement (PPPI)/Support					1,440			823			825			833			
	9. Mobile Aircraft Firefighting Training Device (MAFTD)			4	499	1,996	1	500	500	6	500	3,000	4	500	2,000			
	10. Other General Training Equipment Costs					2,491			1,586			1,472			1,862			
						48,136			39,685			43,002			28,686			

CLASSIFICATION: **UNCLASSIFIED**

WEAPONS SYSTEM COST ANALYSIS P-5	Weapon System	DATE: February 2005
APPROPRIATION/BUDGET ACTIVITY: **Aircraft Procurement, Navy/Budget Activity 7**	ID Code: A	P-1 ITEM NOMENCLATURE/SUBHEAD: **COMMON GROUND EQUIPMENT - TRAINING/47C2**

TOTAL COST IN THOUSANDS OF DOLLARS

COST CODE	ELEMENT OF COST	ID Code	Prior Years	FY 2004			FY 2005			FY 2006			FY 2007					
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost			
70300	**MODIF/MODERN OF TRAINERS**																	
	11. CNATRA Trainer Support					5,719			5,094			9,601			7,527			
	12. Direct Support Readiness Training					4,000			3,983			0			0			
	13. E-6 Trainers/Support					10,250			4,580			191			5,918			
	14. EA-6B Trainers/Support					2,265			1,312			1,909			1,765			
	15. EP-3 Trainer Upgrade/Support					2,815			1,143			667			679			
	16. F/A-18 Trainers/Support					21,191			14,960			1,945			2,637			
	17. Fleet Aircrew Simulator Training (FAST)					29,819			64,034			94,997			55,359			
	18. H-60 Ordnance Handling Trainers					0			3,662			0			0			
	19. MH-53E OFT Visual System					0			8,292			552			169			
	20. P-3 Trainers/Support					19,872			39,419			7,812			7,545			
	21. S-3 Trainers/Support					1,620			704			198			0			
	22. SH-60B WST Computer Replacement					3,552			0			0			0			
	23. Undergraduate Naval Flight Officer (UNFO) Training					0			0			25,742			16,366			
	24. USMC Federation Simulators					3,453			0			19,735			31,616			
	25. Other Modif/Modern of Trainers Costs					9,618			4,343			6,747			5,927			
	SUBTOTAL - MODIF/MODERN OF TRAINERS					114,174			151,526			170,096			135,508			
						162,310			**191,211**			**213,098**			**164,194**			

NOTE:

UNCLASSIFIED

CLASSIFICATION: UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)	Weapon System	A. DATE **February 2005**
B. APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy/Budget Activity 7**	C. P-1 ITEM NOMENCLATURE **COMMON GROUND EQUIPMENT - TRAINING**	SUBHEAD **47C2**

Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	TECH DATA AVAILABLE NOW?	DATE REVISIONS AVAILABLE
A School - Interactive Multisensor Analysis Trainer										
FY2004	7	39	NSWC Carderock	7/03	WX	Presearch Incorp Fairfax VA	4/04	5/04	Y	1/03
Mobile Aircraft Firefighting Training Device (MAFTD)										
FY2004	4	499	FISC Norfolk	5/03	FFP	Canadian Commercial Corp. Ottawa Ontario Canada	12/03	7/04	Y	
FY2005	1	500	NAWCTSD	8/04	FFP	TBD	2/05	9/05	Y	
FY2006	6	500	NAWCTSD	TBD	FFP	TBD	12/05	7/06	Y	
FY2007	4	500	NAWCTSD	TBD	FFP	TBD	12/06	7/07	Y	

D. REMARKS

EXHIBIT P-43
SIMULATOR AND TRAINING DEVICE JUSTIFICATION

DATE: February 2005

Appropriation/P-1 Line Item

Aircraft Procurement, Navy/B.A.7/Common Ground Equipment - Training/47C2

Weapon System

IOC

Training Device by Type	Site	Delivery Date	Ready for Training Date	Average Student Throughput	Prior Years Qty	Prior Years Cost	FY 2004 Qty	FY 2004 Cost	FY 2005 Qty	FY 2005 Cost	FY 2006 Qty	FY 2006 Cost	FY 2007 Qty	FY 2007 Cost	FY 2008 Qty	FY 2008 Cost	FY 2009 Qty	FY 2009 Cost	FY 2010 Qty	FY 2010 Cost	FY 2011 Qty	FY 2011 Cost	To Complete Qty	To Complete Cost	Total Qty	Total Cost
"A" School - Interactive Multi-Sensor Analysis Trainer																										
	Post FRS	5/04	5/04	546			7	273																		
Mobile Aircraft Firefighting Training Device (MAFTD)																										
	Whidbey Island WA	7/04	7/04	1000			1	499																		
	Oceana VA	8/04	8/04	1000			1	499																		
	Corpus Christi TX	9/04	9/04	1000			1	499																		
	Yuma AZ	10/04	10/04	1000			1	499																		
	Fallon NV	7/05	7/05	1000					1	500																
	MCAS Camp Butler	7/06	7/06	1000							1	500														
	Diego Garcia	7/06	7/06	1000							1	500														
	MCAS Iwakuni	7/06	7/06	1000							1	500														
	Ventura City	7/06	7/06	1000							1	500														
	Willow Grove	7/06	7/06	1000							1	500														
	Rota Spain	7/06	7/06	1000							1	500														
	Lakehurst NJ	7/07	7/07	1000									1	500												
	Naval Dist Washingto	7/07	7/07	1000									1	500												
	Guantanamo Bay	7/07	7/07	1000									1	500												
	MCAS Beaufort	7/07	7/07	1000									1	500												
	NSWC Crane	7/08	7/08	1000																						
	Great Lakes	7/08	7/08	1000																						
	NAS Meridian	7/08	7/08	1000																						
	NAS Brunswick	7/08	7/08	1000																						
	NSA Suda Bay, Crete	7/09	7/09	1000																						
	NAB Little Creek	7/09	7/09	1000																						
	MCAS New River	7/09	7/09	1000																						
	Atsugi	7/09	7/09	1000																						
	TBD	7/10	7/10	1000																						
	TBD	7/11	7/11	1000																						
Total							11	2,269	1	500	6	3,000	4	2,000												

Description

BUDGET ITEM JUSTIFICATION SHEET P-40												DATE: FEBRUARY 2005
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy/BA-7**						P-1 ITEM NOMENCLATURE 70500 COMMON GROUND EQUIPMENT SPECIAL SUPPORT EQUIPMENT						
Program Element for Code B Items:						Other Related Program Elements						
	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
QUANTITY												
COST (In Millions)	*	A	**$0.518**									

GENERAL PROGRAM DESCRIPTION

This line is for the J-52 Engine Program to purchase the Coordinate Measuring Machine. The J-52 engine is a legacy gas turbine engine, which powers the EA-6B and has been in service since the 1960's.

* Due to multiple Requiring Financial Managers (RFM's) in prior years, detailed breakout of prior year data is not available.

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement Navy/ BA-7**						P-1 ITEM NOMENCLATURE **AIRCRAFT INDUSTRIAL FACILITIES 71500**						
Program Element for Code B Items:						Other Related Program Elements						
	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
QUANTITY												
COST (In Millions)	**856.0**	A	**15.3**	**17.0**	**9.5**	**8.6**	**9.9**	**10.2**	**10.4**	**10.7**	CONT	CONT

The Aircraft Industrial Facilities line funds procurement of calibration equipment for Navy standards and calibration laboratories, and funds property and program management at NAVAIR owned industrial facilities undergoing divestiture.

Funding is budgeted as follows:

	FY2005	FY2006	FY 2007
Calibration Equipment	10.650	7.584	8.629
Aircraft Industrial Facilities	6.399	1.924	0

Calibration Equipment Description:

The objective of the Metrology/Calibration (METCAL) Program is to maintain required accuracy and consistency in Navy measurements. This ensures the required measurement accuracy of Test and Measurement Systems (TAMS) and Aviation Support Equipment used to test, repair and maintain Aviation Weapon Systems is adequate. Calibration is an on-cycle maintenance action and can be described as the comparison of a measurement device/system of unverified/unknown accuracy (TAMS or SE) to a device of known and greater accuracy (Calibration Standard) .

Program Scope:

Calibration Equipment funds are used to procure Calibration Standards (CALSTDs) and ancillary equipment for Aviation Fleet Intermediate Calibration Activities, Fleet Training Activities and Aviation Navy Calibration Laboratories (NCLs) to support Aviation Organizational and Intermediate (I) level maintenance assets. Initial outfitting of all CALSTDs is the responsibility of the requiring project office with the replenishment/replacement of CALSTDs procured under this document. CALSTDs procured for Fleet 'I' level use are to replace obsolete and/or irreparable equipment, expand technical measurement capabilities to decrease Depot support costs, reduce out-of-service turn around times, provide enhanced forward deployed geographic support and reduce/control the NAVAIR cost of ownership associated with Calibration. Fleet 'I' level calibration activities support 70% of the total Fleet calibration workload. Maintenance of Fleet calibration capability through this funding results in the release of more expensive Depot level support man-hours for more complex calibration maintenance and calibrations where economy of scale costs dictate single site or geographic calibration center capability. CALSTDs procured for NCLs allow for the automation and improvement of calibration procedures in order to reduce Depot level man-hour expenditures required to support Fleet assets, reduce Fleet asset out-of-service and Turn around Time, expand technical calibration capabilities for enhanced in-theater Fleet support, and replace obsolete and high support cost CALSTDs.

BUDGET ITEM JUSTIFICATION SHEET P-40												DATE: February 2005
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy/ BA-7**						P-1 ITEM NOMENCLATURE **AIRCRAFT INDUSTRIAL FACILITIES 71500**						
Program Element for Code B Items:						Other Related Program Elements						
	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
QUANTITY												
COST (In Millions)	**856.0**	A	**15.3**	**17.0**	**9.5**	**8.6**	**9.9**	**10.2**	**10.4**	**10.7**	CONT	CONT

All NAVAIR owned industrial facilities have been declared excess and are in the process of divestiture. Property still owned by NAVAIR ranges from a few hundred largely undeveloped acres at one site to a contractor operated aircraft production facility valued at $50M. Divestiture depends on compliance with environmental cleanup requirements and market price associated with property sale, which are beyond the control of NAVAIR. Final disposal dates are uncertain. A minimal requirement attributable to the cost of property ownership is a bill that will continue until divestiture is complete. Current advice from Resource Sponsor is to budget for ownership cost on a year to year basis at minimum amounts necessary to continue the disposal effort after funds currently appropriated for this purpose are depleted.

BUDGET ITEM JUSTIFICATION SHEET FOR AGGREGATED ITEMS P-40a						DATE: February 2005						
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy**						P-1 ITEM NOMENCLATURE **CALIBRATION EQUIPMENT**						
Procurement Items	ID Code	Prior Years	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 20011	To Complete	Total
Low Frequency AC/DC CALSTDs												
Quantity			87	123	80	85						
Funding		83,406	876	1,186	898	973						
RF/ Microwave CALSTDs												
Quantity			55	68	47	60						
Funding		75,970	1,299	1,718	1,402	1,916						
Physical Dimen / Optical CALSTDs												
Quantity			138	146	88	101						
Funding		99,753	1,388	2,308	1,117	1,292						
Res / Impedance CALSTDs												
Quantity			106	164	116	128						
Funding		33,527	420	689	580	663						
Automated / Interface CALSTDs												
Quantity			78	118	77	93						
Funding		8,832	361	582	388	486						
Other CALSTDs Procurement												
Quantity			145	173	105	113						
Funding		1,303	1,951	1,887	1,328	1,461						
Other Costs		90,630	2,224	2,280	1,871	1,838						
Total P-1 Funding		393,421	8,519	10,650	7,584	8,629						

P-1 SHOPPING LIST CLASSIFICATION:

DD Form 2454, JUN 86 ITEM NO. 56 PAGE NO. 3 of 6

WEAPONS SYSTEM COST ANALYSIS P-5	Weapon System	DATE: February 2005
APPROPRIATION/BUDGET ACTIVITY: **Aircraft Procurement, Navy**	ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD: **Calibration Equipment**

TOTAL COST IN THOUSANDS OF DOLLARS

COST CODE	ELEMENT OF COST	ID Code	Prior Years	FY 2004			FY 2005			FY 2006			FY 2007		
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
	Low Frequency AC/DC CALSTDs		83,406	87	10.08	876	123	9.65	1,186	80	11.23	898	85	11.45	973
	RF/ Microwave CALSTDs		75,970	55	23.62	1,299	68	25.27	1,718	47	29.83	1,402	60	31.97	1,916
	Physical Dimen / Optical CALSTDs		99,753	138	10.06	1,388	146	15.81	2,308	88	12.70	1,117	101	12.80	1,292
	Res / Impedance CALSTDs		33,527	106	3.97	420	164	4.21	689	116	5.00	580	128	5.18	663
	Automated / Interface CALSTDs		8,832	78	4.64	361	118	4.94	582	77	5.06	388	93	5.23	486
	Other CALSTDs Procurement		1,303	145	13.46	1,951	173	10.91	1,887	105	12.57	1,328	113	12.93	1,461
	Logistics / Engineering Support		28,118			781			833			701			642
	Production / Acquisition		62,512			1,443			1,447			1,170			1,196
			393,421			**8,519**			**10,650**			**7,584**			**8,629**

DD FORM 2446, JUN 86 P-1 SHOPPING LIST

ITEM NO. 56 PAGE NO. 4 of 6

CLASSIFICATION: UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System			A. DATE **February 2005**		
B. APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy**					C. P-1 ITEM NOMENCLATURE **Calibration Equipment**				SUBHEAD **47C4**	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	TECH DATA AVAILABLE NOW?	DATE REVISIONS AVAILABLE
Low Frequency AC/DC CALSTDs										
FY04	87	10.08	Multiple	Various	C/FP	Various	Mult	Mult	Yes	No
FY05	123	9.65	"	"	"	"	"	"	Yes	No
FY06	80	11.23	"	"	"	"	"	"	Yes	No
RF/ Microwave CALSTDs										
FY04	55	23.62	Multiple	Various	C/FP	Various	Mult	Mult	Yes	No
FY05	68	25.27	"	"	"	"	"	"	Yes	No
FY06	47	29.83	"	"	"	"	"	"	Yes	No
Physical Dimen / Optical CALSTDs										
FY04	138	10.06	Multiple	Various	C/FP	Various	Mult	Mult	Yes	No
FY05	146	15.81	"	"	"	"	"	"	Yes	No
FY06	88	12.70	"	"	"	"	"	"	Yes	No
Res / Impedance CALSTDs										
FY04	106	3.97	Multiple	Various	C/FP	Various	Mult	Mult	Yes	No
FY05	164	4.21	"	"	"	"	"	"	Yes	No
FY06	116	5.00	"	"	"	"	"	"	Yes	No
Automated / Interface CALSTDs										
FY04	78	4.64	Multiple	Various	C/FP	Various	Mult	Mult	Yes	No
FY05	118	4.94	"	"	"	"	"	"	Yes	No
FY06	77	5.06	"	"	"	"	"	"	Yes	No
Other CALSTDs Procurement										
FY04	145	13.46	Multiple	Various	C/FP	Various	Mult	Mult	Yes	No
FY05	173	10.91	"	"	"	"	"	"	Yes	No
FY06	105	12.57	"	"	"	"	"	"	Yes	No

D. REMARKS

CLASSIFICATION: UNCLASSIFIED

WEAPONS SYSTEM COST ANALYSIS **P-5**							Weapon System						DATE: **February 2005**		
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy / BA-7**							ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD **Aircraft Industrial Facilities/Contractor Facilities**							
COST CODE	ELEMENT OF COST	TOTAL COST IN THOUSANDS OF DOLLARS													
		ID Code	Prior Years	FY2004			FY2005			FY2006			FY2007		
			Total Cost	Quanity	Unit Cost	Total Cost	Quanity	Unit Cost	Total Cost	Quanity	Unit Cost	Total Cost	Quanity	Unit Cost	Total Cost
	FUNDED														
73400	Various 1/		462,594			6,827			6,399			1,924			0
	TOTAL REQUIREMENT:		**462,594**			**6,827**			**6,399**			**1,924**			**0**

1/ The amount identified against this cost element reflects total prior year funding associated with cost elements no longer financed in FY2003 and beyond.

BUDGET ITEM JUSTIFICATION SHEET | DATE:

P-40 | **February 2005**

APPROPRIATION/BUDGET ACTIVITY	P-1 ITEM NOMENCLATURE **BLI 072000**
Aircraft Procurement, Navy / B/A-7	**War Consumables (J7C5 & 47C5)**
Program Element for Code B Items:	Other Related Program Elements

	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY2010	FY2011	To Complete	Total
QUANTITY N/A												
COST (In Millions)	**426.0**		**13.2**	**13.4**	**10.4**	**24.8**	**33.6**	**27.2**	**27.3**	**10.8**	**Continuing**	**Continuing**

The WAR CONSUMABLES P-1 line item has two subcategories: Common Aircraft Armament Equipment (AAE) and War Consumables. The Common AAE program procures common bomb racks and peculiar bomb racks and launchers for out-of-production aircraft. The War Consumables portion funds procurement of airborne equipment which can be suspended, released, or jettisoned from aircraft, specifically aerial refueling stores.

COMMON AIRCRAFT ARMAMENT EQUIPMENT (AAE)

As directed by OPNAVINST 8000.16, this project corrects deficiencies and provides quantitative sustainment for Aircraft Armament Equipment having multiple aircraft applications. The appropriation provides for procurement of new AAE to replace attrition losses, provides for production engineering support, and satisfies commonality policy goals set forth by the Navy's Strike Warfare Master Plan. This account also procures High Pressure Pure Air Generators (HIPPAG) $_{TM}$ for AV-8B and AH-1W/Z aircraft. HIPPAG $_{TM}$ is an on-board coolant generator for IR seeking missiles which eliminates the burdens associated with high pressure vessels used previously. (HIPPAG) $_{TM}$ is particularly suited to the austere environment encountered by forward deployed VTOL aircraft. The increase of funding from FY06 to FY 07 is due to the procuremnt of LAU-7 Replacement.

WAR CONSUMABLES

The War Consumables program, PE 0204161N, finances Aerial Refueling Systems, Hose Reel, and External Tank procurements. Requirements are determined by an inventory objective, which supports peacetime/wartime needs. War Consumable items are inventory managed by the Naval Inventory Control Point, Philadelphia and are under Naval Air Systems Command program and technical management. Aircraft equipped with the A/A42R-1 aerial refueling stores (ARS) are required for all carrier based tanking missions (overhead tanking (primarily recovery focused), strike, and yo-yo tanking). Total reliance on the ARS and integration to the F/A-18E/F requires substantial improvements to the existing stores to ensure their viability through 2040. Investigation of major subsystems in pursuit of life cycle cost savings, mitigation of flight safety risk, and reliability enhancements have identified a large dollar value return on investment for service life extension, reduction in flight safety risk, and areas where reliability improvements can be realized.

BUDGET ITEM JUSTIFICATION SHEET FOR AGGREGATED ITEMS P-40a											DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy / B/A-7**							P-1 ITEM NOMENCLATURE **War Consumables (J7C5 & 47C5)**		**BLI 072000**			
Procurement Items	ID Code	Prior Years	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY2010	FY2011	To Complete	Total
High Press. Pure Air Ger	A											
Quantity		775	25	71	0	0						
Funding		29,006	1,150	2,289	0	0						
Other Costs		210,200	6,390	5,976	6,957	21,253						
Total AAE Funding		**239,206**	**7,540**	**8,265**	**6,957**	**21,253**						
Total War Consumables Funding		**186,771**	**5,684**	**5,153**	**3,480**	**3,507**						
TOTAL P-1 line item		**425,977**	**13,224**	**13,418**	**10,437**	**24,760**						

CLASSIFICATION: **UNCLASSIFIED**

WEAPONS SYSTEM COST ANALYSIS P-5			Weapon System			DATE: **February 2005**								
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy / B/A-7**			ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD **War Consumables (J7C5 & 47C5)**						**BLI 072000**				
			TOTAL COST IN THOUSANDS OF DOLLARS											
COST CODE	ELEMENT OF COST	ID Code	Prior Years	FY2004			FY 2005			FY2006			FY2007		
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
	COMMON AAE														
73600	Bomb Rack Upgrade & Install	A	16,272			1,095			567			613			663
73600	LAU-7 Upgrade & Installation	A	30,842			2,594			3,183			4,097			18,230
73600	High Press. Pure Air Gen.	A	29,006	25	46	1,150	71	32	2,289			0			0
73600	ILS		3,935			417			430			443			452
73600	Product Improvement		8,628			511			515			530			541
73600	Product Engineering		19,399			1,773			1,281			1,274			1,367
	Various (1)		131,124												
	TOTAL COMMON AAE		**239,206**			**7,540**			**8,265**			**6,957**			**21,253**
	WAR CONSUMABLES														
73500	Aerial Refueling Stores		19,631			4,904			4,447			3,003			3,027
73500	Production Support		5,180			780			706			477			480
73500	Various (1)		161,960												
	TOTAL WAR CONSUMABLES		**186,771**			**5,684**			**5,153**			**3,480**			**3,507**
	(1) The amount identified against this cost element reflects total prior year funding associated with cost elements no longer financed in FY 00 and beyond.														
	Total P-1 line item		**425,977**			**13,224**			**13,418**			**10,437**			**24,760**

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)	Weapon System	A. DATE
		February 2005

B. APPROPRIATION/BUDGET ACTIVITY	C. P-1 ITEM NOMENCLATURE	SUBHEAD
Aircraft Procurement, Navy / B/A-7	**BLI 072000 War Consumables**	**J7C5**

Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	TECH DATA AVAILABLE NOW?	DATE REVISIONS AVAILABLE
High Pressure Pure Air Generator (Common AAE)										
FY-04	25	46	NAVAIR	Aug-05	S/FP	Ultra Electronics, England	Dec-03	Nov-05	Yes	N/A
FY-05	71	32	NAVAIR	Aug-04	S/FP	Ultra Electronics, England	Feb-05	Feb-06	Yes	N/A

D. REMARKS

		DATE February 2005
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy / BA-7**	Weapon System	P-1 ITEM NOMENCLATURE **(J7C5)** **War Consumables BLI 072000**

Item	Manufacturer's Name and Location	Annual Production Rate MSR	ECON	MAX	Procurement Leadtimes ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
High Pressure Pure Air Generator	ULTRA Electronics, England	100	300	500		3	5	5	8	E

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2004 2003 OCT	NOV	DEC	CALENDAR YEAR 2004 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	FISCAL YEAR 2005 OCT	NOV	DEC	CALENDAR YEAR 2005 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	BAL
High Press. Air Gen.																														
Ultra Electronics	04	N	25	0	25			A											5	5	5	5	5							0
Ultra Electronics	05	N	71	0	71																	A								71

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2006 2005 OCT	NOV	DEC	CALENDAR YEAR 2006 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	FISCAL YEAR 2007 OCT	NOV	DEC	CALENDAR YEAR 2007 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	BAL
Ultra Electronics	05	N	71	0	71					25	25	21																		0

BUDGET ITEM JUSTIFICATION SHEET **P-40**					DATE: **February 2005**							
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy/BA-7**					P-1 ITEM NOMENCLATURE **725 Other Production Charges (Y7C6/47C6)**							
Program Element for Code B Items:					Other Related Program Elements							
	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
QUANTITY												
COST (In Millions)	**$163.8**		**$20.8**	**$9.8**	**$15.5**	**$19.5**	**$22.8**	**$28.4**	**$25.9**	**$23.0**	**CONT**	**CONT**

The Other Production Charges line provides funds for miscellaneous production support and testing services, aircraft cameras, aircraft pods, and instrumentation packages supporting tactical aircrew combat training and mobile sea range systems. The budget request supports the following efforts:

TACTICAL COMBAT TRAINING SYSTEM (TCTS)

The TCTS program will procure fixed, transportable, and mobile range equipment for the Navy for both shore-based (aircrew training) and deployable (ship/aircrew training) applications. TCTS instrumentation will transmit exercise scenarios: simulate/stimulate all exercise participants sensors and weapons with the exercise scenarios; track all exercise participants and events, e.g., weapons engagements; and provide accurate, realistic, and timely exercise feedback. TCTS is building on technology developed for existing tactical training range systems. This procurement primarily acquires airborne instrumentation participant subsystems for F-18/AV-8B Internal Subsystem (IS), Rotary and Transport Aircraft Rack-mounted Subsystem (RS), and other tactical aircraft Airborne Subsystem (AS). Beginning in FY09, Joint Tactical Radio System (JTRS) compliant data link transceiver retrofit kits will be procured to replace the non-compliant data link transceiver and to provide other performance enhancements.

F-14 WSSA

The Weapons System Support Activity (WSSA) evaluates and integrates changes in common avionics systems installed in the F-14 A/B/D aircraft to ensure that these systems remain compatible and do not degrade F-14 performance. This effort requires laboratory and flight evaluation to verify system performance and safety prior to installation in fleet aircraft. The current program plan supports WSSA software production into FY 2005.

BUDGET ITEM JUSTIFICATION SHEET P-40	DATE: February 2005
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy/BA7**	P-1 ITEM NOMENCLATURE **0725 OTHER PRODUCTION CHARGES (Y7C6/47C6)**
Program Element for Code B Items:	Other Related Program Elements

F-14 PRECISION STRIKE

The F-14 Precision Strike Operational Document (ORD 406-88-95) dated 14 June 1995 delineates an urgent fleet requirement for a precision strike capability. To further the F-14's ability to satisfy this requirement, approval was granted for the Low Altitude Navigation and Targeting Infrared (System) for Night (LANTIRN) 40K Laser and the Joint Direct Attack Munition (JDAM) to be added as part of ROADMAP II, in January 1999.

The JDAM integration requires no aircraft modifications and is completed via software modifications. Therefore, no kit/installation costs are reflected. However, engineering and logistics efforts were required in FY 2001/2002 to support its IOC in FY 2001 (F-14B) and FY 2002 (F-14D). These efforts included separation testing, trainer updates and publication changes needed to field the system.

This line also includes funding to support the migration of the F-14 Mission Planning Module (MPM) for Tactical Automated Mission Planning System (TAMPS) to the Joint Mission Planning System (JMPS). With the integration of Global Positioning System and GPS guided weapons into the aircraft, TAMPS/JMPS is required for the aircraft to be utilized in the fleet.

WEAPONS SYSTEM COST ANALYSIS
P-5

DATE: **February 2005**

APPROPRIATION/BUDGET ACTIVITY
Aircraft Procurement, Navy

P-1 ITEM NOMENCLATURE/SUBHEAD
0725 Other Production Charges (Y7C6/47C6)

TOTAL COST IN THOUSANDS OF DOLLARS

COST CODE	ELEMENT OF COST	ID Code	Prior Years	FY 2004			FY 2005			FY 2006			FY 2007		
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
	REWSON														
	MISC SMALL EQUIPMENT & ECPS		10,483												
	ASQ-197 SENSOR DATA CONTROLS		1,590												
	REWSON TOTAL		**12,073**												
	OTHER CAMERAS														
	ENGINEERING/LOGISTICS SUPPORT FOR DIGITAL CAMERA SYSTEM		4,342												
	MISC SMALL EQPT UNDER $100K		363												
	BASE STATION W/ PRINTER		755												
	DIGITAL CAMERA		1,114												
	OTHER CAMERAS TOTAL		**6,574**												
	F-14 WSSA		**82,955**			**10,956**			**979**						
	F-14 Precision Strike														
	LANTIRN/JDAM		8,716												
	TAMPS/JMPS		3,235			900			391			403			
	F-14 PRECISION STRIKE TOTAL		**11,951**			**900**			**391**			**403**			
	TOTAL REWSON/Other Camera, Precision Strike and WSSA		**113,553**			**11,856**			**1,370**			**403**			
74000	**Common Avionics Decen. (PMA 209)**		**4,737**			**1,761**									
74950	**TCTS**														
	Participant Subsystem														
	Airborne Subsystem			24	210	5,040	22	137	3,014	4	137	548	10	135	1,350
	Internal Subsystem						37	76	2,812	137	75	10,275	139	75	10,425
	Rack-mounted Subsystem									12	112	1,344	32	112	3,584
	JTRS Retrofit Kits														
	ILS					221			890			1,350			2,450
	Acceptance Test					741			520			245			45
	OTHER		50,248			1,203			1,239			1,302			1,604
	ALL OTHER TOTAL		**50,248**			**7,205**			**8,475**			**15,064**			**19,458**
			168,538			**20,822**			**9,845**			**15,467**			**19,458**

CLASSIFICATION: UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)	Weapon System	A. DATE **February 2005**
B. APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/BA7	C. P-1 ITEM NOMENCLATURE **OTHER PRODUCTION CHARGES-TCTS**	SUBHEAD 47C6

Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	TECH DATA AVAILABLE NOW?	DATE REVISIONS AVAILABLE
TCTS										
Participant Subsystem										
Airborne Subsystem										
FY2004	24	210	ACC/WMR	12/02	FFP	Cubic San Diego, CA	5/04	4/05	N/A	N/A
FY2005	22	137	ACC/WMR	12/02	FFP	Cubic San Diego, CA	5/05	3/06	N/A	N/A
FY2006	4	137	ACC/WMR	12/02	FFP	Cubic San Diego, CA	10/05	9/06	N/A	N/A
FY2007	10	135	ACC/WMR	12/02	FFP	Cubic San Diego, CA	10/06	7/07	N/A	N/A
Internal Subsystem										
FY2005	37	76	ACC/WMR	12/02	FFP	Cubic San Diego, CA	5/05	11/05	N/A	N/A
FY2006	137	75	ACC/WMR	12/02	FFP	Cubic San Diego, CA	10/05	4/06	N/A	N/A
FY2007	139	75	ACC/WMR	12/02	FFP	Cubic San Diego, CA	10/06	4/07	N/A	N/A
Rack-mounted Subsystem										
FY2006	12	112	ACC/WMR	12/02	FFP	Cubic San Diego, CA	10/05	7/06	N/A	N/A
FY2007	32	112	ACC/WMR	12/02	FFP	Cubic San Diego, CA	10/06	5/07	N/A	N/A

D. REMARKS

FY 2004/2005 BUDGET PRODUCTION SCHEDULE, P-21					DATE February 2005
APPROPRIATION/BUDGET ACTIVITY **APN-7/AIRCRAFT SUPPORT EQUIPMENT & FACILITIES**			Weapon System		P-1 ITEM NOMENCLATURE OTHER PRODUCTION CHARGES (47C6) - TCTS

		Production Rate			Procurement Leadtimes					
Item	Manufacturer's Name and Location	MSR	ECON	MAX	to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
TCTS Participant Subsystems	Cubic, San Diego, CA	1	41	505	0	1	6	11	12	EA

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2004												FISCAL YEAR 2005												BAL
						2003			CALENDAR YEAR 2004									CALENDAR YEAR 2005												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Airborne Subsystem	04	N	24	0	24								A											24						0
Airborne Subsystem	05	N	22	0	22																				A					22
Internal Subsystem	05	N	37	0	37																				A					37

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2006												FISCAL YEAR 2007												BAL
						2005			CALENDAR YEAR 2006									CALENDAR YEAR 2007												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Airborne Subsystem	05	N	22	0	22						7	7	8																	0
Internal Subsystem	05	N	37	0	37		9	9	9	10																				0
Airborne Subsystem	06	N	4	0	4	A											4													0
Internal Subsystem	06	N	137	0	137	A						35	35	35	32															0
Rack-mounted Subsystem	06	N	12	0	12	A									6	6														0
Airborne Subsystem	07	N	10	0	10													A									5	5		0
Internal Subsystem	07	N	139	0	139													A						35	35	35	34			0
Rack-mounted Subsystem	07	N	32	0	32													A							12	10	10			0

Remarks:

BUDGET ITEM JUSTIFICATION SHEET
P-40

DATE: **February 2005**

APPROPRIATION/BUDGET ACTIVITY
Aircraft Procurement, Navy/BA 7

P-1 ITEM NOMENCLATURE
SPECIAL SUPPORT EQUIPMENT - 47C7

Program Element for Code B Items:
Not Applicable

Other Related Program Elements
Not Applicable

	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY2011	To Complete	Total
QUANTITY												
COST (In Millions)	**550.130**		**26.540**	**61.315**	**106.376**	**73.113**	**48.294**	**46.289**	**33.355**	**29.934**	**continuing**	**continuing**

Details of this P-1 item are classified. Justification of this request is provided separately.

BUDGET ITEM JUSTIFICATION SHEET P-40												DATE: February 2005
APPROPRIATION/BUDGET ACTIVITY: **Aircraft Procurement, Navy BA-7**						P-1 ITEM NOMENCLATURE: First Destination Transportation						
Program Element for Code B Items:						Other Related Program Elements						
	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
QUANTITY												
COST (In Millions)	**$52.041**		**$3.046**	**$1.575**	**$1.628**	**$1.666**	**$1.703**	**$1.739**	**$1.775**	**$1.812**	Continuing	Continuing

MISSION AND DESCRIPTION: This line finances the movement of newly procured equipment and material from the contractor's plant to the initial point of receipt by the Government.

BASIS FOR FY 2006 BUDGET REQUEST: Funds are requested for FY 2006 First Destination Transportation requirements.

BUDGET ITEM JUSTIFICATION SHEET P-40							DATE: February 2005					
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy BA-7**							P-1 ITEM NOMENCLATURE **Canceled Account Adjustments**					
Program Element for Code B Items:							Other Related Program Elements					
	Prior Years	ID Code	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
QUANTITY												
COST (In Millions)			**$2.143**									

This line finances canceled account adjustments.