

DEPARTMENT OF THE NAVY  
FISCAL YEAR (FY) 2011  
BUDGET ESTIMATES



JUSTIFICATION OF ESTIMATES  
FEBRUARY 2010

AIRCRAFT PROCUREMENT, NAVY  
Volume II:  
BUDGET ACTIVITY 5

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## Department of Defense Appropriations Act, 2011

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### **Aircraft Procurement, Navy**

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, \$18,508,613,000, to remain available for obligation until September 30, 2013.

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Department of the Navy  
 FY 2011 President's Budget  
 Exhibit P-1 FY 2011 Base and Overseas Contingency Operations (OCO) Request  
 Summary  
 (Dollars in Thousands)

22 Jan 2010

Appropriation -----	FY 2009 (Base & OCO) -----	FY 2010 Base & OCO Enacted -----	FY 2010 Supplemental Request -----	FY 2010 Total -----
Aircraft Procurement, Navy	2,073,877	2,662,202	32,293	2,694,495
Total Department of the Navy	2,073,877	2,662,202	32,293	2,694,495

UNCLASSIFIED

Department of the Navy  
FY 2011 President's Budget  
Exhibit P-1 FY 2011 Base and Overseas Contingency Operations (OCO) Request  
Summary  
(Dollars in Thousands)

22 Jan 2010

Appropriation -----	FY 2011 Base -----	FY 2011 OCO -----	FY 2011 Total Request -----
Aircraft Procurement, Navy	1,623,739	328,358	1,952,097
Total Department of the Navy	1,623,739	328,358	1,952,097

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Department of the Navy  
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Summary  
(Dollars in Thousands)

22 Jan 2010

Appropriation: Aircraft Procurement, Navy

Budget Activity -----	FY 2009 (Base & OCO) -----	FY 2010 Base & OCO Enacted -----	FY 2010 Supplemental Request -----	FY 2010 Total -----
05. Modification of Aircraft	2,073,877	2,662,202	32,293	2,694,495
Total Aircraft Procurement, Navy	2,073,877	2,662,202	32,293	2,694,495

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(Dollars in Thousands)

22 Jan 2010

Appropriation: Aircraft Procurement, Navy

Budget Activity -----	FY 2011 Base -----	FY 2011 OCO -----	FY 2011 Total Request -----
05. Modification of Aircraft	1,623,739	328,358	1,952,097
Total Aircraft Procurement, Navy	1,623,739	328,358	1,952,097

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## UNCLASSIFIED

Department of the Navy  
 FY 2011 President's Budget  
 Exhibit P-1 FY 2011 Base and Overseas Contingency Operations (OCO) Request  
 (Dollars in Thousands)

Appropriation: 1506N Aircraft Procurement, Navy

Date: 22 Jan 2010

Line No	Item Nomenclature	Ident Code	FY 2009 (Base & OCO)		FY 2010 Base & OCO Enacted		FY 2010 Supplemental Request		FY 2010 Total		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 05: Modification of Aircraft											
-----											
Modification Of Aircraft											
29	EA-6 Series	A		33,161		84,854			84,854		U
30	AEA Systems										U
31	AV-8 Series	A		87,924		51,166			51,166		U
32	F-18 Series	A		464,287		527,595		32,293	559,888		U
33	H-46 Series	A		43,766		52,701			52,701		U
34	AH-1W Series	A		6,305		32,959			32,959		U
35	H-53 Series	A		91,888		232,717			232,717		U
36	SH-60 Series	A		57,824		93,192			93,192		U
37	H-1 Series	A		8,821		31,195			31,195		U
38	EP-3 Series	A		64,479		92,245			92,245		U
39	P-3 Series	A		340,081		462,351			462,351		U
40	E-2 Series	A		24,293		49,952			49,952		U
41	Trainer A/C Series	A		17,676		17,154			17,154		U
42	C-2a	A		25,031		28,377			28,377		U
43	C-130 Series	A		9,563		74,703			74,703		U
44	FEWSG	A		669		9,457			9,457		U
45	Cargo/Transport A/C Series	A		16,204		19,369			19,369		U
46	E-6 Series	A		88,597		102,330			102,330		U
47	Executive Helicopters Series	A		51,666		42,325			42,325		U

Exhibit P-1G: FY 2011 President's Budget (Published), as of January 22, 2010 at 13:10:11

## UNCLASSIFIED

Department of the Navy  
 FY 2011 President's Budget  
 Exhibit P-1 FY 2011 Base and Overseas Contingency Operations (OCO) Request  
 (Dollars in Thousands)

Appropriation: 1506N Aircraft Procurement, Navy

Date: 22 Jan 2010

Line No	Item Nomenclature	Ident Code	FY 2011 Base		FY 2011 OCO		FY 2011 Total Request		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 05: Modification of Aircraft									
-----									
Modification Of Aircraft									
29	EA-6 Series	A		14,891		15,000		29,891	U
30	AEA Systems			33,772				33,772	U
31	AV-8 Series	A		19,386		72,100		91,486	U
32	F-18 Series	A		492,821		43,250		536,071	U
33	H-46 Series	A		17,685				17,685	U
34	AH-1W Series	A		11,011		35,510		46,521	U
35	H-53 Series	A		25,871		36,248		62,119	U
36	SH-60 Series	A		67,779		6,430		74,209	U
37	H-1 Series	A		3,060				3,060	U
38	EP-3 Series	A		90,323				90,323	U
39	P-3 Series	A		221,982		6,000		227,982	U
40	E-2 Series	A		47,046				47,046	U
41	Trainer A/C Series	A		23,999				23,999	U
42	C-2a	A		16,020				16,020	U
43	C-130 Series	A		17,839				17,839	U
44	FEWSG	A		21,928				21,928	U
45	Cargo/Transport A/C Series	A		16,092				16,092	U
46	E-6 Series	A		149,164				149,164	U
47	Executive Helicopters Series	A		43,443				43,443	U

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Department of the Navy  
 FY 2011 President's Budget  
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 (Dollars in Thousands)

Appropriation: 1506N Aircraft Procurement, Navy

Date: 22 Jan 2010

Line No	Item Nomenclature	Ident Code	FY 2009 (Base & OCO)		FY 2010 Base & OCO Enacted		FY 2010 Supplemental Request		FY 2010 Total		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
48	Special Project Aircraft	A		102,705		12,331				12,331	U
49	T-45 Series	A		64,464		48,833				48,833	U
50	Power Plant Changes	A		26,439		26,314				26,314	U
51	JPATS Series	A		7,093		4,907				4,907	U
52	Aviation Life Support Mods	A		1,984		5,577				5,577	U
53	Common ECM Equipment	A		230,994		309,748				309,748	U
54	Common Avionics Changes	A		147,362		142,372				142,372	U
55	Common Defensive Weapon System	A		7,265		5,500				5,500	U
56	ID Systems	A		11,997		24,051				24,051	U
57	RQ-7 Series										U
58	V-22 (Tilt/Rotor ACFT) Osprey	B		41,339		77,927				77,927	U
Total Modification of Aircraft				2,073,877		2,662,202		32,293		2,694,495	
Total Aircraft Procurement, Navy				2,073,877		2,662,202		32,293		2,694,495	

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Department of the Navy  
 FY 2011 President's Budget  
 Exhibit P-1 FY 2011 Base and Overseas Contingency Operations (OCO) Request  
 (Dollars in Thousands)

Appropriation: 1506N Aircraft Procurement, Navy

Date: 22 Jan 2010

Line No	Item Nomenclature	Ident Code	FY 2011 Base		FY 2011 OCO		FY 2011 Total Request		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	
48	Special Project Aircraft	A		14,679		6,100		20,779	U
49	T-45 Series	A		61,515				61,515	U
50	Power Plant Changes	A		19,948				19,948	U
51	JPATS Series	A		1,831				1,831	U
52	Aviation Life Support Mods	A		8,084				8,084	U
53	Common ECM Equipment	A		21,947		38,700		60,647	U
54	Common Avionics Changes	A		101,120		14,100		115,220	U
55	Common Defensive Weapon System	A				10,500		10,500	U
56	ID Systems	A		20,397				20,397	U
57	RQ-7 Series			18,121		8,000		26,121	U
58	V-22 (Tilt/Rotor ACFT) Osprey	B		21,985		36,420		58,405	U
Total Modification of Aircraft				1,623,739		328,358		1,952,097	
Total Aircraft Procurement, Navy				1,623,739		328,358		1,952,097	

Exhibit P-40, BUDGET ITEM JUSTIFICATION											DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/APN-5 Aircraft Modifications							P-1 ITEM NOMENCLATURE 051100, EA-6 SERIES						
Program Element for Code B Items:							Other Related Program Elements						
	Prior Years	ID Code	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total
QTY		A											
COST (In Millions)	3180.5	A	33.2	84.9	14.9	15.0	29.9	15.2	11.6	5.0	0.0		3360.2
<p><b>DESCRIPTION:</b>                      This line item funds modifications to EA-6B aircraft and Airborne Electronic Attack products. The EA-6B Prowler is a four-seat, twin-engine, mid-wing, electronic attack, tactical aircraft. The EA-6B is employed in both Navy and Marine Corps squadrons to provide all DoD tactical electronic attack capability. Modifications budgeted and programmed include: procurement of low band transmitter inventory, ICAP III upgrades and installation, outer wing panels, Digital Flight Control System upgrade and readiness initiatives to ensure EA-6B and ALQ-99 viability.</p> <p>In FY2011, Airborne Electronic Attack systems employed by multiple platforms were placed in a separate Budget Line Item (BLI 0513: AEA Systems).</p> <p>Basis for FY 2011 Budget Request: FY11 funds EA-6B airframe and systems safety, reliability, and maintenance improvement modifications.                      Basis for FY 2011 Supplemental Budget Request: \$15.0M to procure 10 high OCO demand Low Band Transmitters (technical error left OCO in EA-6 Series vice transferring to AEA Systems BLI).</p>													
(TOA, \$ in Millions)													
<b>OSIP No.</b>	<b>Description</b>	<b>Prior Years</b>	<b>FY2009</b>	<b>FY2010</b>	<b>Base FY2011</b>	<b>OCO FY2011</b>	<b>Total FY2011</b>	<b>FY2012</b>	<b>FY2013</b>	<b>FY2014</b>	<b>FY2015</b>	<b>To Complete</b>	<b>Total</b>
019-79	ALQ-99 PODS	963.4	27.1	79.9		15.0	15.0						1085.4
032-85	EA-6B STRUCTURAL IMPROVEMENTS	1104.3	1.2		8.9		8.9	9.1	7.0	3.0			1133.4
001-01	ICAP III	479.1	4.4		6.0		6.0	6.1	4.6	2.0			502.2
005-03	MIDS / LINK 16	34.6											34.6
018-10	Intrepid Tiger AN/ALQ-228 Spiral			5.0									5.0
	INACTIVE OSIPS	599.1											599.1
	DAWDF REALIGNMENT		0.5										0.5
<b>Total</b>		<b>3180.5</b>	<b>33.2</b>	<b>84.9</b>	<b>14.9</b>	<b>15.0</b>	<b>29.9</b>	<b>15.2</b>	<b>11.6</b>	<b>5.0</b>			<b>3360.2</b>
<p><b>Note:</b>                      1. Totals may not add due to rounding.</p>													

Exhibit P-3a Individual Modification

MODIFICATION TITLE: ALQ-99 PODS ( OSIP 019-79 )  
 MODELS OF SYSTEMS AFFECTED: EA-6 SERIES TYPE MODIFICATION: RELIABILITY / MISSION CAPABILITY

DESCRIPTION/JUSTIFICATION:

LOW BAND TRANSMITTER:

The Low Band Transmitter (LBT) provides 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. 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.

LBT is a replacement for three AN/ALQ-99 transmitters that have found new and greatly expanded employment in Overseas Contingency Operations (OCO), providing protection to Coalition air and ground forces in continuous and direct contact with enemy forces. LBT combines the functionality of the modified transmitters into a single highly reliable solid state transmitter increasing both availability and mission effectiveness. The LBT increases reliability and flexibility. OCO support has required more sustained jamming than projected and resulted in higher system failure rates. The LBT is an O-Level remove and replace item. This capability will be available for all EA-6B/EA-18G aircraft, which includes four Naval Air Reserve aircraft. The Extended Low Band Radome (ELBR) currently flown on the EA-6B is structurally incompatible with the EA-18G. EA-18G compatible Extended Low Band Radomes (GELBRs) need to be produced for the integration of the ALQ-99 onto the EA-18G.

SUPPORT EQUIPMENT: Introduction of new/modified ALQ-99 pod equipment requires new/modified organizational, intermediate and depot level support equipment, such as modifications and additions to the pod test set to support Low Band Transmitter and Band 7/8 Transmitter, modifications to High Power Device Test Sets to extend frequency coverage to test Band 9/10 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 deficiencies found in testing or in the field.

In FY2011, items in this OSIP were placed in a separate Budget Line Item (BLI 0513: AEA Systems), while OCO request remained due to technical error (should have moved to BLI 0513).

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Following a competitive acquisition and Milestone II approval, Engineering and Manufacturing Prototype and Low Rate Initial Production (LRIP) testing conducted at government and contractor facilities successfully demonstrated the key performance parameters identified in OPNAV/N88 Itr Ser No. N88OC3/6S663399 of 26 JUL 96 can be attained with the present design. Testing of LRIP units began in April 2007, Milestone III was achieved in April 2008 and a Full Rate Production (FRP) contract was awarded June 2008. In response to the increasing force protection requirement, an Early Operations Capability (EOC) for LBT was met in August 2006.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits N/R																					
Installation Equipment	2575	199.9																	2575	199.9	
EXTENDED LOW BAND RADOME (GELBR)					22	2.8													22	2.8	
ALQ 99 BAND TWT IM	1	3.8																	1	3.8	
BAND 9/10 GFE		0.3																		0.3	
BAND 9/10 RADOME	260	4.9																	260	4.9	
BAND 9/10 TRANSMITTER CONG ADD	235	132.8																	235	132.8	
LOW BAND TRANSMITTER	140	151.9	17	14.1	24	30.4													181	196.4	
LOW BAND TRANSMITTER OCO					33	40.0	10	12.4											43	52.4	
PAO TRANSMITTER MOD	1296	5.8																	1296	5.8	
REPAIR OF GFE (UEU)		6.2																		6.2	
UNIVERSAL EXCITER UPGRADE	480	223.3																	480	223.3	
Installation Equipment N/R		23.2		4.5		5.8														33.5	
Installation Equipment N/R OCO								2.3												2.3	
Engineering Change Orders		1.3		*																1.3	
Data		10.3																		10.3	
Training Equipment		1.6																		1.6	
Support Equipment	6	103.9		1.0		*													6	104.9	
ILS		4.3		3.5																7.8	
Other Support		71.1		4.0		0.8														76.0	
Other Support OCO								0.3												0.3	
Interim Contractor Support																					
Installation Cost	1207	18.9																		1207	18.9
<b>Total Procurement</b>		<b>963.4</b>		<b>27.1</b>		<b>79.9</b>		<b>15.0</b>												<b>1085.4</b>	

Notes:

- Totals may not add due to rounding.
- Asterisk indicates amount value less than \$50K.
- 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).

Exhibit P-3a		Individual Modification																			
MODIFICATION TITLE:		EA-6B AVIONICS AND STRUCTURAL IMPROVEMENTS ( OSIP 032-85 )																			
MODELS OF SYSTEMS AFFECTED:		EA-6 SERIES									TYPE MODIFICATION: SAFETY OF FLIGHT / RELIABILITY										
DESCRIPTION/JUSTIFICATION:																					
<p>This Operational and Safety Improvement Program covers EA-6B Structural modifications and EA-6B peculiar avionics modifications arising from test/deficiencies and those reliability, maintainability and safety of flight related improvements. Included are Structural Improvement modifications for areas found to be deficient during aircraft fatigue test; Wing Center Section (WCS) and Outer Wing Panels that have reached their fatigue life limit; Digital Flight Control System and USQ-113v(4) Upgrades.</p> <p>The last 2 aircraft receiving WCS upgrades will complete in FY08. Funds were budgeted in FY07 to shutdown the WCS production and installation line. Efforts include tooling disposition at the Northrop Grumman facility in St Augustine, Florida.</p> <p>Outer Wing Panel (OWP): The OWP replacement program includes ongoing fatigue life expenditure (FLE) analysis and an airframe change to ensure EA-6B aircraft availability through FY-2018. Funds were budgeted in FY08 to shutdown the OWP production and installation line. Efforts include tooling disposition at the Northrop Grumman facility in St Augustine, Florida.</p> <p>Digital Flight Control System (DFCS): The DFCS program comprises the adaptation of existing Digital Flight Control Computer and Digital Control Panel to replace the existing Air Navigational Computer and control panel fitted to the EA-6B aircraft. This replacement DFCS has been configured to ensure a minimum number of aircraft changes are required. The flight control system upgrade eliminates the problem of spurious inputs to Flight Control Systems.</p> <p>Flight Control Surface Upgrades: Upgrade of EA-6B primary flight control surfaces, includes Inboard Slats, Rudders, Outboard Flaps and Horizontal Stabilizers. Utilizing Phosphoric Acid Anodized (PAA) Honeycomb Core technology improved operational availability of flight control surfaces. Both bond durability, between the face and core sheets, and corrosion resistance was significantly improved. Additionally, some structural surfaces will be upgraded to improve operational availability per engineering analyses.</p> <p>EA-6B Hydraulic System Upgrades: Upgrades to the hydraulic actuators to include new technology seals to prevent leakage, new barrels and end caps to improve operational reliability and reduce fatigue on components. This effort continues to upgrade hydraulic system components to reduce safety impact and improve operational reliability.</p> <p>Aircraft Wiring Upgrade: This effort replaced degraded wiring originally installed during OEM production of the EA-6B. Wiring originally installed conformed to specifications that have since been superseded. Post production engineering analyses indicated that some of the wiring originally installed had potential for severe degradation leading to increased possibility of electrical arcing and fire hazard.</p> <p>USQ-113 V(4) Upgrade: The USQ-113(V4) incorporates a Dual Jam Mode capability that doubles the number of targets that can be effectively jammed by the system, and removes unused and hard-to-obtain circuit card assemblies to improve the availability of this mission-essential equipment. The USQ-113(V4) upgrade into an EA-6B replaced the USQ-113(V3) System Controller unit, installed a new RF Switch module and associated tray, and upgraded aircraft cabling to support the mission-essential equipment; however, only the tray and cabling, known as the A-Kit, are assigned to an aircraft; the provisioned kit containing the USQ-113(V4) System Controller and RF Switch Module is mission equipment and not permanently installed on any given BUNO. This upgrade enables the USQ-113(V4) to be effective against high priority targets not achieved by the USQ-113(V3).</p> <p>Decision to extend EA-6B joint expeditionary capability required funding in FY 2011 through FY 2014 to fund all EA-6B airframe, hardware, and electrical component readiness, obsolescence, inspections, installations and safety of flight improvements throughout the remaining airframe service. Funds are applied to the structure, avionics and all other aircraft sub-systems to ensure aircraft service readiness and reliability.</p>																					
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:																					
Major milestones include the completion of the DFCS test program and WCS production deliveries.																					
FINANCIAL PLAN: (TOA, \$ in Millions)																					
	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RD/TAE																					
PROCUREMENT																					
Installation Kits																					
PRIOR YR (A Kits)	3101	36.3																	3101	36.3	
2ND EGI/ ASN-130A REPLACEMENT	113	1.1																	113	1.1	
AIRCRAFT WIRING UPGRADE	60	2.1																	60	2.1	
AN/USQ-113 KITS	257	34.8																	257	34.8	
DFCS	112	4.4		0.4															112	4.8	
FLIGHT CONTROL	181	4.3																	181	4.3	
HYDRAULIC SYSTEMS UPGRADE	88	10.6																	88	10.6	
OUTER WING PANEL	1	25.4																	1	25.4	
OUTER WING PANEL (SUPP)	47	130.1																	47	130.1	
SORS Kit	122	1.7																	122	1.7	
USQ-113 A KITS (SUPPLEMENTAL)	2	7.4																	2	7.4	
AVIONICS/ELECTRICAL READINESS (SUPP)		1.6																		1.6	
AIR VEHICLE STRUCTURES READINESS (SUPP)		1.9																		1.9	
SUB-SYSTEMS READINESS (SUPP)		1.8																		1.8	
WING CENTER SECTION	114	335.9																	114	335.9	
Installation Kits N/R	4	56.7																	4	56.7	
Installation Equipment																					
ASN-130A REPLACEMENT/2ND EGI	1	4.2																	1	4.2	
DFCS	73	9.3																	73	9.3	
EJECTION SEAT	1	0.3																	1	0.3	
HYDRAULIC SYSTEM UPGRADE - PR	1	0.2																	1	0.2	
MISSION REPROGRAMMING		11.2																		11.2	
POWER PC INTEGRATION	4	4.0																	4	4.0	
PRIOR YR EQUIPMENT (B Kits)	1949	89.3																	1949	89.3	
USQ-113 EXT B KITS (SUPP)	1	1.6																	1	1.6	
USQ-113 TOG B KITS (SUPP)	2	2.3																	2	2.3	
Installation Equipment N/R		57.2					2.4		2.0		2.0		1.1							64.6	
Engineering Change Orders		2.6					5.4		5.5		4.2		1.8							19.4	
Draws		14.5																		14.5	
Training Equipment	15	10.9																	15	10.9	
Support Equipment		16.6																		16.6	
ILS		4.8		0.3					1.2		1.6		0.8		0.1					8.9	
Other Support		82.9																		82.9	
Interim Contractor Support				0.5																0.5	
Installation Cost	1473	136.5																	1473	136.5	
<b>Total Procurement</b>		<b>1104.3</b>		<b>1.2</b>				<b>8.9</b>		<b>9.1</b>		<b>7.0</b>		<b>3.0</b>						<b>1473</b>	<b>136.5</b>
Notes:																					
1. Totals may not add due to rounding																					
2. Asterisk indicates amount less than \$51K																					

**Exhibit P-3a**

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

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Organic Installations.

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (73) kits	73	2.9																		73	2.9
FY 2009 ( ) kits																					
FY 2010 ( ) kits																					
FY 2011 ( ) kits																					
FY 2012 ( ) kits																					
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete ( ) kits																					
<b>TOTAL</b>	<b>73</b>	<b>2.9</b>																		<b>73</b>	<b>2.9</b>

Installation Schedule

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In	73																				
Out	62	11																			

In	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
										73
Out										73

Exhibit P-3a Individual Modification

MODIFICATION TITLE: ICAP III ( OSIP 001-01 )

MODELS OF SYSTEMS AFFECTED: EA-6 SERIES TYPE MODIFICATION: SAFETY OF FLIGHT / RELIABILITY

DESCRIPTION/JUSTIFICATION:

This Operational and Safety Improvement Program covers the EA-6B Improved Capabilities III (ICAP III) system modifications to install required radar and communications receiver, displays, and connectivity improvements. Additionally, this modification removed over 70 aging and unreliable Weapons Replaceable Assemblies (WRAs). Specifically, the modification program replaced the ALQ-99 Receiver System with the ALQ-218 receiver system, replaced the TDY-43 display system with a new COTS based display system for the Pilot and three Electronic Countermeasures Officers (ECMOs), upgraded the Recorder Reproducer Set with a new Digital Recorder, incorporated the Multi-Mission Advanced Tactical Terminal to provide reception of data links, incorporated the USQ-113 Communication Receiver/Jammer with the ALQ-218, updated mission planning for ICAP III to JMPS, and incorporated Link-16 to include basic electronic warfare battle management capabilities. The course of maturing ICAP III to full potential consists of Block upgrades to deliver approximately 24 months apart. FY07 OCO supplemental funding provided for the purchase of 7 additional ICAP III ALQ-218 systems to upgrade 7 EA-6B ICAP II 89A aircraft, the corresponding MIDS Link 16 systems and associated installation costs. Litening Pod integration provides a demonstrated capability and usefulness to support integrated targeting and convoy protection when using the AN/AAQ-28 LITENING Pod system on AV/8B aircraft in conjunction with EA-6B aircraft. LITENING Pod has been identified as critical capability in defeat and detection of terrorist threats. FY08 Supplemental funds provided to procure 9 ICAP III kits to support future USMC requirements.

JAMMER REHOST:

Rehosting of mission software in HOL provides a significant reduction in cycle time and allows timely response to evolving OCO threats. Additionally, it reduces maintenance cost for future mission software updates. It also enables additional jammer control unachievable with current code. Re-hosting the software greatly enhances our ability to respond to changing world threats at significantly reduced cost.

Decision to extend EA-6B joint expeditionary capability required funding in FY 2011 through FY 2014 to ensure aircraft mission systems readiness and reliability to counter increasingly sophisticated and agile threats to Fleet and Operating Forces throughout the remaining airframe service. Funds provided for all EA-6B mission systems readiness, obsolescence, inspections, installations and combat capability improvements. These must be applied to all ICAP II and ICAP III systems, to include the avionics, mission system hardware, mission system software and all other aircraft mission sub-systems.

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, a LRIP contract was awarded in FY03. Following completion of OPEVAL and a Milestone III decision, a full rate production contract was awarded in the 2nd quarter FY06.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
ICAP III	30	292.9																	30	292.9	
Litening		0.8																			0.8
Installation Kits N/R		6.0																			6.0
Installation Equipment		9.7																			9.7
Installation Equipment N/R		1.7					1.6	2.1	1.7	0.7											7.8
ECO							3.6	3.6	2.8	1.2											11.2
DATA		1.5																			1.5
TRAINING EQUIP	2	79.1																		2	79.1
Support Equipment		18.2																			18.2
ILS		3.9		0.2			0.8	0.3	0.2	0.1											5.5
Other Support		32.4		3.8																	36.1
Interim Contractor Support																					
Installation Cost	21	32.9		0.4			9													30	33.3
<b>Total Procurement</b>		<b>479.1</b>		<b>4.4</b>			<b>6.0</b>	<b>6.1</b>	<b>4.6</b>	<b>2.0</b>										<b>30</b>	<b>502.2</b>

- Notes:
1. Totals may not add due to rounding.
  2. Asterisk indicates amount less than \$51K.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: EA-6B Series Modifications MODIFICATION TITLE: ICAP III (OSIP 001-01)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Commercial.

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (30) kits	21	32.9		0.4	9															30	33.3
FY 2009 ( ) kits																					
FY 2010 ( ) kits																					
FY 2011 ( ) kits																					
FY 2012 ( ) kits																					
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete ( ) kits																					
<b>TOTAL</b>	<b>21</b>	<b>32.9</b>		<b>0.4</b>	<b>9</b>															<b>30</b>	<b>33.3</b>

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In	21					3	3	3														
Out	21									3	3	3										

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										30
Out										30

Exhibit P-3a Individual Modification

MODIFICATION TITLE: Intrepid Tiger AN/ALQ-228 Spiral (018-10)

MODELS OF SYSTEMS AFFECTED: EA-6 SERIES TYPE MODIFICATION: RELIABILITY/MISSION CAPABILITY

DESCRIPTION/JUSTIFICATION: The government based spiral effort for the AN/ALQ-228 Intrepid Tiger Pod, arising from deficiencies encountered with the currently fielded configuration, is to expand Electronic Attack (EA) effectiveness against current threat and provide adaptability to future threats. Key to this capability is network accessibility that includes CORPORAL derived infrastructure and integration on multiple USMC aviation platforms including the AV-8B Harrier.

The technology refresh includes the replacement of existing components to Open Architecture compliant and easily updateable hardware and software. Technique Generator Upgrade: Updates will enable new techniques to provide additional capability that counters existing and anticipated threat systems while maintaining an open architecture to allow future counter threat upgrades. Antenna Upgrades: Upgrades will expand frequency coverage to that of current and anticipated threat systems dynamically operating in a broad spectrum. Network Upgrade: Will enable a non-co-located operator access to pod functions and information via radio signals to enhance operational and tactical flexibility. Interface Upgrades: Will enable ground and air based users to configure and monitor pod operation and technique effectiveness. Other Supporting Upgrades: Includes hardware and software components that enable functions of power, cooling, status, control and connectivity as through processors, sensors, radios, RF components and support equipment critical to overall pod and system operation to include techniques, mission planning, operational execution, postflight analysis and shipping containers.

FY10 Overseas Contingency Operations (OCO) Supplemental funds provided to address deficiencies discovered during fleet operations and to incorporate the developed upgrades into 5 test ready EDMs required to mitigate capability and operational deficiencies to meet operational requirements and to conduct all required testing for fielding.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY2011		FY2012		FY2013		FY2014		FY2015		To Complete		Total		
	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						3.0															3.0
Engineering Change Orders						2.0															2.0
Data																					
Training Equipment																					
Support Equipment																					
ILS																					
Other Support																					
Interim Contractor Support																					
Installation Cost																					
<b>Total Procurement</b>						<b>5.0</b>															<b>5.0</b>

Notes:

1. Totals may not add due to rounding.

<b>Exhibit P-40, BUDGET ITEM JUSTIFICATION</b>							DATE: <b>February 2010</b>						
APPROPRIATION/BUDGET ACTIVITY <i>Aircraft Procurement, Navy/APN-5 Aircraft Modifications</i>							P-1 ITEM NOMENCLATURE <b>051300 AEA SYSTEMS</b>						
Program Element for Code B Items:							Other Related Program Elements						
	Prior Years	ID Code	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total
QTY		A											
COST (In Millions)		A			33.8		33.8	34.7	38.6	36.4	30.4		173.8
<p>DESCRIPTION:</p> <p>This line item is new in FY 2011. This line item funds modifications to Airborne Electronic Attack (AEA) products that are used on multiple platforms. Modifications budgeted and programmed include: procurement of Low Band Transmitter (LBT) inventory, ALQ-99 Tactical Jamming System (TJS) upgrades and installations, Improved Tactical Air Launch Decoy (ITALD-J) upgrades and installations, and ALQ-99 viability modifications.</p> <p>AEA products were funded in FY 2010 and earlier in the EA-6 Series Budget Line Item (0511).</p>													
<b>OSIP No.</b>	<b>Description</b>	<b>Prior Years</b>	<b>FY2009</b>	<b>FY2010</b>	<b>Base FY2011</b>	<b>OCO FY2011</b>	<b>Total FY2011</b>	<b>FY2012</b>	<b>FY2013</b>	<b>FY2014</b>	<b>FY2015</b>	<b>To Complete</b>	<b>Total</b>
007-11	AEA SYSTEMS				33.8		33.8	32.3	38.4	36.4	30.4		171.3
009-12	ITALD-J							2.3	0.2				2.5
<b>Total</b>					<b>33.8</b>		<b>33.8</b>	<b>34.7</b>	<b>38.6</b>	<b>36.4</b>	<b>30.4</b>		<b>173.8</b>
<p>Note: Totals may not add due to rounding.</p>													

Exhibit P-3a Individual Modification

MODIFICATION TITLE: AEA Systems (OSIP 007-11)

MODELS OF SYSTEMS AFFECTED: MULTIPLE PLATFORMS TYPE MODIFICATION: RELIABILITY / MISSION CAPABILITY

DESCRIPTION/JUSTIFICATION:

LOW BAND TRANSMITTER:

The Low Band Transmitter (LBT) provides 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. 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.

LBT is a replacement for three AN/ALQ-99 transmitters that have found new and greatly expanded employment in the Overseas Contingency Operations (OCO), providing protection to Coalition air and ground forces in continuous, direct contact with enemy forces. LBT combines the functionality of the modified transmitters into a single highly reliable solid state transmitter, increasing both availability and mission effectiveness. The LBT increases reliability and flexibility. OCO support has required more sustained jamming than projected and resulted in higher system failure rates. The LBT is an O-Level remove and replace item. This capability will be available for all EA-6B/EA-18G aircraft, which includes four Naval Air Reserve aircraft. The Extended Low Band Radome (ELBR) currently flown on the EA-6B is structurally incompatible with the EA-18G. EA-18G compatible Extended Low Band Radomes (GELBRs) need to be produced for the integration of the ALQ-99 onto the EA-18G.

SUPPORT EQUIPMENT: Introduction of new/modified ALQ-99 pod equipment requires new/modified organizational, intermediate and depot level support equipment, such as modifications and additions to the pod test set to support Low Band Transmitter and modifications to High Power Device Test Sets to extend frequency coverage to test Band 9/10 transmitters. Changes to existing support equipment will be needed to improve reliability/maintainability/availability, address obsolescence issues, and correct deficiencies found in testing or in the field.

ENGINEERING CHANGES: This ALQ-99 PODS Operational and Safety Improvement Program covers system modifications required to improve ALQ-99 reliability/maintainability/availability, enhance mission capability, interface/integrate with evolving Electronic Attack systems, resolve obsolescence issues, and correct deficiencies found in testing or in the field.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Following a competitive acquisition and Milestone II approval, Engineering and Manufacturing Prototype and Low Rate Initial Production (LRIP) testing conducted at government and contractor facilities successfully demonstrated the key performance parameters identified in OPNAV/N88 Itr Ser No. N880C3/6S663399 of 26 JUL 96 can be attained with the present design. Testing of LRIP units began in April 2007, Milestone III was achieved in April 2008 and a Full Rate Production (FRP) contract was awarded June 2008. In response to the increasing force protection requirement, an Early Operational Capability (EOC) for LBT was met in August 2006.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits N/R																					
Installation Equipment																					
EXTENDED LOW BAND RADOME							28	3.3	26	3.1	18	2.3							72	8.7	
ALQ 99 BAND TWT IM																					
BAND 9/10 GFE																					
BAND 9/10 RADOME																					
BAND 9/10 TRANSMITTER CONG																					
LOW BAND TRANSMITTER							9	12.6	17	22.9	22	30.2	20	29.6	4	10.8			72	106.2	
PAO TRANSMITTER MOD																					
REPAIR OF GFE (UEU)																					
UNIVERSAL EXCITER UPGRADE																					
Installation Equipment N/R								6.4		2.1		0.9		1.4		7.6					18.4
Engineering Change Orders								6.5		2.1		2.1		1.2		0.9					12.8
Data								*				*		0.1		0.1					0.2
Training Equipment																					
Support Equipment								*						0.2		0.2					0.4
ILS								4.2		2.1		1.7		2.2		7.7					17.8
Other Support								0.7				1.2		1.8		3.1					6.7
Interim Contractor Support																					
Installation Cost																					
<b>Total Procurement</b>								<b>33.8</b>		<b>32.3</b>		<b>38.4</b>		<b>36.4</b>		<b>30.4</b>					<b>171.3</b>

Notes:

1. Totals may not add due to rounding.
2. Asterisk indicates amount value less than \$51K.
3. 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).

**Exhibit P-40, BUDGET ITEM JUSTIFICATION**

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/APN-5 Aircraft Modifications							P-1 ITEM NOMENCLATURE 051400, AV-8 SERIES						
Program Element for Code B Items:							Other Related Program Elements						
	Prior Years	ID Code	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total
QTY													
COST (In Millions)	735.5	A	87.9	51.2	19.4	72.1	91.5	18.4	24.3	21.4	11.0	81.2	1,122.5

DESCRIPTION: This line item funds modifications to T/AV-8B aircraft. The AV-8B is a single engine, single crew member 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 from ships and austere forward bases in direct support of ground forces. The overall goal of the modifications budgeted in FY 2011 is to continue incorporation of Readiness Management Plan systems; electrical and structural changes; upgrade air-to-air weapon system employment and integration components; inventory sustainment and upgrade efforts to offset obsolescence and attrition; incorporation of Litening Pod upgrades; and incorporation of AV-8B F402-RR-408 engine safety and operational changes. FY09 Overseas Contingency Operations (OCO) funding for AV-8B Expeditionary Litening Pod Upgrade to increase combat capability and ALE-47 capability to address obsolescence and improve readiness. FY10 OCO funds provided for Attrition Recovery upgrade to address mission availability, and combat relevance and operational safety and ALE-47 capability to address obsolescence and improve readiness. In addition, FY11 OCO for AV-8B Expeditionary Litening Pod Upgrade to increase combat capability.

The AV-8B active inventory (5 Jun 2009) consists of 4 major configurations:

- 16 Two-Seat TAV-8B aircraft
- 5 DAY Attack aircraft
- 36 NIGHT Attack aircraft
- 89 Night Attack/RADAR aircraft

Retrofit quantities of each ECP depend on the aircraft configuration type & when the change was introduced into production.

The specific modifications budgeted and programmed are:

OSIP No.	Description	Prior Years	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total
001-91	OMNIBUS O&S IMPROVEMENTS	94.3	.1										94.4
003-96	KAPTON WIRE REPLACEMENT	39.2	*										39.2
025-99	TAV-8B PERFORMANCE UPGRADE	110.7	.2										110.9
023-00	AV-8B LITENING POD	239.8	39.1	4.6	4.5	72.1	76.6	2.0	2.1	2.2	2.3	13.2	382.0
012-02	OPEN SYSTEMS CORE AVIONICS REQUIREMENT	104.7	3.9	1.6									110.2
002-04	ENGINE LIFE MANAGEMENT PROGRAM	25.0	5.4	4.3	4.4		4.4	4.7	4.2	4.6	4.4	14.0	71.0
25-04	ALE-47	10.5	13.1										23.6
006-06	OBSOLESCENCE REPLACEMENT	22.5	8.4	11.2	9.6		9.6	11.5	18.0	14.6	4.3	54.1	154.3
015-07	AV-8 ATTRITION RECOVERY	36.8	17.7	29.5	.8		.8	.2					85.0
	INACTIVE OSIPS	52.0											52.0
	<b>Total</b>	<b>735.5</b>	<b>87.9</b>	<b>51.2</b>	<b>19.4</b>	<b>72.1</b>	<b>91.5</b>	<b>18.4</b>	<b>24.3</b>	<b>21.4</b>	<b>11.0</b>	<b>81.2</b>	<b>1,122.5</b>

Note: Totals may not add due to rounding.

Exhibit P-3a Individual Modification

MODIFICATION TITLE: AV-8B LITENING POD (OSIP 023-00)

MODELS OF SYSTEMS AFFECTED: AV-8B Night Attack & Radar/Reman 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 and JDAM (Joint Direct Attack Munition). The system will provide targeting capabilities for the AV-8B fleet of Night Attack and Radar aircraft through the end of its 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 were provided to procure additional pods. Congressional add of \$3.25M FY-07 provided to upgrade litening targeting pods. FY07 supplemental funds were provided for AV-8B Litening capability on Station 4/Centerline to support the movement of the litening targeting pod to the AV-8B centerline station allowing carriage of both left and right hand configured pods, which increased the AV-8Bs ordnance capacity by 200%. Reduced sensor masking and elimination of asymmetry problems associated with targeting pod carriage on a wing station will yield better aircraft handling, increased bring-back capability, and significantly increased combat effectiveness in support of OIF and Overseas Contingency Operations (OCO). FY08 supplemental provided for Station 4 kit procurement. Per direction of HQMC Aviation Plans and Weapons (APW) - the AV-8B Program Office has been designated as the single management authority in order to procure, integrate and manage the Litening Pod program on all USMC (AV-8B/F-18/EA-6B) platforms in order to maintain commonality within the USMC TACAIR for Litening capabilities. FY09 OCO \$32.0M were provided to procure, upgrade and integrate GEN4 LITENING Targeting pods ability on the AV8B, F/A-18, and EA-6B platforms. FY11 OCO of \$43.2 was requested to continue the effort that was initiated with FY09 OCO to further the requirement of the USMC to obtain operational LITENING Pod quantity of 191.

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 FY00. 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 FY00. The integration utilized 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 FY02. Additional full Litening integration to utilize targeting information from the Litening Pod in OC1.2 to create aircraft targeting solutions was developed and tested under this OSIP and introduced under the H20 OFP program. Video datalink with the ability to transmit Litening POD video (to Rover III grand stations utilized by forward air controllers) was introduced as Rover upgrades. Station 4 efforts determine feasibility of carrying the Pod on centerline station to allow for more weapons carriage on other wing stations. The ability to carry the Litening Pod on wing stations 2, 5, 6 and multi-target cueing is included in the H4.0/H5.0 Program. Upgrades include retrofit of current Rover Pods with new transmitters and upgrading existing Pods to Rover configuration. Congressionally directed funding in the amount of \$1.7M in FY06 and \$4.2M in FY07 was allocated for Litening on Station 4 (Centerline) in support of Overseas Contingency Operations (OCO). Congressionally directed funding in the amount of \$3.25M in FY07 for Litening Pod Upgrade. FY07 Supplemental directed funding, in the amount of \$9.5M, enabled IP communications (chat, status of forces, imagery, and pre-formatted messages) via radio relay among dispersed tactical elements and provide enhanced collaboration capability between EA-6B, F-18 and AV-8B pilots and corresponding Joint Forward Air Controllers (JFACs) and Tactical Air Control Party/Post (TACP) personnel, allowing more accurate targeting and faster assessments. FY07 Supplemental directed funding, in the amount of \$19.5M for the CORPORAL JCTD which provides a capability that is extended through the EPLRS radio resident in the Litening Pod and is flown on the AV8B, F/A-18, and EA-6B. That capability requires modification to existing services or the addition of new services to all providers that will be part of the network that the JCTD will construct to include Litening Pods, Ground Users, and UAVs. Funds will also be used to procure additional litening pods and upgrade pods in the present inventory. FY09 OCO directed funding, in the amount of \$32.0M and FY11 OCO requested funding of \$43.2M is to initiate procurement of GEN 4 LITENING Pod for USMC platforms (AV8B, F/A-18, and EA-6B) and also initiated LITENING Pod common operational flight program to development and integration on all USMC LITENING Pod capable platforms.

FINANCIAL PLAN: (1 OA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
Litening PD/ROVER	2	4.9																		2	4.9
Night	44	.1																		44	.1
POD RETROFIT KITS	47	3.9																		47	3.9
Radar	47	.1																		47	.1
Reman	47	.1																		47	.1
Station 4 Pods	91	6.0	34	2.0																125	8.0
Installation Kits N/R		7.6																			7.6
Installation Equipment																					
CFE PODS	96	124.6																		96	124.6
Pod Upgrade Kits (AV-8B)**	42	12.7	8	3.2	3	1.1	1	.4	1	.4	1	.4	2	.8	3	1.7	19	8.2		80	28.9
Pod Upgrade Kits (AV-8B)** (OCO)							11	5.6												11	5.6
POD GEN4 (F/A-18A/C/D)	5	10.0	5	7.8			1	2.4												11	20.2
POD GEN4 (F/A-18A/C/D) (OCO)							26	52.0												26	52.0
POD GEN4 (EA-6B)																					
MULTI STATION	127	1.9																		127	1.9
Installation Equipment N/R		8.5		22.4																	30.9
Installation Equipment N/R (OCO)							13.1														13.1
Engineering Change Orders		1.7																			1.7
Data		1.2					.3														1.5
Training Equipment		5.8		.5		.3															6.6
Support Equipment		1.6																			1.6
ILS		2.1		1.0		.6		.1													3.8
ILS (OCO)								.9													.9
Other Support		46.3		2.1		1.1		.5		4		.5		.4		.7		5.0			57.0
Other Support (OCO)								.5													.5
Interim Contractor Support																					
Installation Cost	7	.7			26	1.2	24	1.1	25	1.2	26	1.2	17	1.0						125	6.4
<b>Total Procurement</b>		<b>239.8</b>		<b>39.1</b>		<b>4.6</b>		<b>76.6</b>		<b>2.0</b>		<b>2.1</b>		<b>2.2</b>		<b>2.3</b>		<b>13.2</b>			<b>382.0</b>

Notes:  
 1. Totals may not add due to rounding  
 2. Asterisk indicates amount less than \$51K

**Exhibit P-3a**

MODELS OF SYSTEMS AFFECTED: AV-8B Night Attack & Radar/Reman MODIFICATION TITLE: AV-8B LITENING POD (OSIP 023-00)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Depot Installation

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 11 Months

CONTRACT DATES: FY 2009: Various FY 2010: Various FY 2011: Various

DELIVERY DATE: FY 2009: Various FY 2010: Various FY 2011: Various

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (91) kits	7	.7			26	1.2	24	1.1	25	1.2	9	.4								91	4.6
FY 2009 (34) kits											17	.8	17	1.0						34	1.8
FY 2010 ( ) kits																					
FY 2011 ( ) kits																					
FY 2012 ( ) kits																					
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete (0) kits																					
<b>TOTAL</b>	<b>7</b>	<b>.7</b>			<b>26</b>	<b>1.2</b>	<b>24</b>	<b>1.1</b>	<b>25</b>	<b>1.2</b>	<b>26</b>	<b>1.2</b>	<b>17</b>	<b>1.0</b>						<b>125</b>	<b>6.4</b>

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	7					5	7	7	7	6	6	6	6	7	7	6	5	7	6	7	6
Out	7					5	7	7	6	7	6	6	6	6	7	7	9	3	5	6	7

  

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In	6	6	5							125
Out	6	7	6	6						125

Exhibit P-3a	Individual Modification		
MODIFICATION TITLE:	<u>ENGINE LIFE MANAGEMENT PROGRAM (OSIP 002-04)</u>		
MODELS OF SYSTEMS AFFECTED:	<u>TAV-8B, AV-8B Day, AV-8B Night, AV-8B Night/Radar</u>	TYPE MODIFICATION:	<u>Safety</u>
DESCRIPTION/JUSTIFICATION:			
<p>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 F-402-RR-408 Engine.</p>			
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:			
<p>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&amp;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 tri-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.</p>			
<p>ECP-589 GTS Chip Detector - New chip detector for early detection of potential  ECP-951 GTS Exhaust Duct  ECP-3532 Bulkhead Cracking  ECP-3584 PPC 180  ECP-3605 Change the quill shaft number from 1760-4004 to 1910-4002 for -408 Engine FMUs.  ECP-3629 Revised Oil Breather Vent Pipe  ECP-3641C1/PPC 196  ECP-3647 Improved Alignment of Bulkhead Sealing Rings  ECP-3705R1 Two Piece Bottom Heat Shield ECP- 3754 HP8 Pipe Clamps  ECP-3733 PPC 213  ECP-3739 PPC 214  ECP-3743 PPC 215  ECP-3745 Combustion Chamber Improvement  ECP-3800 PPC 223, QEC 3  ECP-3800 PPC 216  ECP-3806 Rear Nozzle Trimmers - Pad for Centrally Tied Trimmer  ECP-3813 Oil Piping #3 Vane  ECP-3843 Sand Tolerant NGV - Revised NGV's to improve durability and increase  ECP-3848R1 HPC Casing Manifold Bridge Pipe  ECP-3852 LPC Stage 2 Vanes Hard Coating  ECP-3854R1 LPC3 Vane Sealing Strip  ECP-3855 LPCI Dampning Foil  ECP-3868R1 Improved GB Lubrication  ECP-3881 FMU Shut Off Valve  ECP-3883 Introduction of IBI  ECP-3886 PDR Assembly component life damaging particles within the GTS  ECP-3887 IGV Position Transmitter with Rev. Drive Shaft  ECP-3898 Introduction of replacement gears at various engine locations  ECP-3903 Modified BOV to prevent stiction  ECP-3904 Encapsulated Revision  ECP-3905 FMU DRIVE SHAFT  ECP-3892 LPC Rotor 2 Blade with Revised Stagger Angle  ECP-3893 LPS 1, 2, &amp; 3 Van Serialization  IPPC 227 FDS</p>			
<p>The following TBD ECP's are revisions to improve durability and increase component life and or introduce new parts due to obsolescence  ECP-TBD GTS PWR Turbine/Compressor RGV/Compressor Turbine - Revision due to obsolescence, introduces a new part number.  ECP-TBD CCOC Thermocouples  ECP-TBD HPC Vane Modification  ECP-TBD LPT1 Liner  ECP-TBD Introduction of new HPT2 Blade  ECP-TBD Fine Oil Filter  ECP-TBD Control System Obsolescence  ECP-TBD EVICS IDEC POR Correction  ECP-TBD EVICS IDEC Diagnostic Improvements  ECP-TBD EVICS Obsolescence</p>			

ECP-TBD EVICS HMU Pilot Valve Improvements  
 ECP-TBD DECU Obsolescence  
 ECP-TBD Final Drive End-Similar to RAF design  
 ECP-TBD Hot nozzle redesign - cracking problem  
 ECP-TBD Exhaust Diffuser Redesign  
 ECP-TBD Thrust Push Improvements  
 ECP-TBD GTS Improvements  
 ECP-TBD No 2 Bearing Re-design  
 ECP-TBD LPC1 Vane Thick Trailing Edge  
 ECP-TBD LPB Production Processing of F402 LPC 1 Blade Root (dovetail)  
 ECP-TBD LPB Production Processing of F402 LPC Stage 1 Disk Slots  
 ECP-TBD DECU/FMU WOW/ Improvements  
 ECP-TBD LPC 1 Blade FOD Tolerance (LPB)  
 ECP-TBD LPC 1 Blade Dovetail Coatings (LPB)  
 ECP-TBD #2 Bearing Redesign  
 ECP-TBD PLAU Shut Off Valve  
 ECP-TBD Obsolescence, starter contactor  
 ECP-TBD Obsolescence, protection unit  
 ECP-TBD Obsolescence, starter motor  
 ECP-TBD New break-in box with expanded capability  
 ECP-TBD Power turbine rotor blade failure fix  
 ECP-TBD Nozzle and spigot ring assy material change for improved reliability  
 ECP-TBD New Starter Contactor - improved reliability  
 ECP-TBD FMU Obsolescence ECP  
 ECP-TBD 2 Transducer modification  
 ECP-TBD DCU Redesign  
 ECP-TBD EMS  
 ECP-TBD HPT Blade Coating (Aluminide)  
 ECP-TBD SET 2006-F402-01 (LPB Vanes)  
 ECP-TBD LPCI Redesign  
 ECP-TBD DECU Phase Software  
 ECP-TBD Disk Slot Treatment (LPB)  
 ECP-TBD GTS Break Seal

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
ECP-3843 SAND TOLERANCE	91	6.5	18	1.6	5	0.5	6	.6	8	0.9	3	.4	2	.3	2	.3				135	11.0
ECP-589 MAGNETIC CHIP DETECTOR	309	1.4																		309	1.4
Installation Kits N/R		.1																			.1
Installation Equipment																					
ECP-TBD DUAL TRANSDUCER																					
ECP-TBD Engine Monitoring Unit (EMU)																					
Installation Equipment N/R				.4																	.4
Engineering Change Orders																					
Data		1.8		.5		.4		.4		.4		.5		.5		.5		3.3			8.3
Training Equipment																					
Support Equipment		5.7		1.1		1.6		1.5		1.5		1.4		1.7		1.3		1.1			16.9
ILS		6.4		1.5		1.5		1.7		1.7		1.9		2.0		2.2		7.6			26.5
Other Support		3.0		.3		.3		.2		.2		.2		.2		.2		2.0			6.4
Interim Contractor Support																					
Installation Cost																					
<b>Total Procurement</b>		<b>25.0</b>		<b>5.4</b>		<b>4.3</b>		<b>4.4</b>		<b>4.7</b>		<b>4.2</b>		<b>4.6</b>		<b>4.4</b>		<b>14.0</b>			<b>71.0</b>

- Notes:
1. Totals may not add due to rounding
  2. Asterisk indicates amount less than \$51K
  3. EMS Kits are comprised of DUAL TRANSDUCER and Engine Monitoring Unit (EMU)
  4. EMS Kits are "O" Level Installations.
  5. EMU kit quantity is based on the number of aircraft.
  6. Dual Transducer quantity is based on the number of engines.

Exhibit P-3a

Individual Modification

MODIFICATION TITLE: OBSOLESCENCE REPLACEMENT (OSIP 006-06)

MODELS OF SYSTEMS AFFECTED: T/AV-8B

TYPE MODIFICATION: Safety

DESCRIPTION/JUSTIFICATION:

This OSIP provides for maintaining the readiness of the AV-8B weapons system until its projected end of service, which is now expected to extend to 2025 or until replaced by STOVL JSF. This requires the airframe and integrated systems to exceed planned service life and will require both systems modification and obsolescence solutions. Funds will be utilized to manage, prepare, process and incorporate ECPs and implement changes to sustain and improve AV-8B weapons system readiness including safety, mission availability, structural integrity, air-to-air weapon system employment, and component (avionics/systems) reliability, maintainability, and obsolescence conditions as they arise. This program may be required to provide timely remedial action for any aircraft system, component or structure. Due to fleet aircraft PAA inventory shortfalls, all depot level modification installations must be planned and programmed concurrent with Integrated Maintenance Plan (IMP) scheduled depot overhaul events to minimize aircraft out-of-service periods, unless safety or aircraft availability require stand alone installations.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Non-recurring engineering and ILS work on new ECPs began in FY07 for future ECP procurements and installations. O-Level kits and first initial D-level val/ver kits will be procured in FY07, with first depot level installations to occur in FY08. Kit procurements and installations will continue in FY09, and throughout the FYDP. Support equipment procurements will continue to support future installations and manage aircraft obsolescence.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
ECP-282 Fuel Coupling P1	151	.331																	151	.3	
ECP-282 Fuel Coupling P2	35	.354	21	.3	25	.4	30	.5	19	.4									130	2.0	
ECP-283 Water Tank Pre-Filter	149	.526																	149	.5	
ECP-CP-042 Ctr Tank Mod	6	.319	15	.7	5	.3	6	.3	7	.4	9	.5					48	3.2	96	5.7	
ECP-CP-044 PMI/EMU	150	.093																	150	.1	
ECP-CP-045 DC Contactor	1	*			145	1.3													146	1.3	
ECP-PMA-001 Pylon Hooks	1,057	*																	1,057	*	
ECP-321 MLG UTLP			146	.6															146	.6	
ECP-323 NLG Steering Dowel Pin	2	.1	48	*	48	*	43	*											141	.2	
ECP-322 Blow-Down Bottle	148	.1																	148	.1	
ECP-324 Forward ECS Ram Air Duct			89	.7															89	.7	
ECP-TBD Bullet Fairing Replacement											2	.2					95	6.7	97	6.9	
ECP-TBD Tail Plane Guide									2	.1	40	.9	40	.9	39	1.0			121	2.9	
ECP-CP-049 LERX																					
ECP PMA-2009-0004 Frame 43 Bushings					2	.1	40	.8	40	.9	40	.9	1	*					123	2.7	
ECP TBD Advanced Memory Unit (AMU)																	131	1.1	131	1.1	
Installation Kits N/R		3.4		.9		.6		.6		.5		1.1		.8				.2		8.0	
Installation Equipment																					
30KVA Generators	18	4.1																	18	4.1	
ECP-TBD Display Computer Kits									12	1.6	48	7.4	39	6.5					99	15.5	
ECP-303 EAAS					168	.6													168	.6	
ECP-TBD Thermal Battery					2	*	139	1.6											141	1.6	
ECP-326 Struct Servicing Indicators																	97	2.5	97	2.5	
FLE TRACKING		.4																		.4	
ECP-PMA-002 Cargo Pods	36	1.1																	36	1.1	
ECP-TBD Takeoff & Ldg Checklist			1	*	162	2.3													163	2.3	
ECP TBD Digital Video Recorder (DVR)																	145	7.7	145	7.7	
Aircraft Delivery Unit (ADU) 830 Adapters																	55	2.4	55	2.4	
Installation Equipment N/R		*		.5		.4		.7		.8		.2						.7		3.2	
Engineering Change Orders																					
Data		1.2		.1		.3		.1		.4		.2								.1	
Training Equipment						*				.2		.7								*	
Support Equipment		3.9		.2		.3		.5		.7										5.5	
ILS		.6		.1		.1		.1		.5		.2								.2	
Other Support		5.9		2.3		1.9		2.7		2.7		2.7		2.8		2.8			14.2	37.9	
Interim Contractor Support																					
Installation Cost	2	.1	32	1.9	44	2.6	77	1.8	121	2.6	112	3.0	98	3.6	41	.6	182	15.2	709	31.3	
<b>Total Procurement</b>		<b>22.5</b>		<b>8.4</b>		<b>11.2</b>		<b>9.6</b>		<b>11.5</b>		<b>18.0</b>		<b>14.6</b>		<b>4.3</b>		<b>54.1</b>		<b>154.3</b>	

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than \$51K
3. FY11 Other Support funding increased due to management costs associated with a greater number of installations, and with full burden of PMA/Field activity engineering/logistics experts previously shared by Oscar OSIP 12-02.

**Exhibit P-3a**

MODELS OF SYSTEMS AFFECTED: T/AV-8B MODIFICATION TITLE: OBSOLESCENCE REPLACEMENT (OSIP 006-06)

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 or Contractor Drive In Mod or FMT.

ADMINISTRATIVE LEADTIME: Various Months PRODUCTION LEADTIME: Various Months

CONTRACT DATES: FY 2009: Multiple FY 2010: Multiple FY 2011: Multiple

DELIVERY DATE: FY 2009: Multiple FY 2010: Multiple FY 2011: Multiple

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2008 & PY (44) kits	2	.1	30	1.6	12	.2													44	2.0
FY 2009 (84) kits			2	.3	30	2.3	52	.5											84	3.2
FY 2010 (80) kits					2	.1	25	1.2	53	.4									80	1.7
FY 2011 (119) kits									68	2.2	51	.6							119	2.7
FY 2012 (68) kits											61	2.4	7	.5					68	2.9
FY 2013 (91) kits													91	3.1					91	3.1
FY 2014 (41) kits															41	.6			41	.6
FY 2015 (39) kits																	39	.6	39	.6
TO COMPLETE (143) kits																	143	14.6	143	14.6
<b>TOTAL</b>	<b>2</b>	<b>0.1</b>	<b>32</b>	<b>1.9</b>	<b>44</b>	<b>2.6</b>	<b>77</b>	<b>1.8</b>	<b>121</b>	<b>2.6</b>	<b>112</b>	<b>3.0</b>	<b>98</b>	<b>3.6</b>	<b>41</b>	<b>0.6</b>	<b>182</b>	<b>15.2</b>	<b>709</b>	<b>31.3</b>

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	2	8	8	8	8	11	11	11	11	22	22	22	11	31	31	31	28	28	28	28	28
Out	2	8	8	8	8	11	11	11	11	22	22	22	11	31	31	31	28	28	28	28	28

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In	25	25	25	23	13	13	13	2	182	709
Out	25	25	25	23	13	13	13	2	182	709

Exhibit P-3a

Individual Modification

MODIFICATION TITLE: AV-8 ATTRITION RECOVERY DAY TO NIGHT (OSIP 015-07)

MODELS OF SYSTEMS AFFECTED: AV-8B TYPE MODIFICATION: Upgrade

**DESCRIPTION/JUSTIFICATION:**

The present AV-8B inventory is insufficient to maintain Primary Authorized Aircraft (PAA), provide for an effective Integrated Maintenance Plan (IMP), allow for crash damage repair and attrition, and accomplish timely reliability and capability upgrades through transition to JSF. Currently obsolete configured AV-8B Harrier aircraft will be restored to fleet representative configuration through modifications primarily integrated by the prime contractor to compensate for attrition and the resultant PAA shortfall. Individual aircraft kits will vary based on utilization and configuration at the time the aircraft was taken out of service. Rolls-Royce Pegasus -408B engines will be provided from current fleet inventory. Modification engineering integration and incorporation of components and systems are to be performed by the contractor, augmented by government field activity GFE component baselining and RFI certifications as required. FY07 Overseas Contingency Operations (OCO) supplemental funding was provided to accelerate upgrade of the first attrition recovery aircraft, a Day Attack configured aircraft, into a Night capable asset. Failure to address inventory shortfalls will progressively aggravate the effect of PAA deficiencies on mission availability and combat relevance to OCO, as well as operational safety. While this is not a total aircraft inventory solution, the additional aircraft will help sustain AV-8B operational aircraft in squadrons supporting OCO.

The program has been funded \$22.5M of FY07 OCO funding. \$19.3M of FY10 OCO funding will provide for a fifth upgraded aircraft. These aircraft directly support ground operations in Iraq and Afghanistan and routinely deploy aboard LHA/D ships in support of global security missions.

**DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:**

Non-recurring engineering, engineering change order work, and kit buys funded with 07 supplemental funding will deliver one upgraded aircraft in FY10. Two further aircraft mods began in FY08 and FY09, which will each also deliver upgraded aircraft in FY10. Fourth aircraft mod is scheduled to begin kit procurement in FY09, with mods to occur starting in FY10, delivering an upgraded aircraft in FY12. \$19.3M of FY10 OCO funding will provide for a fifth upgraded aircraft. This aircraft is scheduled to begin procurement in FY10, with mods to occur in FY11, delivering an upgraded aircraft in FY13.

**FINANCIAL PLAN: (TOA, \$ in Millions)**

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
Installation Kits (A Kits)	2	6.6	2	6.9	1	7.0													5	20.5	
Installation Kits (A Kits)--GFE	2	4.3	2	3.4	1	3.3													5	10.9	
Installation Kits N/R		12.1		2.5		1.7		.1													16.4
Installation Equipment																					
Install Equip (B Kits)	1	.1																	1	.1	
Install Equip (B Kits)--GFE	1	3.8	2	1.0	1	2.8													4	7.5	
Installation Equipment N/R																					
Engineering Change Orders																					
Data		1.6				.7															2.3
Training Equipment																					
Support Equipment		.2																			.2
ILS		.9				.4															1.2
Other Support		1.1		1.8		2.0		.7		.2											5.9
Interim Contractor Support																					
Installation Cost	2	6.1	1	2.1	1	11.7	1												5	20.0	
<b>Total Procurement</b>		<b>36.8</b>		<b>17.7</b>		<b>29.5</b>		<b>.8</b>		<b>.2</b>											<b>85.0</b>

- Notes:
1. Totals may not add due to rounding
  2. Asterisk indicates amount less than \$51K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: AV-8B MODIFICATION TITLE: AV-8 Attrition Recovery Day to Night (OSIP 015-07)

INSTALLATION INFORMATION: All modification kit materials will be delivered fully installed in the flight accepted aircraft.

METHOD OF IMPLEMENTATION: Installation will be accomplished by Contractor Drive-In Mod.

ADMINISTRATIVE LEADTIME: 9 Months PRODUCTION LEADTIME: Various Months

CONTRACT DATES: FY 2009: Various FY 2010: Various FY 2011: Various

DELIVERY DATE: FY 2009: Various FY 2010: Various FY 2011: Various

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2008 & PY (2)kits	2	6.1																	2	6.1
FY 2009 (2) kits			1	2.1	1	6.0													2	8.1
FY 2010 (1) Kits						5.7	1												1	5.7
FY 2011 ( ) kits																				
FY 2012 ( ) kits																				
FY 2013 ( ) kits																				
FY 2014 ( ) kits																				
FY 2015 ( ) kits																				
To Complete ( ) kits																				
<b>TOTAL</b>	<b>2</b>	<b>6.1</b>	<b>1</b>	<b>2.1</b>	<b>1</b>	<b>11.7</b>	<b>1</b>												<b>5</b>	<b>20.0</b>

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	2		1						1	1											
Out							1	2								1	1				

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										5
Out										5

Exhibit P-40, BUDGET ITEM JUSTIFICATION							DATE: February 2010						
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/APN-5 Aircraft Modifications							P-1 ITEM NOMENCLATURE 52500 F-18 Series Modification						
Program Element for Code B Items: 0204136N							Other Related Program Elements						
	Prior Years	ID Code	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total
QTY		A											
COST (In Millions)	3,470.6	A	464.3	559.9	492.8	43.3	536.1	470.9	446.6	598.1	559.1	1,610.3	8,715.8
<p>Description:</p> <p>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. The 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 tactical aircraft in dynamic scenarios. 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 fighter capabilities are available in either mission, a robust self defense capability is retained.</p> <p>FY 2010 includes \$32.3M OCO Supplemental Request for ALR-67 Self-protection upgrade to Version 3. FY 2010 total does not reflect decrease of \$67.3M from pending Above Threshold Reprogramming (FY 10-02-R) request for Helo Survivability. FY 2011 OCO Supplemental Request of \$43.3M for ALR-67 Self-protection upgrades to Version 3 (\$35M) and ATFLIR-Rover datalink modifications (\$8.3M). Aggregate FY 2010 and 2011 ALR-67 OCO requests restore funds used in ATR (FY 10-02-R).</p> <p>The overall goal of the modifications budgeted in FY 2011 is to implement commonality/capability and structural safety and reliability improvements. The specific modifications budgeted and programmed are:</p>													
(TOA, \$ in Millions)													
OSIP No.	Description	Prior Years	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total
011-84	Correction of Discrep.	683.1	85.3	56.7	58.6		58.6	53.1	54.2	61.6	62.6	29.1	1,144.3
012-96	PIDS	66.1	0.2										66.2
010-99	DCS	23.0	1.2	0.8									24.9
011-99	SLMP	488.8	101.5	113.1	117.5		117.5	122.1	165.9	160.0	138.1	199.4	1,606.2
012-99	MIDS	358.1	21.9	10.3	*		*		0.1	0.4	15.1		406.0
021-00	USMC F/A-18 UPGRADE (ECP583)	285.3	15.4	17.5	18.2		18.2	10.6	25.4	41.7	11.9	11.6	437.6
024-00	JHMCS	148.2	36.5	38.0	38.3		38.3	46.4	43.0	14.8	15.0		380.2
012-01	ATFLIR	681.1	39.8	36.3	20.9	8.3	29.2						786.3
019-01	E/F 2000 hr Correction of Discrep.	39.7	1.3										41.0
005-02	Digital Wing Tip for AIM 9X	3.2	0.2										3.5
006-02	C/D Training System	87.1	6.2	6.9	13.1		13.1	13.5	13.8	28.5	25.4	154.5	349.0
012-03	E/F 4000 hr Correction of Discrep.	10.2	0.3										10.5
013-03	E/F 6000 hr Correction of Discrep.	4.8	0.3										5.0
014-03	E/F Correction of Operational Discrep.	136.3	22.0	63.9	36.8		36.8	32.0	30.6	29.7	24.4	29.6	405.4
023-04	Core Avionics Upgrade	56.4	5.7	9.2	6.8		6.8	7.1	7.0	6.8	6.9		105.8
008-05	Reserve Squadron ECP560	14.6	0.2										14.8
009-06	Link 4A Replacement	11.0	1.8										12.8
002-07	AESA	121.6	108.1	44.7	126.2		126.2	70.8	28.8	81.6	88.1	1,092.8	1,762.6
013-07	SHARP	4.8	11.6										16.4
021-08	EW Unique		4.9	128.3		35.0	35.0						168.2
001-10	Network Centric Ops			31.7	47.6		47.6	105.3	67.8	84.1	50.1	21.4	407.9
011-10	EA-18G Unique			2.5	8.8		8.8	10.0	10.1	7.5	5.4		44.3
004-14	IRST									81.4	116.2	72.0	269.5
	Inactive OSIPS	247.5											247.5
<b>Total</b>		<b>3,470.6</b>	<b>464.3</b>	<b>559.9</b>	<b>492.8</b>	<b>43.3</b>	<b>536.1</b>	<b>470.9</b>	<b>446.6</b>	<b>598.1</b>	<b>559.1</b>	<b>1,610.3</b>	<b>8,715.8</b>

Totals may not add due to rounding.  
Asterisk indicates amount less than \$50K.

Exhibit P-3a	INDIVIDUAL MODIFICATION
MODIFICATION TITLE: <u>CORRECTION OF DISCREPANCIES IDENTIFIED DURING PRELIMINARY EVALUATION, SUBSEQUENT FLIGHT TEST PROGRAMS AND FLEET OPERATIONS (OSIP 011-84)</u>	
MODELS OF SYSTEM AFFECTED: <u>F/A-18 A/B/C/D</u>	TYPE MODIFICATION: <u>SAFETY /RELIABILITY/IMPROVEMENT</u>
<p>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:</p>	
<p>External Stores EMI Protection (ECP 087S1)            Auto AC Bus Isolation (ECP 121R1)            Battery Control Relay Unit (ECP 165R1)            FY86 Block Upgrade (ECP 178R1C1)            Center Fuselage Structural Mods (ECP 241R1)            Dorsal Longeron (ECP 251)            Dorsal Longeron (ECP 251R1)            470.5 Bulkhead (ECP 262)*            Righthand AMAD Bay (ECP 267R1)*            AFT Engine Mount (ECP 305R1)*            Y657.35 Engine Bay Door Former (ECP 306)            Main Landing Gear (MLG) Planning Link (ECP 311)*            MLG Trunnion Upgrade (ECP 319)*            Y488 Bulkhead (ECP 320)            Wing Fatigue Repair (ECP 353)            MLG Shoulder Bolt (ECP 355)            ASPJ System Improvement (ECP 364)            Y470 Bulkhead Improvement (ECP 365)            #1 Fuel Cell Floor (ECP 367)            MLG Retract Actuator (ECP 375)            Fretting on Formers &amp; Spindles (ECP 391)            Fuselage Skin, Y518 to Y534 (ECP 402)*            Fuselage Skin, Y518 to Y534 (ECP 402R1)*            Inlet Duct Skin at Y453 (ECP 417)            Y470.5 Bulkhead MLG Trunnion (ECP 428)            Speed Brake Trough (ECP 440)            SUU-63 Wing Pylon Door Panel (ECP 488)            Y470.5 Bulkhead Fatigue Change (ECP 492)            Fuselage Skin at Y453 (ECP 498)            Nacelle Skin Fatigue Improvements (ECP 501)            LAU-115 Sparrow Mod (ECP 506)*            ST-16 Failures (ECP 536)*            Improvement of Inner Wing SPAR (ECP 544)            Fuel Barrier Web (ECP 548)            Wing Drag Longeron (ECP 550)*            Y326.5 Plate Nut (ECP 561)            Lower Center Keel Fire Hazard (ECP 562)            Aileron/Trailing Edge Flap (ECP 574)            Serocylinder Test Station (ECP 598)            Hydraulic Temp Gauges (ECP NI 879)            Environment Control System Wiring (NI 742)            Wing Fuel Dams (NI 796)            MLG Trunnion Assembly (NI 824)            Heat Exchanger (NI 827)            Night Vision Display System (NVDS) (NI 830)            Trailing Edge Flap (NI 839)            ANTI G VALVE (ECP XXX)            Fuel Cell Floor Crack (ECP 973)</p>	<p>Provide for the application of external stores EMI Protection. This ECP includes Installation Costs ONLY.            Modifies the 50A Battery Charging Converter installation to automatically isolate the busses and reset the generators following a dual power outage.            Safety modification to the utility/emergency battery control circuits and adds a battery relay control unit. Prevents inadvertent battery discharge.            Increases the power handling capabilities of the four port antenna and the RF switch able filter in order to accommodate the RF power output requirements of the ASPJ System.            Improves fatigue for the Dorsal Deck, Duct Skin rivets at Y442, ECS Inlet Casting, and Y419 Nacelle Former at Ramp Truss Attachment.            Life extension modification to the Dorsal Longeron.            Life extension modification to the Dorsal Longeron.            Improves the fatigue life of the Y470.5 Bulkhead Outer Cap.            Reliability and maintainability improvement to the interference between the motive flow tube and the hot fuel recirculation tube.            Safety modification improves the aft engine mount support to prevent cracking in the aft engine mount support fitting.            Modifies the existing door former to prevent cracking.            Safety modification to the existing planning link assembly. Belleville washers spring is replaced with nested external compression springs to provide additional over center locking force and stroke capability.            Safety modification reconfigures and strengthens the MLG trunnion assembly to prevent catastrophic failure upon landing or takeoff.            Modifies the Y488 bulkhead to reduce structural stress and improve fatigue life.            Modifies the fastener holes in the Wing Panel Forward Spar and the #4 Intermediate Wing Spar to increase fatigue life.            Safety modification provides new shoulder bolts to correct a deficiency concerning elongation of the AFT bolt hole in the MLG Door Actuator Support Fitting.            Improves reliability and maintainability by improving the cooling system and correcting transmit switchable filter qual test problems.            Modifies the Y470 bulkhead to reduce structural stress and improve fatigue life.            Safety modification to improve the fuel cell floor strength to prevent cracking during catapult.            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.            Safety modification to correct fretting observed on outboard formers of horizontal stabilizer.            Modifies exterior fittings and adds and internal bathtub to strengthen the area, reduce structural stress, and improve fatigue life.            Modifies exterior fittings and adds and internal bathtub to strengthen the area, reduce structural stress, and improve fatigue life.            Addresses the retrofit design which will provide 12,000 SFH of life without cracks for the Inlet Duct Skin.            Corrects the deficiency in the MLG Trunnion support at Y470.5 bulkhead.            Modifies the existing speed brake trough area to strengthen it and improve fatigue life.            Safety modification to the existing door panel to preclude loss of the door during flight            Modifies the thickness of the existing bulkhead web to increase strength and improve fatigue life.            Safety modification to strengthen existing fasteners attaching the P/N 74A324350 former to Y453 bulkhead.            Retrofits the Inlet Nacelle Skin to correct acoustic vibration related fatigue failures.            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.            Modifies aircraft between Lot VI and Lot XVI or realize Full Life Airframe (6000 Fatigue Hours)            Strengthens the existing inner wing spar to improve fatigue life.            Safety improvement to the existing fuel barrier web to prevent fuel leaks.            Structural improvement to the Wing Drag Longeron due to tabs attached to the closeout webs were cracking during installation.            Modifies the existing fasteners at the Y326.5 Bulkhead to improve fatigue life.            Safety improvement to the secondary pressure regulator bay to eliminate fire hazards.            Provides a full-life improvement for aircraft degradation caused by cracked trailing edge flap and aileron hinges.            Provides for the upgrade of aging Peculiar Support Equipment. Improvements in reliability and maintainability of Peculiar Support Equipment and modification to existing Support Equipment.            Improves the reliability of the hydraulic temperature gauges.            Modifies wiring to the number 3 Relay Panel Assembly to connect the Left MainGear (LMG) Weight on Wheels (WOW) Relay ABD the Dump/DRAM Dump Relay.            Safety improvement modifies the inner wing inboard closure rib to prevent fuel leaks.            Safety improvement to the MLG trunnion assembly to improve fatigue life and prevent failed landing gear mishaps.            Provides for the removal of the nickel core and replaces with a more reliable stainless steel and nickel core.            Adds capability to the lighting system to make the NVDS compatible.            Safety modification to the trailing edge flap to correct flap departures while in flight.            Improves pilot G-Load tolerance as part of the Navy Combat Edge (NCE) Anti-G Protection System.            Safety modification to correct cracks at Y431, Y442, and Y453 in the fuel cavity floor deck centerline under tank two and three.</p>

AFT Fuselage Skin Crack (ECP592)  
 Wing SPAR Crack (ECP XXX5)  
 Forward Lower Keel Modification (ECP NI 931)  
 Main Landing Gear (MLG) Axle (ECP 952)  
 MLG Y488 Bulkhead (ECP 974NI)  
 OBOGS Solid-State Oxygen Monitor (SSOM), CRU-99/A (ECP 590)  
 Crease Longeron (ECP 608)  
 Heat Deterrent (ECP NI-1013-05)  
 MLG Planning Mechanism (ECP 1057NI)  
 Bay 3 Shelf Redesign (ECP XXX13)  
 Bay 4 Shelf Redesign (ECP XXX14)  
 Cockpit Pressurization Warning System (ECP 6217)  
 Vertical Tail (ECP XXX-16)  
 Canopy/Windscreen (ECP XXX-17)  
 NLG/MLG Fatigue Improvements (ECP-XXX18)  
 F/A-18 A-D INNER WING CONVERSION (ECP 609)  
 NFDS Mods, C&D Conversion (ECP-JAX-F18-001)  
 Interwing Conversion ECP XXX-21 (Bundled in ECP-609)  
 Repeatable Release Holdback Bar (ECP 0147)  
 Redesign of Backrest Operation Plunger (ECP-9384MB)  
 Inner Wing Structure Fatigue Improvement (ECP-1022NI)  
 TEF-Aileron Attach Lug Bushing (ECP-1034NI)  
 LEF Stop Module & Torque Limiter Improvement (ECP-1054NI)  
 AFT Fuselage Structure Failures (ECP-XXX23)  
 NACES Improved Upper Catapult Sleeve, Safety ECP (ECP-XXX24)  
 ECS/OBOGS Fitting Upgrade, Safety ECP (ECP 1036 NI)  
 ECP 1071 NI F/A-18 A-D MLG Planing Mechanism Assembly Perf Upgrade  
 ECP 6321R1 F/A-18 A-D MLG Doors Hing Pins Hdw Conv  
 ECP MB9425 Modified NACES Backplate  
 ECP MB9431 NACES Bracket Interim Support Kits  
 ECP XXX25 F/A-18 BD Canopy Sill Longeron Crack  
 ECP XXX26 F/A-18 A-D Structural Stress Corrosion Cracking Issues  
 ECP XXX27 F/A-18 A-D Subsystems Retrofit Upgrades Issues  
 ECP XXX28 F/A-18 A-D ECS Subsystems Upgrade Issues  
 ECP XXX29 F/A-18 A-D Fuel Related Upgrade Issues  
 ECP 1088 F/A-18 A-D Fuel Valve Interchangeability  
 ECP 1095 F/A-18 A-D MLG Side Brace Downlock Actuator Connection Link  
 ECP 6343 F/A-18 A-D External Fuel Tank Air Pressure Regulator (ETPR)

Safety improvement to the fatigue life of the forward skin section of the chem.-milled panels.  
 Strengthens the existing front inner wing SPAR to improve fatigue life.  
 Improves fatigue life of the Nose Landing Gear (NLG) Drag Brace.  
 Incorporation of Full Life redesigned Main Landing Gear Axle Polygon, extending Axle's service life from current 8300 total landings to 13000.  
 Restores Full Life to Y488 Bulkhead due to cracks around MLG Uplock hardware holes  
 Safety improvement to the OBOGS oxygen system, providing an additional monitoring capabilities against Hypoxia resulting in safer flight operation.  
 Restores the load path lost when the Crease Longeron cracks at FS 453.  
 Modifies the aircraft to correct structural fatigue problems caused by degraded ECS Peri-Seals.  
 Improve MLG components and reduce MLG planning link failures.  
 Modify avionic shelves to withstand catapult fatigue loads.  
 Modify avionic shelves to withstand catapult fatigue loads.  
 Notify pilot when pressurization is lost in cockpit.  
 Modify vertical tail former and spars to prevent fatigue cracking.  
 Modify canopy/windscreen frames and address delamination.  
 Fatigue Improvements to include arresting gear planning link redesign  
 Convert Lots 5 through 9 Inner Wings to be used on Lot 10 and above F/A-18C/D aircraft, and convert Lot 10 and 11 InnerWings to be used on Lot 12 and above F/A-18C/D aircraft.  
 Removing the weapon systems from the aircraft, install Smoke Generation System and install Auxiliary Fuel Pumps for extended inverted flight.  
 Converting Lot 10/11 Wings to Lot 12 and above configuration.  
 Modifies the RRHB to correct problems caused by degraded primary locking segments.  
 Safety ECP incorporation a redesigned knurled and rounded top plunger backrest part# MBEU148542.  
 Improving inner wing fatigue life Front SPAR.  
 To prevent electronic magnetic interference (EMI) tabs from gouging TEF/AIL hinges causing life limited restrictions.  
 Modification to correct failures in the LEF Torque Tubes Drive System Failures  
 Modification to correct failed AFT fuselage areas  
 Modification to incorporate a redesigned NACES upper catapult sleeve  
 Modification to prevent cracks in the interface to an from the OBOGS concentrator by replacing the aluminum coated TEE/Elbow bodies with stainless steel bodies.  
 Modification to provide the fleet with upgraded MLG planing mechanism components by replacing hollow piston with a solid piston to increase the resistance to bending/buckling  
 Modification of the MLG outboard forward hinge pin to prevent RHS outboard doors from departing the a/c and causing damage to surrounding structure  
 Modification to the NACES backplate prevent cracks  
 Modification to upgrade the NACES alloy catapult mounting bracket with stainless steel mounting bracket eliminating recurring periodic inspections  
 Modification to beef up the canopy sill Longeron to prevent severing condition  
 Modification to correct structural stress corrosion issues during fleet usage  
 Modification to correct discrepancies in the aircraft mechanical, hydraulic, electrical, and cooling systems  
 Modification to correct discrepancies within the ECS components and sub-component elements  
 Modification to correct discrepancies within the internal and external fuel tanks and fuel plumbing, including electrical components  
 Modification to upgrade fuel valves for configuration purposes  
 Modification to upgrade the MLG Actuator link  
 Modification to upgrade the external fuel tank air pressure regulator for the A-D fleet

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Each change has been or will be tested prior to installation in the F/A-18.  
 Unit cost variances due to: - Many ECP Kits were/are provided to the Navy at no additional cost (warranty kits).  
 - Some ECPs have numerous Technical Directives with different unit costs.  
 - Some ECPs require no kits, installs only.

Exhibit P-3a

Individual Modification

MODIFICATION TITLE: CORRECTION OF DISCREPANCIES IDENTIFIED DURING PRELIMINARY EVALUATION, SUBSEQUENT FLIGHT TEST PROGRAMS AND FLEET OPERATIONS (OSIP 011-84)

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

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	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																		356	0.7
ECP 165R1/Battery Control Relay Unit	251	0.5																		251	0.5
ECP 178/FY86 Block Upgrade	82	4.7																		82	4.7
ECP 241R1/Center Fuselage Structural Mods	1,719	0.6																		1719	0.6
ECP 251/Dorsal Longeron	1,926	0.8																		1926	0.8
ECP 251R1/Dorsal Longeron	443	8.6																		443	8.6
ECP 262/470.5 Bulkhead	494																			494	
ECP 267R1/Righthand AMAD Bay	287																			287	
ECP 276/Y508 Former	836	1.0																		836	1.0
ECP 305R1/AFT Engine Mount	619																			619	
ECP 306/Y657.35 Engine Bay Door Former	688	0.9																		688	0.9
ECP 311/Main Landing Gear (MLG) Planing Link	10	*																		10	*
ECP 319/MLG Trunnion Upgrade	1,405																			1405	
ECP 320/Y488 Bulkhead	473	1.2																		473	1.2
ECP 353/Wing Fatigue Repair	98	0.7																		98	0.7
ECP 355/MLG Shoulder Belt	350	0.2																		350	0.2
ECP 364/ASPJ System Improvement	225																			225	
ECP 365/Y470 Bulkhead Improvement	982	1.0																		982	1.0
ECP 367/#1 Fuel Cell Floor	557	0.3																		557	0.3
ECP 375/MLG Retract Actuator	1,323	5.7																		1323	5.7
ECP 391/Fretting on Former's & Spindles	582	0.3																		582	0.3
ECP 402/Fuselage Skin, Y518 to Y533	638	*																		638	*
ECP 402R1/Fuselage Skin, Y518 to Y534	720	2.1																		720	2.1
ECP 417/Inlet Duct Skin at Y453	575	2.0																		575	2.0
ECP 428/Y470.5 Bulkhead MLG Trunnion	2	0.1																		2	0.1
ECP 440/Speed Brake Trough	591	1.0																		591	1.0
ECP 488/SUJ-63 Wing Pylon Door Panel	1,351	0.8																		1351	0.8
ECP 492/Y470.5 Bulkhead Fatigue Change	688	1.4																		688	1.4
ECP 498/Fuselage Skin at Y453	696	0.7																		696	0.7
ECP 501/Nacelle Skin Fatigue Improvements	663	3.7																		663	3.7
ECP 506/LAU-115 Sparrow Mod	935																			935	
ECP 536/ST-16 Failures	95	11.1	25	3.3	25	2.5	25	3.5	11	1.4	25	3.6								206	25.4
ECP 544/Improvement of Inner Wing SPAR	29	0.3																		29	0.3
ECP 548/Fuel Barrier Web	750	1.4																		750	1.4
ECP 550/Wing Drag Longeron	119	0.2																		119	0.2
ECP 561/Y326.5 Plate Nut	532	0.2																		532	0.2
ECP 562/Lower Center Keel Fire Hazard	798	0.4																		798	0.4
ECP 574/Trailing Edge Flaps	1,026	26.8																		1026	26.8
ECP 574/Aileron	707	18.2																		707	18.2
ECP 598 Servocylinder Test Station	9	1.4																		9	1.4
NI879/Hydraulic Temp Guages	150	0.2																		150	0.2
NI 742/Environment Control System Wiring	150	0.2																		150	0.2
NI 796/Wing Fuel Dams	515	0.8																		515	0.8

NI 824/MLG Trunnion Assembly	425	13.4																	425	13.4
NI 827/Heat Exchanger	37	0.4																	37	0.4
NI 830/Night Vision Display System (NVDS)	14	0.3																	14	0.3
NI 839/Trailing Edge Flap	1,150	9.4																	1150	9.4
ECP XXX - ANTI G VALVE	800	1.0																	800	1.0
ECP 973 Fuel Cell Floor Crack	200	2.0																	200	2.0
ECP 592 - Side Fuselage Crack																				
ECP XXX5 - Wing SPAR Crack																				
ECP NI 931 - Forward Lower Keel Modification																				
ECP 952 - MLG Axle	688	17.1																	688	17.1
ECP974NI - MLG Y488 Bulkhead			80	0.1	80	0.1	80	0.7	80	0.7	80	0.7	80	0.7	80	0.8	87	0.8	647	4.7
ECP 590 - OBOGS SSOM							80	0.3	80	0.3	80	0.3	80	0.3	250	1.0			570	2.2
ECP 608 - Crease Longeron																				
ECP NI-1013-05 Heat Derrent	630	8.8																	630	8.8
ECP1057NI - MLG Planning Mechanism Improvements	62	1.0	561	9.0	80	*													703	10.1
ECP XXX13 - Bay 3 Shelf Modification																				
ECP XXX14 - Bay 4 Shelf Modification																				
ECP 6217 - Cockpit Pressurization Warning System (CPWS)	604	8.0																	604	8.0
ECP XXX16 - Vertical Tail																				
ECP XXX17 - Canopy/Windscreen					150	0.4													150	0.4
ECP XXX18 NLG/MLG Fatigue Improvement					80	0.1													80	0.1
ECP 609 Inner Wing Conversions/Modification	3	*	6	1.7	20	6.2	38	0.1	24	5.9	15	4.5	4	1.2	5	1.6			115	21.3
ECP JAX F-18-001 NFDS MODS, C&D Conversion	12	4.0																	12	4.0
ECP 0147 Repeatable Release Holdback Bar	285	1.5																	285	1.5
ECP9384 MB Redesign of Backrest Operation Plunger (Safety)	443	*																	443	*
ECP1022NI Inner Wing Fatigue improvement			100	0.9	100	0.9	100	1.0	85	0.8	100	1.0	100	1.0	49	0.5			634	6.2
ECP1034 Trailing Edge flap/Aileron Attach log Bushing					80	0.3	100	0.1	100	0.1	100	0.1	100	0.1	100	0.1	47	*	627	0.6
ECP1054NI LEF Stop Module & Torque Limiter Improvement	623	1.2			250	8.7													873	9.9
ECPXXX23 AFT Fuselage Structure Failure					10	0.2			40	0.8	40	0.9	40	0.9	50	1.1			180	3.9
ECPXXX24 NACES Improved Upper Catapult Sleeve, Safety ECP																				
ECP1036 NI ECS/OBOGS Fitting Upgrade, Safety ECP	331	*																	331	*
ECP 1071 NI F/A-18 A-D MLG Planning Mechanism Assembly Perf Upgrade							450	4.0											450	4.0
ECP 6321R1 F/A-18 A-D MLG Doors Hing Pins Hdw Conv			550	0.2															550	0.2
ECP MB9425 Modified NACES Backplate																				
ECP MB9431 NACES Bracket Interim Support Kits	46	0.1																	46	0.1
ECP XXX25 F/A-18 B/D Canopy Sill Longeron Crack							80	0.8	60	0.6									140	1.5
ECP XXX26 F/A-18 A-D Structural Stress Corrosion Cracking Issues																				
ECP XXX27 F/A-18 A-D Subsystems Retrofit Upgrades Issues																				
ECP XXX28 F/A-18 A-D ECS Subsystems Upgrade Issues																				
ECP XXX29 F/A-18 A-D Fuel Related Updgrade Issues																				
Installation Kits N/R		51.7		11.4				1.6						10.0		7.5				82.3
Installation Equipment		2.3																		2.3
Installation Equipment N/R		0.1																		0.1
Engineering Change Orders																				
Data		13.5		1.1				*												14.6
Training Equipment																				
Support Equipment		1.5																		1.5
ILS		220.1		48.1		19.3		24.8		24.7		25.0		25.2		25.6		26.3		439.2
Other Support																				
Interim Contractor Support																				
Installation Cost	29,094	225.5	187	9.4	701	18.1	473	21.8	480	17.7	482	18.1	506	22.1	581	24.4	470	1.9	32,974	358.9
<b>Total Procurement</b>		<b>683.1</b>		<b>85.3</b>		<b>56.7</b>		<b>58.6</b>		<b>53.1</b>		<b>54.2</b>		<b>61.6</b>		<b>62.6</b>		<b>29.1</b>		<b>1,144.3</b>

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 608 (Crease Longeron) includes "Installation Costs" only.
4. ECP 595 (Flight Control Computer) includes Non-Recurring Costs only.

Exhibit P-3a

Individual Modification

MODIFICATION TITLE: F/A-18 AIRCRAFT STRUCTURAL LIFE MANAGEMENT PLAN (SLMP) (OSIP 11-99) CBR+

MODELS OF SYSTEMS AFFECTED: F/A-18A/B/C/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 FY 2023. 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 extend 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 can extend total landings. 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/B/C/Ds. ECP 904 Part 1 is the basic center barrel kit. ECP 904 Part 2 is required to extend Wing Root Fatigue Life Expenditure (FLE) and is not required for all aircraft. ECP 904 Part 3 is required to extend CAT & TRAPs and does not have to be installed concurrently with Part 1 and 2. Part 4 is to extend flight hours associated with flight control surfaces, wings, vertical tails and the forward/aft fuselage and does not have to be installed concurrently with Part 1, 2, or 3.

**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. McDonnell Douglas Corporation (MDC) and Northrop Grumman Corporation (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. The FRC North Island developed ECP 904NI (CBR+) which was approved on 27 April 2000, ECP 904 NI supersedes ECP 536. Validation started October 2000 and was completed in August 2001. Verification started August 2001 and was completed June 2002. ECP 536 moved from OSIP 11-99 to OSIP 11-84 in FY2002.

**FINANCIAL PLAN: (TOA, \$ in Millions)**

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total			
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$		
RDT&E		28.9																			28.9	
PROCUREMENT																						
Installation Kits																						
ECP 904 Part 1	220	195.8	30	32.5	29	30.9	33	38.3	34	40.5	40	47.9	35	43.7							421	429.6
ECP 904 Part 2	106	57.6	10	0.2	10	0.2	10	0.2	10	0.2	10	0.2	10	0.2	3	0.1					169	58.8
ECP 904 Part 3			10	0.9	10	0.3	10	0.3	10	0.3	10	0.3	10	0.3	10	0.3					70	2.7
ECP 904 Part 4			10	4.4	12	5.2	21	9.2	10	4.4	70	31.8	40	18.6	100	46.4	150	53.1			413	173.0
Installation Kits N/R		21.7																				21.7
Installation Equipment	122	7.1	32	4.9	36	5.9	36	5.9	40	6.6	40	6.6	40	6.6	40	6.6	35	5.8			421	56.1
Installation Equipment N/R	15	1.4				0.9		1.5				4.3		1.3							15	9.3
Engineering Change Orders																						
Data		17.7		12.4		10.9		4.9		4.1		4.2		3.9		3.8				7.5		69.4
Training Equipment																						
Support Equipment																						
ILS		42.0		10.4		10.1		9.4		9.1		13.2		14.2		14.6				29.0		151.9
Other Support																						
Interim Contractor Support																						
Installation Cost	123	145.4	32	35.9	46	48.7	48	47.8	61	56.9	50	57.4	110	71.2	80	66.4	285	104.1			835	633.7
<b>Total Procurement</b>		<b>488.8</b>		<b>101.5</b>		<b>113.1</b>		<b>117.5</b>		<b>122.1</b>		<b>165.9</b>		<b>160.0</b>		<b>138.108</b>		<b>199.4</b>				<b>1,606.2</b>

**Notes:**

1. Totals may not add due to rounding.
2. "Installation Kit" Pricing is Quantity Sensitive. FMS procurements in some years affects unit price.
3. Asterisk indicates amount less than \$51K.
4. FY10 began SLEP (ECP 904 Part 4) Installs in addition to CBR+ Installs.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: F/A-18A/B/C/D MODIFICATION TITLE: F/A-18 SERVICE LIFE MANAGEMENT PROGRAM (SLMP) (OSIP 11-99) CBR+ (ECP 904 P1)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: CONTRACTOR PROVIDING 1 WARRANTY KIT

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 26 Months

CONTRACT DATES: FY 2009: Jan-09 FY 2010: Mar-10 FY 2011: Jan-11

DELIVERY DATE: FY 2009: Apr-11 FY 2010: Jun-12 FY 2011: Apr-13

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2008 & PY (221) kits	123	145.4	32	35.9	36	46.6	6	7.6	11	14.5	7	9.7	6	8.5					221	268.0
FY 2009 (30) kits							30	37.8											30	37.8
FY 2010 (29) kits									29	38.1									29	38.1
FY 2011 (33) kits											33	45.6							33	45.6
FY 2012 (34) kits													34	48.1					34	48.1
FY 2013 (40) kits															40	57.8			40	57.8
FY 2014 (35) kits																	35	50.6	35	50.6
FY 2015 ( ) kits																				
To Complete ( ) kits																				
<b>TOTAL</b>	123	145.4	32	35.9	36	46.6	36	45.3	40	52.6	40	55.3	40	56.6	40	57.8	35	50.6	422	546.0

Installation Schedule - CBR+ (ECP 904 P1)

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	123	8	8	8	8	9	9	9	9	9	9	9	9	10	10	10	10	10	10	10	10
Out	123	8	8	8	8	9	9	9	9	9	9	9	9	10	10	10	10	10	10	10	10

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In	10	10	10	10	10	10	10	10	35	422
Out	10	10	10	10	10	10	10	10	35	422

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: F/A-18A/B/C/D MODIFICATION TITLE: F/A-18 SERVICE LIFE MANAGEMENT PROGRAM (SLMP) (OSIP 11-99) SLEP (ECP 904 P4)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: CONTRACTOR PROVIDING 1 WARRANTY KIT

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 14 Months

CONTRACT DATES: FY 2009: Jan-09 FY 2010: Mar-10 FY 2011: Jan-11

DELIVERY DATE: FY 2009: Apr-10 FY 2010: Jun-11 FY 2011: Apr-12

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL			
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$		
FY 2008 & PY ( ) kits																						
FY 2009 (10) kits					10	2.1															10	2.1
FY 2010 (12) kits							12	2.5													12	2.5
FY 2011 (21) kits									21	4.3											21	4.3
FY 2012 (10) kits										10	2.1										10	2.1
FY 2013 (70) kits												70	14.7								70	14.7
FY 2014 (40) kits														40	8.6						40	8.6
FY 2015 (100) kits																100	21.4				100	21.4
To Complete (150) kits																	150	32.1			150	32.1
<b>TOTAL</b>					10	2.1	12	2.5	21	4.3	10	2.1	70	14.7	40	8.6	250	53.5		413	87.6	

1. FY10 began the SLEP (ECP 904 P4) Installs - which can be installed concurrently with CBR+ at either of the two FRCs (Jax/NI), or independently at one of the 4 Master Jet Bases for A/C that had CBR+ installed previously.

Installation Schedule - SLEP (ECP 904 P4)

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	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	3	3	5	6	5	5	2	3	3	2
Out					2	3	3	2	3	3	3	3	5	6	5	5	2	3	3	2

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In	17	18	18	17	10	10	10	10	250	413
Out	17	18	18	17	10	10	10	10	250	413

Exhibit P-3a

Individual Modification

MODIFICATION TITLE: MULTI-FUNCTIONAL INFORMATION DISTRIBUTION SYSTEM (MIDS) (12-99)

MODELS OF SYSTEMS AFFECTED: F/A-18C/D/E/F and EA-18G TYPE MODIFICATION: CAPABILITY IMPROVEMENT

DESCRIPTION/JUSTIFICATION:

The system is a Tactical Data Link to provide a secure communications and a navigation system. Multifunctional Information Distribution System Low Volume Terminal (MIDS-LVT) is a Pre-planned Product Improvement (P3I) to the Joint Tactical Information System (JTIDS) and is being installed in USN/USMC F/A-18C/D/E/F and EA-18G aircraft, since the aircraft cannot 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 is 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. The MIDS Joint Tactical Radio System (MIDS JTRS) is an ECP upgrade to the MIDS-LVT developed under (ORD#642-61-04). MIDS JTRS offers the functionality of Link 16, Tactical Air Navigation (TACAN), and digital voice in a Software-Controlled Architecture (SCA) JTRS-compliant format, and provides the option of future expandability to host the Advanced Tactical Data Link (ATDL). MIDS JTRS will be retrofit in Lots 26-31 F/A-18E/F and EA-18G aircraft. This OSIP also includes funding for the purchase of MIDS upgrade kits for Cryptographic Modernization (CM) and Frequency Remapping (FR) capability.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

This Operational Safety Improvement Program (OSIP) was originally planned for incorporation of MIDS into F/A-18C/D (Lots 12-21) and F/A-18E/F (Lots 22-31), but is now applicable to all F/A-18C/D/E/F and EA-18G aircraft. 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. Operational Evaluation 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. Integration testing of MIDS JTRS capabilities began in FY2007. FY2007 was a MIDS JTRS LRIP buy per the approved acquisition strategy and will enable Initial Operational Capability in FY2009.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E		0.0																			0.0
PROCUREMENT																					
Installation Kits																					
Lot 12 through 21 Kits	397	57.4																		397	57.4
Lot 26 through 31 Kits (MIDS-JTRS)	24	0.2	24	0.2																48	0.5
Installation Kits N/R																					
Installation Equipment																					
Avionics Upgrade	397	59.3																		397	59.3
MIDS LVT	415	117.6			11	2.0														426	119.6
MIDS JTRS	24	14.9	24	10.6																48	25.5
Crypto														110	14.9					110	14.9
Installation Equipment N/R		37.2																			37.2
Engineering Change Orders		1.3		0.8		1.9															3.9
Data		2.0																			2.0
Training Equipment																					
Support Equipment		7.2																			7.2
ILS		10.2		1.4		1.3		*			0.1		0.4		0.3						13.6
Other Support		20.9		5.0		2.2															28.1
Interim Contractor Support																					
Installation Cost	288	29.9	40	4.0	29	2.9														357	36.8
Total Procurement		358.1		21.9		10.3		*			0.1		0.4		15.1						406.0

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. Lots 26 through 31 Kits (MIDS-JTRS) are an "O" Level Installation.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: F/A-18C/D/E/F and EA-18G 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 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (357) kits	288	29.9	40	4.0	29	2.9														357	36.8
FY 2009 ( ) kits																					
FY 2010 ( ) kits																					
FY 2011 ( ) kits																					
FY 2012 ( ) kits																					
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete ( ) kits																					
<b>TOTAL</b>	<b>288</b>	<b>29.9</b>	<b>40</b>	<b>4.0</b>	<b>29</b>	<b>2.9</b>														<b>357</b>	<b>36.8</b>

\*Note: DERF funded "A" kit procurement.

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In	288	10	10	10	10	7	7	7	8													
Out	288	10	10	10	10	7	7	7	8													

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										357
Out										357

Exhibit P-3a Individual Modification

MODIFICATION TITLE: USMC F/A-18 UPGRADE ECP-583 (OSIP 21-00)

MODELS OF SYSTEMS AFFECTED: F/A-18A/B/C/D TYPE MODIFICATION: AVIONICS UPGRADE

DESCRIPTION/JUSTIFICATION:

This Operational Safety Improvement Program (OSIP) upgrades USMC F/A-18A/B/C/Ds avionics including both hardware and software capabilities. This requirement is critical to meet the Marine Corps requirements for the Tactical Aircraft (TACAIR) Integration Plan. The Avionics Upgrade includes avionics subsystems already incorporated or being incorporated into USMC and/or Foreign Military Sales (FMS) F/A-18 aircraft. The Basic Engineering Change Proposal (ECP) 583 incorporates the following subsystems: AN/ARC-210(V) with HAVEQUICK II and SINGARS; 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 modification, launchers, weapons pylons and control stick); Digital Display Indicator (DDI) Upgrade; Mission Data Loader (AN/ASQ-215); Targeting Forward-Looking Infrared (FLIR) provisions (AAS-38B). ECP 583R1 adds a digital wingtip modification, allowing use of the AIM-9X air-to-air missile. ECP 583R2 adds the following capabilities: Multi-functional Information Distribution System (MIDS LVT); Co Displays; Joint Helmet Mounted Cueing System (JHMCS); ALE-47; Tactical Aircraft Moving Map Capability (TAMMAC); and Auxiliary Memory Unit (AMU). ECP 583 R3 was cancelled. ECP583R4 will incorporate the United States Navy Aircrew Common Ejection Seat (NACES) for utilization with the JHMCS system. This OSIP also provided limited integration of the LITENING Enhanced Range Forward Looking Infrared (FLIR) on 24 USMC F/A-18Ds. This allowed the USMC 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:

The number of aircraft to be retrofitted in the program of record has changed; the USMC has deferred retrofitting some early lot F/A-18C/Ds vice only F/A-18A/Bs due to greater remaining life on those aircraft. ECP 583 was approved 25 March 1999. ECP 583R1 was approved in August 2001. ECP 583R2 was approved in 2004. ECP 583R3 was cancelled and ECP 583R4 was approved in 2006. A New Start notification was sent to Congress in FY2003 to initiate the Litening integration and procurement of the FY2004 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 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
ECP 583	27	7.5																	27	7.5	
ECP 583R1	82	0.3																	82	0.3	
ECP 583R2	13	8.2																	13	8.2	
ECP 583R4	42	1.3	9	0.3															51	1.5	
Litening	24	0.9																	24	0.9	
Installation Kits N/R		13.9						3.0												16.9	
Installation Equipment	999	159.1																	999	159.1	
ECP 583R2	150	28.7	9	6.4	5	9.8	6	8.2	3	5.6	10	20.7	14	31.4				197	110.9		
ECP 583R4	45	9.5	9	2.5	5	1.8	6	1.5	3	0.6	10	2.2	14	4.2				92	22.3		
Installation Equipment N/R																					
Engineering Change Orders																					
Data		1.7																		1.7	
Training		0.7																		0.7	
Support Equipment		1.5																		1.5	
ILS		21.1		0.7		0.8		2.4		0.3		1.3		2.0		2.2		2.4		33.2	
Other Support (Testing)		4.7																		4.7	
Interim Contractor Support																					
Installation Cost	66	26.0	17	5.5	12	5.2	9	3.2	5	4.0	6	1.2	3	4.1	10	9.7	14	9.2	142	68.1	
Total Procurement		285.3		15.4		17.5		18.2		10.6		25.4		41.7		11.9		11.6		437.6	

Notes:

1. Totals may not add due to rounding.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: F/A-18A/B/C/D MODIFICATION TITLE: USMC F/A-18 UPGRADE ECP-583 (OSIP 21-00)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: (ECP 583) ONE KIT INSTALLED BY CONTRACTOR FOR VAL/VER, OTHER INSTALLS FIELD TEAMS

ADMINISTRATIVE LEADTIME: Various Months PRODUCTION LEADTIME: Various Months

CONTRACT DATES: FY 2009: Jan-09 FY 2010: Jan-10 FY 2011: Jan-11

DELIVERY DATE: FY 2009: Jun-10 FY 2010: Jul-11 FY 2011: Jul-12

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2008 & PY (95) kits	66	26.0	17	5.5	12	5.2													95	36.8
FY 2009 (9) kits							9	3.2											9	3.2
FY 2010 (5) kits									5	4.0									5	4.0
FY 2011 (6) kits											6	1.2							6	1.2
FY 2012 (3) kits													3	4.1					3	4.1
FY 2013 (10) kits															10	9.7			10	9.7
FY 2014 (14) kits																	14	9.2	14	9.2
FY 2015 ( ) kits																				
To Complete ( ) kits																				
<b>TOTAL</b>	<b>66</b>	<b>26.0</b>	<b>17</b>	<b>5.5</b>	<b>12</b>	<b>5.2</b>	<b>9</b>	<b>3.2</b>	<b>5</b>	<b>4.0</b>	<b>6</b>	<b>1.2</b>	<b>3</b>	<b>4.1</b>	<b>10</b>	<b>9.7</b>	<b>14</b>	<b>9.2</b>	<b>142</b>	<b>68.1</b>

Notes:

Installation Schedule

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In	66	4	4	5	4	3	3	3	3	1	3	3	2	1	2	1	1	1	2	2	1
Out	66	4	4	5	4	3	3	3	3	1	3	3	2	1	2	1	1	1	2	2	1

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In		1	1	1	2	3	3	2	14	142
Out		1	1	1	2	3	3	2	14	142

Exhibit P-3a Individual Modification

MODIFICATION TITLE: F/A-18 JOINT HELMET-MOUNTED CUEING SYSTEM (JHMCS) (OSIP 24-00)

MODELS OF SYSTEMS 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, upload reticle, magnetic helmet tracker hardware and software, interfaces to the aircraft Navy Aircrew Common Ejection Seat (NACES) ejection seat, computers, weapons and sensor hardware, with software to integrate the JHMCS functions with other onboard systems. The JHMCS communicates with airborne sensors Forward Looking Infrared (FLIR, Radar) through the aircraft avionics MUX Bus. It communicates with weapons through the armament MUX Bus via the Stores Management System. The Navy Aircrew Common Ejection Seat (NACES) ejection seat is required for the safe operation of the system. This system will provide aircraft equipped with the Joint Helmet Mounted Cueing System (JHMCS) the ability to cue and display weapons and sensors at night through the initial fielding of a narrow field of view Night Vision Device that integrates the JHMCS cueing and display symbology. The capability will be upgraded to a wide field of view system when available. The system will be compatible with the current JHMCS helmet and will use the power and data provided by the JHMCS Universal Connector to the helmet. The System includes a high resolution image intensifier assembly, a camera to record the pilot's visual scene and display assembly that combines the JHMCS symbology and the scene viewed through the Night Vision Device(NVD). It also has an objective lens with a leaky green filter that enables the fixed wing pilot to view the head-up display while wearing the system. The system is fully adjustable by the operator and is detachable from the helmet.

"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 Equipment" is procured a year prior to the "Installation Kit" procurement. However, due to a year difference in production lead-times 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 war fighting 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 Evaluation (OPEVAL) was completed in April 2002. F/A-18E/F retrofit kit procurement began in FY 2004 and 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. AFT Seat development completed in FY 2006. The first F/A-18C/D JHMCS retrofit kits were procured in FY 2005 and installed in FY 2006.

**FINANCIAL PLAN: (TOA, \$ in Millions)**

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total			
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$		
RDT&E		79.0																			79.0	
PROCUREMENT																						
Installation Kits																						
C/D	184	17.8	40	3.1	48	5.4	22	2.0	49	4.0	25	2.1									368	34.4
E/F	74	5.8	22	2.8	15	2.1	44	5.8	23	4.2											178	20.6
Canopy A Kits (AYC-1321)	317	2.9	47	0.1	56	0.2	46	0.4	63	0.3	28	0.1									557	4.0
Ejection Seats A Kits (NACES)									17	0.0	25	0.1									42	0.1
Ejection Seat A Kits (ACC-695)	236	1.3	52	0.2	86	0.4	32	0.2	56	0.4	6	*									468	2.5
Installation Kits N/R		16.9		2.0		2.4		2.1		2.0		1.9										27.4
Installation Equipment																						
C/D	386	46.6	132	8.4	183	12.6	24	4.9	58	13.6	50	13.9									833	100.0
E/F	164	11.4	68	4.9	62	4.1	44	8.2	20	4.6	15	1.5									373	34.6
Installation Equipment N/R		1.0																				1.0
Engineering Change Orders																						
ECO KIT																						
ECO EQUIPMENT																						
Data		5.9						0.1		0.7		*										6.8
Training Equipment		0.5		0.5		0.5																1.5
Support Equipment	142	9.1	34	4.1	15	1.3	5	*	6	*	8	*									210	14.6
ILS		17.5		3.4		4.3		9.0		9.5		13.2		7.6		12.3						76.8
Other Support																						
Interim Contractor Support																						
Installation Cost	133	11.4	78	7.0	47	4.8	62	5.7	63	7.2	66	10.1	72	7.2	25	2.7					546	56.0
Total Procurement		148.2		36.5		38.0		38.3		46.4		43.0		14.8		15.0						380.2

Notes:

- Totals may not add due to rounding.
- Asterisk indicates amount less than \$50K.
- "Installation Equipment" is procured one year prior to "Installation Kits" due to a year greater production leadtime.

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:

METHOD OF IMPLEMENTATION: FIELD MOD TEAMS

ADMINISTRATIVE LEADTIME: 4 Months PRODUCTION LEADTIME: 21 Months

CONTRACT DATES: FY 2009: Feb-09 FY 2010: Feb-10 FY 2011: Feb-11

DELIVERY DATE: FY 2009: Nov-10 FY 2010: Nov-11 FY 2011: Nov-12

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL			
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$		
FY 2008 & PY (258) kits	133	11.4	78	7.0	47	4.8														258	23.2	
FY 2009 (62) kits							62	5.7													62	5.7
FY 2010 (63) kits									63	7.2											63	7.2
FY 2011 (66) kits											66	10.1									66	10.1
FY 2012 (72) kits													72	7.2							72	7.2
FY 2013 (25) kits															25	2.7					25	2.7
FY 2014 ( ) kits																						
FY 2015 ( ) kits																						
To Complete ( ) kits																						
<b>TOTAL</b>	<b>133</b>	<b>11.4</b>	<b>78</b>	<b>7.0</b>	<b>47</b>	<b>4.8</b>	<b>62</b>	<b>5.7</b>	<b>63</b>	<b>7.2</b>	<b>66</b>	<b>10.1</b>	<b>72</b>	<b>7.2</b>	<b>25</b>	<b>2.7</b>				<b>546</b>	<b>56.0</b>	

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	133	20	20	20	18	12	12	12	11	16	16	16	14	16	16	16	15	17	17	17	15
Out	133	20	20	20	18	12	12	12	11	16	16	16	14	16	16	16	15	17	17	17	15

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In	18	18	18	18	7	7	7	4		546
Out	18	18	18	18	7	7	7	4		546

Exhibit P-3a

Individual Modification

MODIFICATION TITLE: ADVANCED TARGETING FORWARD LOOKING INFRARED (ATFLIR) (OSIP 12-01)

MODELS OF SYSTEMS AFFECTED: F/A-18A+/C/D/E/F TYPE MODIFICATION: CAPABILITY IMPROVEMENTS

DESCRIPTION/JUSTIFICATION:

The Advanced Targeting Forward Looking Infrared (ATFLIR) (ORD# 605-78-02) will provide the F/A-18A+/C/D/E/F with an enhanced capability to detect, track and attack air and ground targets. Laser guided and global positioning system (GPS) standoff weapon systems with greater standoff ranges require improved performance over second generation targeting pods. The ATFLIR currently utilizes the third generation of FLIR technology and provides a quantum leap in operational effectiveness to fully support the standoff precision strike mission. This OSIP is used to perform efforts to address parts obsolescence and to examine and incorporate potential ATFLIR-related capability upgrades associated with Network Centric Operations, interoperability requirements, and upgraded targeting capability requirements.

FY 2011 Overseas Contingency Operations (OCO) request procures ATFLIR-ROVER Data Link A and P Kits, installation labor, and associated ILS for 4 Air Wings or approximately 176 F/A-18 aircraft. This eye in the sky capability saves lives by enabling convoys to avoid IEDs and ambushes, and reduces fratricide by increasing situational awareness for airborne and ground forces. It shortens kill chain timelines by speeding up target identification and reducing communications.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

ATFLIR development began in FY1997. OPEVAL testing was completed in June 2003 and the Operational Evaluation (OPEVAL) report was issued 4 September 2003. Full Rate Production approval was given in October 2003. Navigational forward looking Infra-Rec (NAVFLIR) capability was removed from the system in December 2003.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E		275.6																			275.6
PROCUREMENT																					
Installation Kits	303	4.8			290	5.2															593 9.9
FY2011 OCO Installation Kits							176	2.1													176 2.1
Installation Kits N/R						3.1															3.1
Installation Equipment(C/D)	293	415.2			94	3.2	29	12.8													416 431.1
FY2011 OCO Installation Equipment(C/D)							72	2.8													72 2.8
Installation Equipment(E/F)					93	3.1															93 3.1
FY2011 OCO Installation Equipment(E/F)							72	2.8													72 2.8
Installation Equipment N/R		67.8		6.5																	74.3
Engineering Change Orders																					
Software Upgrades		2.2		0.2		0.3		0.3													3.0
Pod Data Link (Ku)		3.5		6.6																	10.1
ATFLIR ECPs		7.7		1.9		2.2															11.8
I2P ECP		1.4																			1.4
IR Marker ECP	54	47.0	26	10.1	26	10.5															106 67.6
Data		6.2		0.9		0.1		0.1													7.3
Training		3.4		0.1		*		*													3.5
Support Equipment		63.8		5.5		0.7		0.5													70.4
ILS		55.0		7.0		7.0		6.4													75.4
Spares																					
Other Support		3.1		1.0		0.9		0.8													5.9
FY2011 OCO Other Support								0.5													0.5
Installation Cost																					
Total Procurement		681.1		39.8		36.3		29.2													786.3

Notes:

- Totals may not add due to rounding.
- Asterisk indicates amount less than \$50K.
- 8 "A Kits" used for Validation/Verification will not be installed on aircraft.
- The "Installation Kit" is required to allow Advanced NAVFLIR functionality on cockpit displays. This ECP is required for F/A-18A+ and all F/A-18C/Ds.

Exhibit P-3a Individual Modification

MODIFICATION TITLE: F/A-18C/D/E/F and EA-18G TRAINING SYSTEM (OSIP 006-02)

MODELS OF SYSTEMS AFFECTED: F/A-18C/D/E/F and EA-18G TYPE MODIFICATION: TRAINERS UPGRADE

DESCRIPTION/JUSTIFICATION:  
 F/A-18C/D/E/F and EA-18G training funds will be used to meet current Fleet Readiness Squadron (FRS) and Fleet Training and Readiness (T&R) requirements by purchasing new components and software to prevent obsolescence of the various trainers as F 18C/D/E/F and EA-18G 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/E/F and EA-18G trainers into High Level Architecture/Navy Aviation Simulator Master Plan (HLA/NASMP) compliance and incorporate the Next Generation Threat System (NGTS).

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	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		87.1		6.2		6.9		13.1		13.5		13.8		28.5		25.4		154.5		349.0	
Support Equipment																					
ILS																					
Spares																					
Other Support - Testing																					
Installation Cost																					
Total Procurement		87.1		6.2		6.9		13.1		13.5		13.8		28.5		25.4		154.5		349.0	

Exhibit P-3a MODIFICATION TITLE:	E/F & EA-18G CORRECTION OF OPERATIONAL DISCREPANCIES (OSIP 14-03)
MODELS OF SYSTEM AFFECTED: DESCRIPTION/JUSTIFICATION:	F/A-18 E/F & EA-18G
<p>Corrections to discrepancies discovered 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. Corrections to the following items/conditions are required to meet the F/A-18 E/F EA-18G transition plan and achieve planned life limits. This OSIP will correct operational discrepancies discovered during testing and evaluations and during fleet operations and modify, improve, retrofit, and restore aircraft structural safety and reliability to designed full life limits.</p>	
<p>ECS Exhaust Overtemp Final Fix/Bard Stacks, <a href="#">(ECP-6106R1)</a> Aft ECS Cooling Fan, <a href="#">(ECP-6114)</a> FCC Processor Upgrade, <a href="#">(ECP-6002)</a> MLG Door Bushing Migration, <a href="#">(ECP-6104)</a> AFT Fuselage Outbd Former Fwd Flange @ Y645, <a href="#">(ECP-6088)</a> MLG Trunnion Bearing Loose Retention Nut, <a href="#">(ECP-6194)</a> Long Stick Position, <a href="#">(ECP-XX2)</a> SKIN 12 Stiffener Back-up Structure, <a href="#">(ECP-6171)</a> AFT Fan Shutoff Valve, <a href="#">(ECP-6199)</a> AN/APN-194 (RADAR Altimeter) Mounting Tray Modification Step 2, <a href="#">(ECP-6313)</a> Leading Edge Extension (LEX) Lower Surface/Structure Cracks Redesign, <a href="#">(ECP-6193R1/R2)</a> MLG Outboard Tire Door Clevis, <a href="#">(ECP-6145)</a> FT50 Y436 Inlet Former, <a href="#">(ECP-6188)</a> Keel Beam Lower Cap Cracks, <a href="#">(ECP-6203)</a> FT50 Teardown Bulkhead Cracking, <a href="#">(ECP-XX12)</a> FT50 Fuel Barrier Web at Y510, <a href="#">(ECP-6326)</a> FT50 18K Fuselage Outboard Former at Y645 Failure <a href="#">(ECP-6229)</a> FT-50 Failure of Upper Wing Skin Splice Plate, <a href="#">(ECP-6183R1)</a> DOOR 49 Replacement, <a href="#">(ECP-6098C1)</a> Horizontal Actuator Cover-Door 71, <a href="#">(ECP-6068)</a> MLG R/H Upper Planing Link Attach Fitting Failure, <a href="#">(ECP-6196C1)</a> LEX Vent Mechanism Support Assembly Rod End Clevis Failure, <a href="#">(ECP-6208)</a> Fuel Wash Filter Enhancement, <a href="#">(ECP-6216)</a> ECS Ejector Cracks, <a href="#">(ECP-6255)</a> MLG DOOR HINGE PINS STANDARD HARDWARE CONVERSION <a href="#">(ECP-6321)</a> Cockpit Pressure Warning System (CPWS), <a href="#">(ECP-6217)</a> Safety ECP MLG Strut Door Departures, <a href="#">(ECP-6235)</a></p>	<p>Modifies current exhaust ducts in order to reduce skin and structural temperatures caused by the ECS exhaust plume Strengthens ECS cooling fan to prevent and contain fan failures Replace existing FCC processor with upgraded higher order processors Improved bushing retention for MLG Door hinge attach points Repair former by adding a doubler to bring it back to original specification Replacing bearing retention nut with an improved retention nut Incorporation of improved retention mechanism in position sensor Strengthen the Centerline Structure to meet 2000 catapult requirement Modify the Aft Fan with an Improved Shut-Off Valve Drill hole in door to allow escape of moisture accumulation in order to prevent corrosion of the antenna Modifies LEX structure to prevent cracks induced from aerodynamic loads Redesign clevis to eliminate cracking imparted during gear cycling Introduces strengthened design to prevent cracking Redesign the existing keel beam lower cap at the arresting hook uplatch mechanism. Increase the thickness of the lower Modifies bulkhead to prevent cracking discovered during FT50 testing Retrofit redesign of the Fuel Barrier Web at Y510 resulting from cracks discovered during FT50 fatigue test article This ECP describes the effort to redesign the Fuselage Outboard Former Y645 resulting from cracks that were discovered Redesigned Upper Wing Skin Splice Plate to address failures observed during fatigue testing Replace Door 49 for holes found elongated beyond spec. Improved fasteners to prevent deformation introduced by flight loads Redesign existing planing link attach fittings Redesign and strengthen door actuator Upgrade the Fuel Wash Filter to address a design deficiency which allows bypass of FO to the LDFS. Modify ECS ejector to prevent cracks from being induced This modification incorporates a re-designed hinge pin. Provides a warning system to identify a possible insidious cabin pressure loss that could result in crew hypoxia L/H MLG Strut Doors departed in flight causing damage to adjacent doors and structure Forward hinges on failed doors show evidence of fatigue failures Unanticipated loads environment due to stores carriage Centerline 480 gal fuel tank.</p>
<p>HOL Follow-On Upgrades Lot 25 &amp; Up, <a href="#">(ECP-XX21)</a> 18E Follow-On Upgrades Lot 24 &amp; Below, <a href="#">(ECP-XX22)</a> MLG Proximity Switches &amp; Sidebrace Down Lock Mechanism, <a href="#">(ECP-6076)</a> Fuel System Ground Pressurization Tube Water Entrapment, <a href="#">(ECP-6190)</a> Wing Modification for Transonic Flying Qualities Improvement, <a href="#">(ECP-6191)</a> Radar Bay Vent Valve Fail - MSP 862, <a href="#">(ECP-6198)</a></p>	<p>Mission Computer BIT performance upgrades &amp; enhancements for aircraft with Higher Order Language (HOL) Mission Computer BIT performance upgrades &amp; enhancements for aircraft without Higher Order Language (HOL) Modify down lock actuator assembly, jury link; replace lock plate &amp; proximity switches Change manual drain valve to automatic drain valve to ensure that no water is trapped in the fuel system. Modify the wing and flight control surfaces to improve the flying qualities of the aircraft when flying above the speed of 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.</p>
<p>Y679 Former Boot Strap Interface Fillet Seal Missing, <a href="#">(ECP-6206)</a> ECS Cooling Duct Grounding Strap, <a href="#">(ECP-6209)</a> ARS Lighting, <a href="#">(ECP-XX23)</a> NVG Friendly NAV Lighting, <a href="#">(ECP-XX24)</a> Bay 4L Equipment Bay Life Limits, <a href="#">(ECP-6221)</a></p>	<p>Retrofit will consist of applying Fillet seal/brush coating to entire edge of lower leg of Support that interfaces with "Y679" Former Add a grounding strap to prevent accidental static discharge to an aircraft maintainer Add lighting to the ARS pod to improve the visibility of the tanking aircraft during night time refueling operations Modify cockpit lighting to be more friendly with night vision goggles (NVG) Retrofit Will Eddy Current Inspect and Install 1st Oversize Interface Fit Fasteners (14 Fasteners at Y326 &amp; 5 Fasteners at Y357). Final Retrofit Redesign will Install New J-Beam, New Clips, Oversize Fasteners, New Post Support and New Dagger Pins. Cracks were found on the Y591 Bulkhead during the FT-50 Teardown. The cracks were located at the keel Longeron attachment. Root cause investigation identified that 6 fasteners were missing between the horizontal leg of the Longeron and the bulkhead. This ECP describes the effort to redesign the Y577 Former resulting from cracks that were discovered during inspections conducted following the third lifetime of testing on the FT50 fatigue test article This ECP describes the effort to redesign the Web and Wing Drag Longeron resulting from cracks that were discovered during inspections conducted following the third lifetime of testing on the FT50 fatigue test article This ECP describes the effort to redesign the Y618 Inboard Former resulting from cracks that were discovered during inspections conducted following the third lifetime of testing on the FT50 fatigue test article Bushing migration will reduce the contact bearing area on the spars reducing fatigue life to less than spec requirements. Correct chafing condition between the hydraulic reservoir and structural components of the aircraft</p>
<p>Y591 Bulkhead Missing Fasteners at Keel Longeron, <a href="#">(ECP-6262)</a> FT50 18K Y577 Former Redesign, <a href="#">(ECP-6303R1)</a> FT50 18K Web and Wing Drag Longeron Redesign, <a href="#">(ECP-6304R1)</a> FT50 18K Y618 Inboard Former (74A342314) Redesign, <a href="#">(ECP-6306R1)</a> Wing-Aft Shear Tie Bushing Migration, <a href="#">(ECP-6241R1)</a> HS1 Reservoir Chafe, <a href="#">(ECP-XX29)</a></p>	

TEF Clip Fatigue Prevention, (ECP-6213R3)	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-XX30)	Improve boarding ladder sensors to prevent incorrect stowage indications
Brake Piston Assy Redesign, (ECP-XX31)	Redesign the brake piston assembly to improve reliability
Inlet Ice Detector Hardware Redesign, (ECP-XX32)	Redesign the ice detector system to reduce the number of false positives
Wing - Fuel Probe Corrosion Protection, (ECP-6219)	Add a layer of corrosion preventative between the fuel probe and its mounting to prevent galvanic corrosion between dissimilar metals
Common Preamps (ECP-6034)	Procures Common Preamps not funded in Lot 24
FT76 Forward Windshield Bolt Life Limit, (ECP-6258)	Failure analysis of FT76 Test Article bolt crack has resulted in a safe life determination of less than 6000 hours
Hydraulics Components Improvement, (ECP-XX33)	To improve reliability of the Hydraulic components failures
IN-FLIGHT REFUELING (IFR) PROBE LINKAGE REDESIGN, (ECP-6319)	Incorporating a new designed IFR probe
ECP-6323 / Bleed Orifice Oversize, (ECP-6323)	To correct structural discrepancy discovered during fleet operation
LANDING GEAR CONTROL UNIT (LGSU) MIT UPGRADE, (ECP-6320)	Incorporating a new designed LGSU unit including software upgrade
Fire Bottle Bay Over-Temperature, (ECP-XX38)	Modifies the aircraft to correct structural fatigue problems caused by degraded bay over-temperature
FT77 Wing Pylon Changes, (ECP-6282)	Failure analysis of cracks in the Mid-board Pylon Fitting discovered during teardown of the FT77 Test Article, has determined that it does not meet the 6000 hour specification requirement
Warm Air Duct Deflections retrofit modline, (ECP-6308)	Correction of Warm Air Duct Deflections
AFT Engine Mount Attach Fitting, (ECP-XX39)	Full life retrofit fix of the AFT engine mount pin
V38 OFF UPGRADES, (ECP-XX40)	Software Upgrade
G81S00004 SE UPGRADE, (ECP-JAX-SE-027)	To support the F/A18 Interconnect Box (IBOX), FLIR Power Supplies, and Strobe light power Supplies. (NRE & Data)
Hornet Feather (Vane) Wear PAD Retention System Redesign, (ECP-6075)	To redesign the Hornet Feather Wear Pad Retention System. The Hornet Feather pads have caused excessive wear of the engines afterburner ring on flight test a/c
Repeatable Release Holdback Bar, ECP-IRRHB-0147	Safety ECP, the RRHB (PLS) premature releases cause aircraft, flight deck, and personnel hazard condition
LEX Right Hand Walkway Mat, (ECP-6283) Safety ECP	Safety ECP, this ECP adds a walkway mat to the Right Hand Lex to replace existing anti-skid surface
Inlet Nacelle Bleed Plate Crack, (ECP-6277C1)	Cracks have been found on the Inlet Nacelle Bleed Plate caused by acoustic fatigue
Throttle Electronics Module Seal Improvement, (ECP-6228)	The throttle module sealing improvement adds various seals to the throttle electronics module to permanently prevent water intrusion into the box
Horizontal Stabilizer/Fuselage Rubbing, (ECP-6234)	Fuselage and Horizontal Stabilizer are rubbing against each other under aerodynamic load
Inadequate Clearance b/w APU Surge Control Valve and Y568 Support, (ECP-6238)	Redesign the 74A328283 ECS Floor Support so that adequate clearance exists between the APU Surge Control Valve and the ECS Floor Support to meet specification clearance requirements
FT50 18k Fuselage Outboard Former @ Y679 Failure, (ECP-6239R1)	To redesign the web of the aft fuselage outboard former at Y679 resulting from cracks that were discovered during inspections conducted following the third lifetime of testing on the FT50 fatigue test article
FT50 18K MLG Sidebrace Fitting Failure, (ECP-6240R1)	To redesign the LHS MLG Sidebrace/Retract Actuator Fitting resulting from cracks that were discovered during inspections conducted following the third lifetime of testing on the FT50 fatigue test article.
FT76 Jackpoint Support Fitting Life Limit, (ECP-6243)	Failure analysis of an FT76 Test Article crack discovered during teardown has resulted in a safe life determination of 5200 hours
INBOARD WING CLOSURE BOLT, ANTI-ROTATION RETAINER, (ECP-6245)	During FT77 testing, at 3188 SFH inspections revealed broken lock-wires between fasteners thru the inbd closure rib.
FT76 Y301 Sheet Metal Routing Closure Life Limit, (ECP-6246)	Failure analysis of cracks on the Y301 Sheet Metal Routing Closure (74A305026-2005, -2006, -2009), discovered during teardown on the FT76 Test Article, has determined that the details do not meet full life requirements
FT50 18K Y520 Former Cracks at Lower Drop Link, (ECP-6247R1)	Cracks were found on the Y520 Former during the FT-50 Teardown. The cracks were located in the LHS former flange to web fillet radius, common to the lower drop link connection to the former
Tank 1 Improvements - Vent Cap Addition, (ECP-6248)	This ECP will cover the retrofit incorporation of Vent Tube Cap into Tank #1 to prevent leaks
Nut Plate Installation Sealing, (ECP-6249)	Missing, inconsistent, and potentially unclear engineering drawing callouts for wet installation of nut plates may have contributed to missing face surface sealant on subcontractor installed nut plates
FT76 Bay 3-4 Avionics Door Seal Support, (ECP-6256)	Failure analysis of cracks on the Bay 3-4 Avionics Door Seal Support (74A305268-2002, -2003, -2004), discovered during teardown on the FT76 Test Article, has determined that the details do not meet full life requirements
HFC-125 Fire Extinguisher Mount - Final Corrective Action, (ECP-6257)	Failure of HFC-125 Fire Bottle mounts identified during AFC-440 Fire Bottle Cartridge Retrofit on some A/C. The F/A-18E/F contract requires a 6000-hour service life. This ECP corrects this condition
FT76 Z90 Longeron Life Limit, (ECP-6259)	Revise five (5) fastener hole callouts from Class 2X fit to Interference fit for Production. Interim Production/Retrofit- Install five (5) 1st Oversize Interference fit fasteners
FT50 18K Y491 Bulkhead Redesign, (ECP-6260)	Cracks were found on the Y491 Bulkhead during the FT-50 Teardown. The cracks were located at the access hole at Z100 and the keel web attachment.
FT76 LH LEX Intermediate SPAR Life Limit, (ECP-6261)	Failure analysis of two cracks LH LEX Intermediate Spar at the CY286 Rib attachment, discovered during teardown on the FT76 Test Article, has determined that the spar does not meet full life requirements.
RH LEX CLOSURE AT Y301 LIFE LIMIT, (ECP-6263)	Failure analysis of cracks on the RH LEX Closure at Y301, discovered during teardown on the FT76 Test Article, has determined that the closure does not meet full life requirements
FT50 Y436 BULKHEAD LIFE LIMIT, (ECP-6264)	During tear down of the FT-50 test article cracks were found on the Y436 Center Bulkhead (74A325203 -2005) at the attachment of the dorsal deck stiffener on both the LH and RH side. Test Correlation analysis indicates the Safe Life is 3400 SFH.
FT76 Aft Windshield Attach Bolt Life Limit, (ECP-6269)	Failure analysis performed on a crack on the LH Aft Windshield Attach Bolt has determined that this bolt does not meet full life requirements
FT76 LH LEX Closure at Y265, (ECP-6270)	Failure analysis of the cracks at the LH LEX Closure at Y265 (CY260 Rib Attachment), discovered during teardown on the FT76 Test Article, has determined that the spar does not meet full life requirements
FT76 NLG Retract Actuator Supports & X7 Keel, (ECP-6271)	Retrofit is to replace (19) 3/16 in. Diameter Fasteners (Class 2X) With (9) 2nd Oversize in. Diameter Interference Fit Fasteners & (10) in. Diameter Interference Fit Fasteners
FT77 Wing Inboard Closure Rib Life Limit, (ECP-6275C1)	Failure analysis of three cracks in the Inboard Closure Rib at two hydraulic pass through holes, discovered during teardown of the FT77 Test Article, has determined that it does not meet the 6000 hour specification requirement
FT76 LEX Intermediate Spar at Y301 Life Limit, (ECP-6276)	Failure analysis of a crack in the LEX Intermediate Spar Integral Stiffener @ Y301, discovered during teardown on the FT76 Test Article, has determined that the detail does not meet full life requirements
FT76 Canopy Sill Longeron and Upper Nose Barrel Longeron at Y204 Life Limit, (ECP-6278)	Failure analysis of cracks in the Canopy Sill Longeron and the Upper Nose Barrel Longeron @ Y204 discovered during teardown on the FT76 Test Article, has determined that the details do not meet full life requirements
MLG Wheel Well Drainage, (ECP-6280)	Water retention in the recesses of the trailing edge casting common to the L/RHS Strut Doors
TEF SHROUD LINK, (ECP-6284)	Recent analysis to determine root cause of fleet failures has led to the finding that the TEF inboard link does not meet static requirement and loose jam nuts and maximum rigging length of the lower clevis exacerbate the problem
FT77 Lower Wing Skin Splice Fitting Life Limit, (ECP-6285C1)	Failure analysis of a drain hole crack in the Wing Lower Splice Fitting discovered during teardown of the FT77 Test Article, has determined that it does not meet the 6000 hour specification requirement
Low Speed Loss of Normal Brakes with Anti-Skid On, (ECP-6286)	The aircraft specification requires that the brake control system shall provide a means of controlling brake pressure on all landing surfaces on which the aircraft is designed to operate.
FT76 Avionics Bay 3 & 4 Door Hinges, (ECP-6292)	The Bay 3/4 Avionics Door Hinges and Hinge Pins were cracked at several tang locations and the Hinge Pins were broken at four locations. Some of these cracks were initially discovered after 12,000 SFH of fatigue testing and remaining anomalies during teardown.

FT50 18K Access Panel Edge Stiffener Redesign, <a href="#">(ECP-6293)</a>	Cracks were found on the door edge stiffener at Y524 during the FT-50 Teardown. Test Correlation analysis indicates the Safe Life is 4500 SFH
FT77 Trailing Edge Flap Actuator Rib Life Limit, <a href="#">(ECP-6294)</a>	Failure analysis of a fastener hole crack in the TEF Actuator Fitting discovered during teardown of the FT77 Test Article, has determined that it does not meet the 6000 hour service life
FT77 Wing Spar 6 Life Limit, <a href="#">(ECP-6295)</a>	Failure analysis of a crack in the inboard radius of the spar discovered during teardown of the FT77 Test Article, has determined that it does not meet the 6000 hour service life
Inadequate Clearance Between APU SCV and Structure, <a href="#">(ECP-6211)</a>	Correct chafing condition between aircraft structural material and the APU SCV to prevent damage to the aircraft structure
EA-18G Correction of Operational Test Discrepancies, <a href="#">(ECP-XX41)</a>	Redesign / Modify system and / or subsystems discrepancies discovered during OPEVAL.
AESA OBSOLESCES PARTS, <a href="#">(ECP-XX)</a>	PEI FOAM pt 2
Redesign of Backrest Operation Plunger MBEU148542 - Safety, <a href="#">(ECP-93384MB)</a>	Safety ECP incorporation a redesigned knurled and rounded top plunger backrest part# MBEU148542
LEX Retrofit Bundle ECPs (6261/6263/6270/6276) <a href="#">(ECP-6310)</a>	Retrofit Only ESP. To combine the retrofits originally proposed in ECPs 6261, 6263, 6270, and 6276 into a single ECP
FT50 Y591 BULKHEAD AT SIDE LONGERON LIFE LIMIT <a href="#">(ECP-6287)</a>	Cracks were found on the Y591 Bulkhead (74A328312) during the FT-50 Teardown. The Y591 Bulkhead is a Maintenance Critical part.
DOORS 37, 307, AND 124 DRAINAGE ISSUES, <a href="#">(ECP-6301)</a>	Modification to correct door failures
FT50 STRUCTURAL RELATED ISSUES <a href="#">(ECP-XX45)</a>	To Correct A/C Fatigue related discrepancies as a result of FT-50 remaining issues
CRU-99/A Solid-State Oxygen Monitor (SSOM) <a href="#">(ECP-590)</a> , Safety ECP	Safety improvement to the OBOGS oxygen system, providing an additional monitoring capabilities against Hypoxia resulting in safer flight operation.
Arresting Hook Failures, <a href="#">(ECP-XX46)</a>	To correct fleet discovered arresting hook failures
Y618 INBRD Former near Keel Longeron Arresting Load, <a href="#">(ECP-6325)</a>	Modifies Y618 Former to prevent cracking
Air Vehicle Safe Life Fatigue Modifications, <a href="#">(ECP-XX43)</a>	Modification to improve safe life fatigue issues
FT78 Flight Control Failures, <a href="#">(ECP-XX47)</a>	To correct flight control failures discovered during FT78
Centerline Pylon Feed-Thru Assembly Interface <a href="#">(ECP-6185)</a>	This ECP will resolve plate thickness, plate receptacle orientation and aircraft wiring clocking in Retrofit
Engine Bay Door Strut Redesign <a href="#">(ECP-6089R1)</a>	This ECP corrects the open forward engine bay door clearance problem with the ground during lateral engine remove and replace as required by the detail specification
Retrofit of ECS/OBUGS Tee & Elbow due to corrosion issues, <a href="#">(ECP-1036NI)</a>	The bodies of both the Tee and Elbow are IVD coated aluminum. This change will replace each of the these parts with units made with stainless steel bodies
Fuel Pressurization System Check Valve Failure, <a href="#">(ECP-1049NI)</a>	Multiple Lot 23 and below aircraft have had internal fuel tank air pressurization system fuel intrusion due to pressurization system check valve failures
MLG Planing Mechanism Bellcrank Pivot Bolt Redesign, <a href="#">(ECP-5051)</a>	An improvement to the Planing Mechanism Bellcrank Pivot Bolt to eliminate the potential for stress corrosion cracking
BALD Transponder Rotation - Change Incorporation Level, <a href="#">(ECP-5046C1)</a>	This BALD Element was experiencing failures. An EI determined that it was collecting water and soap/contaminate in the connector backshell from aircraft washing procedures. This ECP will correct this condition
FT50 18K Fuel Floor Longeron at Y436 Redesign, <a href="#">(ECP-6305R1)</a>	To redesign the Fuel Floor Longeron resulting from cracks that were discovered during inspections conducted following the third lifetime of testing on the FT50 fatigue test article
FT77 Retrofit ECP for the Outer Wing, <a href="#">(ECP-6309)</a>	The correct structural discrepancies in the outer wing area
FT77 Inner Wing Kick Rib, <a href="#">(ECP-6311)</a>	This is to correct cracks discovered on the FT77 Test Article Analysis initially indicated a Safe life of 4700 SFH in the Inner Wing Kick Rib
Dry Bay Fire Suppression System (DBFSS), <a href="#">(ECP-6322)</a>	To correct fleet operational failures
Secondary Regulator Bay Vent Line Modification, <a href="#">(ECP-6336)</a>	New vent line routing to avoid possible overheating condition in the center keel area
Vertical Tail Rudder Hinge Fairing Fastener Improvements, <a href="#">(ECP-6337)</a>	Design change to the fasteners mating the fairings to the intermediate support/stiffening brackets. This change involves changing the 5/32" diameter TiCb rivets to 3/16" diameter steel rivets
Design Improvements to FPU-11A 480G External Fuel Tank Modular Valve, <a href="#">(ECP-6338)</a>	Issues with fuel transfer and refueling of the external fuel tanks prompted an EI of the external tank modular valve. EI revealed valve performance compromised by quality issues and the need for Design Product Improvements
Incorporation of GFE Improved Solid State Oxygen Monitoring, <a href="#">(ECP-6339)</a>	OEM support for incorporation of GFE Improved Solid State Oxygen Monitoring System CRU-99/P
FT77/78 Aileron Retrofit, <a href="#">(ECP-6341)</a>	Failure analysis of a drain hole crack in the aileron, discovered during teardown of the FT78 has determined the safe life is 3400 hours which does not specification
External Fuel Tank Air Pressure Regulator (ETPR), <a href="#">(ECP-6343)</a>	Excessive leakage of the external fuel tank air pressure (ETPR) regulator, can potentially cause backpressure in the external air manifold, which in turn can interfere with refueling as identified by on-going investigation into Fleet failures
F/A-18 E/F Missile Rib Corrosion Prevention Improvements, <a href="#">(ECP-6345)</a>	Corrosion has been found on the Outer Wing Panel Missile Rib. This ECP will allow coating and sealing configuration changes to improve corrosion protection on the missile rib and surrounding structure.
Fuel Tank Wiring Retrofit Improvements, <a href="#">(ECP-XX48)</a>	To incorporate a longer wire harness and install restraining clamp to eliminate wire breakage.
F/A18 NACES Improved Upper Catapult Sleeve, <a href="#">(ECP-XX49)</a> Safety ECP	Retrofit improvement of the upper catapult sleeve components
ALE-47 Structure Missing Drain Path, <a href="#">(ECP-6230)</a>	This modification adds a drain hole in the 74A328744 skin beneath the L/RHS ALE 47 Chaff Dispenser Bucket to prevent collection or entrapment of unwanted fluids preventing corrosion condition
Bay 1L Cable Routing Change, <a href="#">(ECP-6328)</a>	Modification to reroute cable assembly 74A923203 in Bay 1L to provide the required .50 inch clearance.
Dorsal Cover 26 Interference With Climb Vent, <a href="#">(ECP-6349)</a>	This ECP modifies the aircraft by adding electrical bonding to subsystem components and nutplate installation sealing in the Ctr/Aft Fuselage, additionally, modifies the aircraft by adding electrical bonding to the forward fuselage equipment shelf
LH Aileron Servo Cylinder Pressure Tube, <a href="#">(ECP-6350)</a>	Modification to replace the 74A681712-1003 & 74A681732-1001 hydraulic tubes with 74A681842-1001 & 74A681843-1001 hydraulic tubes for increased tube clearance to the outer wing lower skin.
F/A-18E/F Lower Wing Hinge Corrosion Improvements, <a href="#">(ECP-6353)</a>	This ECP will address severe corrosion on the outer wing outboard aileron hinge, the inner wing inboard and outboard trailing edge flap hinges by incorporating corrosion-resistant coating and sealing configuration
NLG Drag Brace Fairing - Drain Hole, <a href="#">(ECP-6356)</a>	Modification to prevent the nose landing gear drag brace fairing from trapping water behind the interior stiffeners. The trapped water results in corrosion forming on the interior surfaces of the fairing. Drainage holes will be added to eliminate
Canopy Sill Longeron at CY326.5 Inboard Flange Radius Safe Life Limit, <a href="#">(ECP-6358)</a>	Modification to beef up the canopy sill Longeron to prevent severing condition
Re-Profiled and Modified NACES Backplate, <a href="#">(ECP-9425MB)</a>	Modification to the NACES backplate prevent cracks
Incorporation of EA-18G Operational Flight Program (OFP) Ver.38, <a href="#">(ECP-6300)</a>	Modification to provide ILS elements in release of the EA-18G Flight Control Computer (FCC) Operational Flight Program (OFP) software update (V38) for F/A-18E/F
F/A-18E/F Fuel Related Upgrade Issues, <a href="#">(ECP-XX50)</a>	Modification to correct discrepancies within the internal and external fuel tanks and fuel plumbing, including electrical components
F/A-18E/F ECS Subsystem Upgrade Issues, <a href="#">(ECP-XX51)</a>	Modification to correct discrepancies within the ECS components and sub-component elements
F/A-18E/F Subsystem Retrofit Upgrade Issues, <a href="#">(ECP-XX52)</a>	Modification to correct discrepancies in the aircraft mechanical, hydraulic, electrical, and cooling systems
F/A-18E/F Structure Stress Corrosion Cracking Issues, <a href="#">(ECP-XX53)</a>	Modification to correct structural stress corrosion issues during fleet usage
F/A-18E/F Outer Wing Panel Inboard Aileron Hinge, <a href="#">(ECP-XX54)</a>	Modification to replace a life limited hinge with a full live hinge
<p>Each change has been or will be tested prior to installation in the F/A-18 and EA-18G.                      Some ECPs are "O" Level Installs.                      Some ECPs do not require kits, require installs and Non-Recurring efforts.</p>	

Exhibit P-3a Individual Modification

MODIFICATION TITLE: E/F CORRECTION OF OPERATIONAL DISCREPANCIES (OSIP 14-03)

MODELS OF SYSTEMS AFFECTED: F/A-18E/F & EA-18G TYPE MODIFICATION: SAFETY /RELIABILITY/IMPROVEMENT

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
ECP-6106R1 / Exhaust Overtemp Final Fix/Bard Stacks	223	16.0																	223	16.0	
ECP-6114 / Aft ECS Cooling Fan	12	0.1																	12	0.1	
ECP-6002 / FCC Processor Upgrade	28	1.3																	28	1.3	
ECP-6104 / MLG Door Bushing Migration	32	0.1																	32	0.1	
ECP-6088 / Aft Fuselage Outboard Former Fwd Flange @Y645																					
ECP-6194 / MLG Trunnion Bearing Loose Retention Nut	80	0.3																	80	0.3	
ECP-XX2 / Long Stick Position Tx																					
ECP-6171 / Skin 12 Stiffener Back-up Structure	54	0.1																	54	0.1	
ECP-6199 / Aft Fan Shutoff Valve																					
ECP-6313 / AN/APN-194 (RADAR Altimeter) Mounting Tray Modification Step 2																					
ECP-6193R1/R2 / (LEX ) Lwr Surface/Structure Cracks Redesign Y286 \ Y294	89	23.9					60	0.6											149	24.5	
ECP-6145 / MLG Outboard Tire Door Clevis																					
ECP-6188 / Y436 Inlet Former	183	1.9																	183	1.9	
ECP-6203 / FT50 Keel Beam Lower Cap	38	0.1																	38	0.1	
ECP-XX12 / FT50 Teardown Bulkhead Cracking							72	0.8	72	0.8	72	0.9	72	0.9	37	0.5			325	3.9	
ECP-6326 / FT50 Fuel Barrier Web at Y510	72	0.5	72	0.5	72	0.5	72	0.5	72	0.5	31	0.2							391	2.7	
ECP-6229 / FT50 18K Fuselage Outboard Former at Y645 Failure					60	0.1	60	0.1	60	0.1	60	0.1	60	0.1	60	0.1	25	0.1	385	0.8	
ECP-6183R1 / FT50 Failure of Upper Wing Skin Splice Plate	96	0.6																	96	0.6	
ECP-6098C1 / DOOR 49 Replacement	12	0.2																	12	0.2	
ECP-6068 / Horizontal Actuator Cover Door 71	62	1.1																	62	1.1	
ECP-6196C1 / MLG RH Upper Planing Link Attach Fitting Failure	88	0.3																	88	0.3	
ECP-6208 / LEX Vent Mechanism Support Assembly Rod end Clevis Failure	92	*																	92	*	
ECP-6216 / LDS Fuel Wash Filter	98	0.6																	98	0.6	
ECP-6255 / ECS Ejector Cracks																					
ECP-6321 MLG DOOR HINGE PINS STANDARD HARDWARE CONVERSION	362	0.2			72	0.2													434	0.4	
ECP-6217 / Cockpit Pressure Warning System (CPWS)	190	1.7																	190	1.7	
ECP-6235 / MLG Strut Door Departures	136	0.8																	136	0.8	
ECP-XX21 / HOL Follow-on Upgrades Lot 25 & Up																					
ECP-XX22 / 18E Follow-on upgrades Lot 24 & Below																					
ECP-6076 / MLG Proximity Switches & Sidebrace Downlock Mechanism	14	0.1																	14	0.1	
ECP-6190 / Fuel System Ground Pressurization Tube Water Entrapment	54	0.1																	54	0.1	
ECP-6191 / Wing Modification for Transonic Flying Qualities Improvement																					
ECP-6198 / Radar Bay Vent Valve Fail - MSP 862	76	*																	76	*	
ECP-6206 / Y679 Former Boot Strap Interface Fillet Seal Missing	80	*																	80	*	
ECP-6209 / ECS Cooling Duct Grounding Strap																					
ECP-XX23 / ARS Lighting																					
ECP-XX24 / NVG Friendly NAV Lighting																					
ECP-6221/ Bay \$L-Y357 Bulkhead Horizontal Flange Life Limit	109	1.0																	109	1.0	
ECP-6262 / Y591 Bulkhead Missing Fasteners at Keel Longeron	180	1.3																	180	1.3	
ECP-6303R1 / FT50 18K Y577 Former Redesign	216	0.6			72	0.2	85	0.2											373	1.0	
ECP-6304R1 / FT50 18K Web and Wing Drag Longeron Redesign	216	0.6			72	0.6	67	0.2											355	1.4	
ECP-6306R1 / FT50 18K Y618 Inboard Former (74A342314) Redesign	216	0.6			72	0.4	73	0.2											361	1.2	
ECP-6241R1 / Wing-Alt Shear Tie Bushing Migration	186	0.2																	186	0.2	
ECP-XX29 / HS1 Reservoir Chafe																					
ECP-6213R3 / TEF Clip Fatigue Prevention		0.1			36	0.4	36	0.4	34	0.4	36	0.4							142	1.7	
ECP-XX30 / Boarding Ladder Sensors Improvement																					
ECP-XX31 / Main Wheel Brake Changes																					
ECP-XX32 / Inlet Ice Detector Hardware Redesign																					
ECP-6219 / Wing - Fuel Probe Corrosion Protection	286	0.1																	286	0.1	
ECP-6034 / Procures Common Preamps not funded in Lot 24	36	6.0																	36	6.0	
ECP-6258 / FT76 Forward Windshield Bolt Life Limit	76	*																	76	*	
ECP-XX33 / Hydraulics Components Improvement					36	*	72	0.1	72	0.1	72	0.1	11	*					263	0.2	

ECP-6319 / IN-FLIGHT REFUELING (IFR) PROBE LINKAGE REDESIGN	198	1.5																	198	1.5
ECP-6323 / Bleed Orifice Oversize	361	0.1																	361	0.1
ECP-6320 / LANDING GEAR CONTROL UNIT (LGCU) MIT UPGRADE	10				36	0.2													46	0.2
ECP-XX36 / Fire Bottle Bay Over-Temperature																				
ECP-6282 / FT50 & FT77 Wing Pylon Changes	72	10.5	72		112	8.7	48												304	19.2
ECP-6308 / Correction of Warm Air Duct Deflections					36	*													36	*
ECP-XX39 / AFT Engine Mount Attach Fitting					62	0.2	72	0.4	72	0.4	72	0.4	72	0.5	37	0.2			387	2.2
ECP-XX40 / V38 OFP																				
ECP-JAX-SE-027 / G81S00004 SE UPGRADE																				
ECP-6075 / Hornet Feather (Vane) Wear Pad Retention System Resign																				
ECP-IRRHB-0147 / Repeatable Release Holdback Bar	85	0.4																	85	0.4
ECP-6283 / LEX Right Hand Walkway Mat	438	0.4																	438	0.4
ECP-6227C1 / Intel Nacelle Bleed Plate Crack																				
ECP-6228 / Throttle Electronics Module Seal Improvement													72	1.1	58	0.9			130	2.1
ECP-6234 / Horizontal Stabilator Fuselage Rubbing	60	1.5			207	6.2													267	7.7
ECP-6238 / Inadequate Clearance B/W APU Surge Control Valve & Y568 Supt																				
ECP-6239R1 / FT 50 18K Fuselage Outboard Form @ Y679 Failure	144	0.2			72	0.3	72	0.1	19	*									307	0.6
ECP-6240 R1/FT50 18K MLG Sidebrace Fitting Failure			72	0.7	108	3.5	72	4.1	72	4.2	11	0.7							335	13.3
ECP-6243 / FT76 Jackpoint Support Fitting Life Limit	14	0.1																	14	0.1
ECP-6245 / INBOARD WING CLOSURE BOLT, ANTI-ROTATION RETAINER	58	0.3																	58	0.3
ECP-6246 / FT76 Y301 Sheet Metal Routing Closure Life Limit	6	*																	6	*
ECP-6247R1 / FT50 18K Y520 Former Cracks at Lower Drop Link	216	0.5			93	0.2													309	0.8
ECP-6248 / Tank 1 Improvements - Vent Cap Addition	98	*																	98	*
ECP-6249 / Nut Plate Installation Sealing	38	0.2																	38	0.2
ECP-6256 / FT76 Bay 3-4 Avionics Door Seal Support	15	*																	15	*
ECP-6257 / HFC-125 Fire Extinguisher Mount - Final Corrective Action	266	1.6																	266	1.6
ECP-6259 / FT76 Z90 Longeron Life Limit	13	*																	13	*
ECP-6260 / FT50 18K Y491 Bulkhead Redesign					60	0.9	60	0.9	60	0.9	60	1.0	60	1.0	85	1.4			385	6.1
ECP-6261 / ECP-6261 FT76 LH LEX Intermediate SPAR Life Limit																				
ECP-6263 / RH LEX CLOSURE AT Y301 LIFE LIMIT																				
ECP-6264 / FT50 Y436 BULKHEAD LIFE LIMIT					60	1.2	60	1.2	60	1.2	60	1.3	60	1.3	85	1.8			385	8.1
ECP-6269 / FT76 Alt Windshield Attach Bolt Life Limit																				
ECP-6270 / FT76 LH LEX Closure at Y265																				
ECP-6271 / FT76 NLG Retract Actuator Supports & X7 Keel	12	*																	12	*
ECP-6275C1 / FT77 Wing Inboard Closure Rib Life Limit	84	*																	84	*
ECP-6276 / FT76 LEX Intermediate Spar at Y301 Life Limit																				
ECP-6278 / FT76 Cnpy Sill Lngm & Upr Nose Barrel Lngm @ Y204 Life Limit	3	*																	3	*
ECP-6280 / MLG Wheel Well Drainage																				
ECP-6284 / TEF SHROUD LINK			58	0.3															58	0.3
ECP-6285C1 / FT77 Lower Wing Skin Splice Fitting Life Limit																				
ECP-6286 / Low Speed Loss of Normal Brakes with Anti-Skid On																				
ECP-6292 / FT76 Avionics Bay 3 & 4 Door Hinges	10	0.1																	10	0.1
ECP-6293 / FT50 18K Access Panel Edge Stiffener Redesign																				
ECP-6294 / FT77 Trailing Edge Flap Actuator Rib Life Limit					62	0.6	72	0.7	72	0.7	72	0.8	72	0.8	37	0.4			387	4.0
ECP-6295 / FT77 Wing Spar 6 Life Limit	137	0.1																	137	0.1
ECP-6211 / Inadequate Clearance Between APU SCV and Structure																				
ECP-XX41 / EA-18G Correction of Operational Test Discrepancies																				
ECP-XX / AESA OBSOLESCE PARTS		1.9																		1.9
ECP-9384MB / Redesign of Backrest Operation Plunger MBEU148542 - Safety	572	*																	572	*
ECP-6310 / LEX Retrofit Bundle ECPs (6261/6263/6270/6276)	8	0.2																	8	0.2
ECP-6287 / FT50 Y591 BULKHEAD AT SIDE LONGERON LIFE LIMIT					60	0.1													60	0.1
ECP-6301 / DOORS 37, 307, AND 124 DRAINAGE ISSUES																				
ECP-XX45 / FT50 STRUCTURAL RELATED ISSUES					60	0.1	60	0.1	60	0.1	60	0.1	60	0.1	60	0.1			360	0.8
ECP-590 / CRU-99/A Solid-State Oxygen Monitor (SSOM)																				
ECP-XX46 / ARRESTING HOOK FAILURES					60	1.2	60	0.9	60	1.0	60	1.0	60	1.0	60	1.0	145	2.4	505	8.5
ECP-6325 / Y618 INBRD FRMR NEAR KEEL LONGERON ARRESTMENT LOAD					60	0.3	60	0.3	60	0.3	60	0.3	60	0.3	85	0.5			385	2.1
ECP-XX43 / AIR VEHICLE SAFE LIFE FATIGUE MODIFICATIONS																				
ECP-XX47 / FT78 FLIGHT CONTROL FAILURES					60	0.3	60	0.3	60	0.3	60	0.3	60	0.3	60	0.3	145	0.8	505	2.7
ECP-6185 / Centerline Pylon Feed-Thru Assembly Interface	12	*																	12	*
ECP-6089R1 / Engine Bay Door Strut Redesign							59	0.4											59	0.4
ECP-1036NI / RETRO OF ECS/OBUGS TEE & ELBOW - CORROSION ISSUES	369	*																	369	*
ECP-1049NI / Fuel Pressurization System Check Valve Failure	59	0.1																	59	0.1
ECP-5051 / MLG Planing Mechanism Bellcrank Pivot Bolt Redesign	310	0.5																	310	0.5
ECP-5046C1 / BALD Transponder Rotation - Change Incorporation Level	133	0.1																	133	0.1



Exhibit P-3a Individual Modification

MODIFICATION TITLE: CORE AVIONICS IMPROVEMENTS / UPGRADES (OSIP 023-04)

MODELS OF SYSTEMS AFFECTED: F/A-18A-F TYPE MODIFICATION: Capability and Reliability Improvements

**DESCRIPTION/JUSTIFICATION:**  
 This Operational Safety Improvement Program (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 (UPC) for the Joint Mission Planning system (JMPS) must implement frequent software changes in conjunction with production aircraft modifications. The JMPS UPC changes required in conjunction with System Configuration Set (SCS) changes must include software regression tests to ensure proper operation and integration with other aircraft systems in JMPS components, 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 F/A-18 E/F aircraft. This retrofit leverages non-recurring integration for Lot 29 aircraft production incorporation, replacing the current Cockpit Video Recording System (CVRS) recorder. This OSIP also includes a requirement to retrofit the Deployable Flight Incident Recorder System (DIFRS) to address the issue of the current COSPAT SARSAT satellite becoming obsolete. This old satellite frequency will be replaced and the DIFRS box will be modified to work with a new satellite beacon frequency. To support updates to Operational Flight Program (OFF) for on-going aircraft modernization and modification efforts necessitate periodic software releases. The procurement of SCS is not a stand alone cost but integration for the overall improvement to the end item to allow the integration of new capabilities and or performances to be complete. The SCS builds anticipated are used to support retrofit hardware configuration changes and the accompanying software change and associated testing driven by the APN5 funded OSIP's. SCS builds will include 20X, 21X, 23X, 25X, H4, H5, H6, H7, H8, H9, H10 and H12. SCS build integration will comprise of Operational Flight Programs (OFF), Support Equipment Test Program Sets (TPS) Updates, PALS assesment, Operational analysis and functional retrofit implementation of aircrew and maintenance training systems, OFF Memory Loader Verifier Set Personal Computer Memory Card International Association (PCMCIA) cards, associated software licenses and data rights and publication updates.

**DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:**  
 A Mission Planning system supporting F/A-18A-F is currently fielded. A Joint Mission Planning System (JMPS) was developed and fielded for F/A-18A-F in the first quarter fiscal year 2005 with 19C and H2E+. The Solid State Recorder retrofit was approved as a Congressional new start in August 2004. Validation/Verification for the SSR was completed in the second and third quarter fiscal year March 2005, with retrofit on two squadrons completed in the fourth quarter of fiscal year 2005. SCSs are scheduled for release to the fleet on an annual basis or as needed to fulfill emerging fleet requirements. FY2007 SUPPLEMENTAL : Solid State Recorder (SSR) (\$2.304M).

**FINANCIAL PLAN: (TOA, \$ in Millions)**

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total			
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$		
RDT&E																						
PROCUREMENT																						
Installation Kits																						
*A* Kits E/F Solid State Recorder	136	5.0	4	0.1	28	0.8	24	0.5	48	1.0	26	0.5								266	8.0	
Installation Kits N/R																						
Solid State Recorder		10.9		1.1		1.0															13.0	
DIFRS																						
Installation Equipment																						
MP/UPC		25.4		*		1.4		4.4		2.8		2.9		2.9		3.4					43.2	
*B* Kits E/F Solid State Recorder	136	5.1	4	0.3	28	2.5	24	0.1	48	0.2	26	0.1								266	8.3	
SCS																						
20X		0.2																			0.2	
21X				0.8		0.2															0.9	
23X						0.2		0.8													1.0	
25X																						
H4		0.2																			0.2	
H5																						
H6																						
H7				2.2				0.2													2.4	
H8		2.8		0.6		3.0															6.4	
H9																						
H10																						
H12																						
Installation Equipment N/R																						
Engineering Change Orders		0.9		0.2																	1.1	
Data		0.7																			0.7	
Training Equipment				0.1																	0.1	
Support Equipment		1.0		0.1				0.3		0.4		0.3		0.1							2.2	
ILS		2.7				0.1		0.1		*		0.1		0.2							3.2	
Other Support		1.1		0.2				0.4		2.6		3.0		3.7		3.5					14.4	
Interim Contractor Support																						
Installation Cost	48	0.4	4	0.1	28	0.1	24	0.1	48	*	26	*									178	0.7
Total Procurement		56.4		5.7		9.2		6.8		7.060		7.0		6.8		6.9					105.8	

- 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: 6 Months PRODUCTION LEADTIME: 5 Months

CONTRACT DATES: FY 2009: Apr-09 FY 2010: Apr-10 FY 2011: Apr-11

DELIVERY DATE: FY 2009: Sep-09 FY 2010: Sep-10 FY 2011: Sep-11

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (48) kits	48	0.4																		48	0.4
FY 2009 (4) kits			4	0.1																4	0.1
FY 2010 (28) kits					28	0.1														28	0.1
FY 2011 (24) kits							24	0.1												24	0.1
FY 2012 (48) kits									48	*										48	*
FY 2013 (26) kits											26	*								26	*
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete ( ) kits																					
<b>TOTAL</b>	<b>48</b>	<b>0.4</b>	<b>4</b>	<b>0.1</b>	<b>28</b>	<b>0.1</b>	<b>24</b>	<b>0.1</b>	<b>48</b>	<b>*</b>	<b>26</b>	<b>*</b>							<b>178</b>	<b>0.7</b>	

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	48				4	4	8	8	8	2	8	7	7	12	12	12	12	7	7	6	6
Out	48				4	4	8	8	8	2	8	7	7	12	12	12	12	7	7	6	6

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										178
Out										178

Exhibit P-3a Individual Modification

MODIFICATION TITLE: AESA/AN-APG-65/AN-APG-73 (OSIP 002-07)

MODELS OF SYSTEMS AFFECTED: F/A-18 A/B/C/D/E/F TYPE MODIFICATION: AVIONICS UPGRADE

DESCRIPTION/JUSTIFICATION:

The F/A-18E/F and EA-18G program has developed and integrated the AN/APG-79 Active Electronically Scanned Array (AESA) Radar Detection and Ranging (RADAR) system for installation in Lot 26 and subsequent Block II, Super Hornet and Growler aircraft. The integration of the AN/APG-79 AESA RADAR system into the F/A-18E /F and EA18G greatly improves the weapon system's threat detection range, high resolution Synthetic Aperture RADAR (SAR) ground mapping and targeting capability, aircraft survivability and situational awareness. This OSIP also includes non-recurring engineering for reliability and operational safety improvements into the AN/APG-65 and AN/APG-73 Radars. The APG-79 is a significantly more reliable radar system. Various Engineering Change Proposals (ECPs) are currently in work to correct deficiencies, improve overall system reliability and make safety improvements. Some ECP's identified are ECP-6038 which incorporates APG-79 into Lot 26 and subsequent aircraft, ECP-6279 AN/APG-79 (AESA) Radar Producibility Modification, ECP-6297 Radar Bias Converter (RBC) Start-Up Circuit Correction, and ECP-6298 RE102 EMI Correction.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Forward fit of the AN/APG-79 AESA RADAR system began with 8 units in Lot 27, 12 units in Lot 28 and 22 units in Lot 29. Beginning in Lot 30, all F/A-18 E/F and EA-18G aircraft will be forward fit with the AN/APG-79 AESA RADAR. This OSIP includes the retrofit of the AN/APG-79 AESA system into 133 Lot 26-29 F/A-18E/F aircraft previously outfitted with AN/APG-73. Obsolescence is included for the AN/APG-79 AESA to address non-recurring activities driven by vanishing suppliers and limited military demand for commercial parts/components. The procurement of kits commenced in FY 2008 with the first installation occurring in FY 2009. The installation of kits will be accomplished by a Fleet Support Team traveling to two locations (NAS Oceana and NAS Lemoore) and executing the retrofit or aircraft by squadron. This OSIP also includes funds to support ECP 508 that converts some AN/APG-65 radars to AN/APG-73 and non-recurring for reliability and operational safety improvements / obsolescence into the AN/APG-65 and AN/APG-73-RADAR's. FY 2009 Congressional funding (\$7.6M) received for Expand 4/5 funding for software integration and to procure 3 Hardware Kits. FY 2009 OCO funding (\$10M) received for TLE Intergrations / Software Development.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Radars	19	54.2	19	53.2			20	54.9	3	10.1							72	835.4	133	1,007.8	
Installation Kits																					
Installation Kits N/R	2	10.6		1.3																2	11.9
Installation Equipment																					
P-Kit Radome (ECP 6038)	5	3.2	6	4.4			29	12.9	3	1.3			10	4.0			80	28.0	133	53.8	
P-Kit Modules WRAs (ECP-6279)	11	12.5	11	13.2			26	20.5	5	4.1							115	143.0	168	193.3	
B-Kit 4 Component/Install (ECP-6298)	17	0.1																		17	0.1
B-Kit 5 (ECP-6298)	20	1.4																		20	1.4
B-Kit Expand 4/5 SMPE	40	2.3																		40	2.3
B-Kit Expand 4/5 Kits	35	17.8	3	0.7																38	18.4
B-Kit LCFU		0.5																			0.5
B-Kit APG-65/75							1.8		1.5		1.5		0.7		0.6						6.1
Installation Equipment N/R				0.6																	0.6
Engineering Change Orders		3.3		6.1		24.6		26.3		27.1				22.4		5.2					115.0
Data		0.5		0.5		0.1															1.1
Training Equipment																					
Support Equipment		0.1		0.1		0.1		0.1		0.1		0.1		3.0		3.0					6.6
ILS													13.2		21.8						34.9
Other Support		15.2		28.3		19.8		6.8		16.9		12.5		31.7		57.5					188.7
Interim Contractor Support																					
Deliveries																					
Radars			2		16		15		5		20		3				72				133
Installation Cost																					
ECP 6038									3	1.3	25	10.0	15	6.6			90	31.6	133	49.4	
ECP 6279							10	2.9	28	8.4	15	4.6					115	54.8	168	70.7	
Total Procurement		121.6		108.1		44.7		126.2		70.8		28.8		81.6		88.1		1,092.8			1,762.6

- Notes:
1. Totals may not add due to rounding.
  2. The APG-79 Retrofit Efforts are on a lead time installation schedule. The installation process begins with the delivery of the radars. The radars have a lead time of approximately 24 months to delivery. In order to capture the \$276M cost avoidance, ECP 6279 and ECP 6038 are dependent upon the delivery of the radars. Once the radars deliver, then the ECP 6279 process begins which converts the radars which were removed from the aircraft from Configuration A to Configuration B. Once the radar has been converted under ECP 6279, it is then retrofitted into the aircraft as ECP 6038.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: F/A-18A E/F MODIFICATION TITLE: AESA/AN-APG-65/AN-APG-73 (OSIP 002-07) (Retrofit Radar Deliveries)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: "O" Level Install

ADMINISTRATIVE LEADTIME: 4 Months PRODUCTION LEADTIME: 24 Months

CONTRACT DATES: FY 2009: Apr-09 FY 2010: \_\_\_\_\_ FY 2011: Feb-11

DELIVERY DATE: FY 2009: Dec-10 FY 2010: \_\_\_\_\_ FY 2011: Jan-13

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (19) kits			2		16		1														19
FY 2009 (19) kits							14		5												19
FY 2010 ( ) kits																					
FY 2011 (20) kits											20										20
FY 2012 (3) kits													3								3
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete (72) kits																					72
TOTAL			2		16		15		5		20		3								72
																					133

NOTES:

- 1) Quantities refer to Radar Deliveries.
- 2) No \$ shown, since Installs for Radar are "O" Level install.

Delivery Schedule (Radar Config B)

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In			1	1		3	2	7	4	1	3	7	4	1	4					5	8	7
Out			1	1		3	2	7	4	1	3	7	4	1	4					5	8	7

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In		3							72	133
Out		3							72	133

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: F/A-18A E/F MODIFICATION TITLE: AESA/AN-APG-65/AN-APG-73 (OSIP 002-07) (ECP-6279)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: ONE KIT INSTALLED BY CONTRACTOR FOR VALVER, OTHER INSTALLS FIELD TEAMS

ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2009: Apr-09 FY 2010: \_\_\_\_\_ FY 2011: Feb-11

DELIVERY DATE: FY 2009: Dec-11 FY 2010: \_\_\_\_\_ FY 2011: Apr-12

(\$ in Millions)

20

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (11) kits							10	2.9	1	0.3									11	3.2	
FY 2009 (11) kits									11	3.3									11	3.3	
FY 2010 ( ) kits																					
FY 2011 (26) kits									16	6.9	10	1.0							26	7.9	
FY 2012 (5) kits											5	1.6							5	1.6	
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete (115) kits																		115	54.8	115	54.8
TOTAL							10	2.9	28	10.5	15	2.5						115	54.8	168	70.7

NOTE: Quantities and costs refer to ECP6279.

The APG-79 Retrofit Efforts require a series of sequential actions with a total lead time of 50 months. The installation process begins with the delivery of the radars. The radars have a nominal 24 month lead time to delivery. ECP 6279 is dependent upon the delivery of the radars. Once the radars deliver, then there is a nominal 12 month lead time from the radar delivery to radar conversion (ECP 6279) which is required to convert the radars that have been removed from the aircraft from a Configuration A to a Configuration B radar (this occurs in parallel with EcOP 6038). ECP 6038 has a nominal 27 month lead time from radar delivery to actual induction of the aircraft for receipt of the converted Configuration B radars.

Installation Schedule (Kit Modules WRAs - ECP-6279)

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In									2	2	3	3	6	8	7	7	4	4	5	2
Out									2	2	3	3	6	8	7	7	4	4	5	2

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In									115	168
Out									115	168

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: F/A-18A E/F MODIFICATION TITLE: AESA/AN-APG-65/AN-APG-73 (OSIP 002-07) (ECP-6038)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: ONE KIT INSTALLED BY CONTRACTOR FOR VALVER, OTHER INSTALLS FIELD TEAMS

ADMINISTRATIVE LEADTIME: 5 Months PRODUCTION LEADTIME: Various Months

CONTRACT DATES: FY 2009: Dec-09 FY 2010: \_\_\_\_\_ FY 2011: Mar-11

DELIVERY DATE: FY 2009: Jan-13 FY 2010: \_\_\_\_\_ FY 2011: Apr-13

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (5) kits									3	1.3	2	0.8								5	2.1
FY 2009 (6) kits											6	2.4								6	2.4
FY 2010 ( ) kits																					
FY 2011 (29) kits											17	6.8	12	5.2						29	12.0
FY 2012 (3) kits													3	1.3						3	1.3
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete (90) kits																		90	31.6	90	31.6
TOTAL									3	1.3	25	10.0	15	6.6			90	31.6	133	49.4	

NOTES:

The APG-79 Retrofit Efforts require a series of sequential actions with a total lead time of 50 months. The installation process begins with the delivery of the radars. The radars have a nominal 24 month lead time to delivery. ECP 6279 is dependent upon the delivery of the radars. Once the radars deliver, then there is a nominal 12 month lead time from the radar delivery to radar conversion (ECP 6279) which is required to convert the radars that have been removed from the aircraft from a Configuration A to a Configuration B radar (this occurs in parallel with EcOP 6038). ECP 6038 has a nominal 27 month lead time from radar delivery to actual induction of the aircraft for receipt of the converted Configuration B radars.

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In															1	2	6	6	6	7	
Out															1	2	6	6	6	7	

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In	4	4	4	3					90	133
Out	4	4	4	3					90	133

Exhibit P-3a Individual Modification

MODIFICATION TITLE: EW Unique (OSIP 021-08)

MODELS OF SYSTEMS AFFECTED: F/A-18C/D ALR-67(V)3 Retrofit TYPE MODIFICATION: Capability Improvements

DESCRIPTION/JUSTIFICATION:

Purchase additional ALR-67(V)3 RWR systems to be used to retrofit F/A-18C/D platforms. These systems will replace existing ALR-67(V)2 systems. This will significantly increase aircrew survivability in the legacy F/A-18. The repetitive obsolescence issues of the V(2) system is a consistent issue in the F/A-18 community. The F/A-18 is flying missions in direct support of troops on the ground in Iraq and Afghanistan. The RWR ALR-67(V)3 is the threat recognition or SA for the aircrew and is vital to their own safe as well as providing the opportunity to support the ground troops. If not funded, there would be a greater risk of lost aircraft and aircrew in a hostile environment, and loss of ability to provide close air support for ground missions and possible Blue on Blue Fratricide.

Intrepid Tiger Pod (\$4.9M FY09 OCO)- Ffunds refurbishment and technology upgrade of 20 AN/AAQ-228(V)1 Intrepid Tiger electronic warfare pods currently in use in OCO by USMC F/A-18 and AV-8B squadrons. Pods were fielded in 2006 as a Rapid Deployment Capability funded by Joint Improvised Explosive Device Defeat Organization (JIEDDO). High Operations Tempo (OPTEMPO) and harsh operating environment necessitate the refurbishment and tech refresh of all Spiral 1 Intrepid Tiger electronic warfare contingency pods. Threat changes and adaptation require redesigned pod capability to improve performance to keep the capability combat effective. Commercial Off the Shelf (COTS) obsolescence will negatively impact pod repair and availability without component upgrade.

FY 2010 includes \$32.3M OCO Supplemental Request for ALR-67(V)3. FY 2010 total does not reflect decrease of \$67.3M from pending Above Threshold Reprogramming (FY 10-02-R) request for Helo Survivability. FY 2011 OCO Supplemental Request of \$35.0M for ALR-67(V)3. Aggregate FY 2010 and 2011 ALR-67 OCO requests restore funds used in ATR (FY 10-02-R).

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
ALR 67(V)3					64	53.4														64	53.4
FY2011 OCO ALR 67(V)3							17	15.5												17	15.5
Installation Kits N/R																					
Intrepid Tiger Pods NRE				0.4																	0.4
Installation Equipment																					
ALR 67(V)3					64	53.4														64	53.4
FY2011 OCO ALR 67(V)3							17	15.5												17	15.5
Installation Equipment N/R																					
Engineering Change Orders																					
Intrepid Tiger Pod				1.4																	1.4
Data																					
Training Equipment																					
Support Equipment																					
Intrepid Tiger Pods NRE				3.1																	3.1
ILS																					
Other Support																					
Interim Contractor Support																					
Installation Cost						21.4	36		28											64	21.4
FY 2011 OCO Installation Cost								4.0	17											17	4.0
Total Procurement				4.9		128.3		35.0													168.2

Notes:

1. Totals may not add due to rounding.
2. FY10 ALR67(V)3 Qty's will decrease due to a \$67.3M Helo Survivability Reprogramming.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: F/A-18C/D ALR-67(V)3 Retrofit MODIFICATION TITLE: EW Unquie (OSIP 021-08)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Modification

ADMINISTRATIVE LEADTIME: 5 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: Mar-10 FY 2011: Mar-11

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: Mar-11 FY 2011: Mar-12

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY ( ) kits																					
FY 2009 ( ) kits																					
FY 2010 (64) kits						21.4		36		28										64	21.4
FY 2011 (17) kits OCO									4.0	17										17	4.0
FY 2012 ( ) kits																					
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete ( ) kits																					
<b>TOTAL</b>						<b>21.4</b>		<b>36</b>	<b>4.0</b>	<b>45</b>										<b>81</b>	<b>25.4</b>

Installation Schedule

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In										12	12	12	12	12	12	12	9				
Out												12	12	12	12	12	9				

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										81
Out										81

Exhibit P-3a Individual Modification

MODIFICATION TITLE: Network Centric Operations: OSIP 001-10

MODELS OF SYSTEMS AFFECTED: F/A-18-E/F Block 2 TYPE MODIFICATION: Avionics Upgrade

DESCRIPTION/JUSTIFICATION:

OSIP 001-10 will implement a common configuration and capability across all F/A-18E/F Block 2 aircraft. Improve platform performance in all mission areas including SuW, Air-to-Air, Strike, Suppression of Enemy Air Defenses (SEAD)/Defensive Electronic Counter Measurements(DECMD) and interoperability which will result in a reduction of a number of aircraft and weapons to execute SuW and Strike missions in most stressing scenarios, decrease in time on target to execute SuW, SEAD/DECMD missions in MCO scenarios and will improve survivability due to decreased time on target  
 The F/A-18 program has developed and integrated multiple systems to be installed in Lot 26 and subsequent Block 2 aircraft. The integration of the systems: Distributed targeting Processor and Mass Storage Unit, Digital Memory Unit, Advanced Navigation, Solid State Recorder, Digital Cueing Systems and G4 Processor, and Interoperability modifications due to MIDS Lvt and DCS radio Mil-Std will greatly improve the weapon systems threat capability. This OSIP will implement the required architecture in support of N88 NAVPLAN 2030. The ANAV retrofit implements an advanced Inertial Navigation System/Global Positioning System (INS/GPS) that increases platform navigation accuracy and smart weapon targeting solutions. This retrofit will require ECP and Technical Directive development, Installation kit procurement and management, publication and drawing updates, engineering support and CKA logistics support.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

DMD, ANAV, DCR, G4/OPR are fully developed and delivered with Lot 30 and above in FY 2008. Distributed Targeting Processor, PR09 funded issue is currently under development and planned to be completed in FY 2011 with IOC in FY 2012. ECP's included: ANAV xxx1, DMD: ECP xxx2, DTP/MSU: ECP xxx3, DCR: ECP xxx4, G4/OPR: ECP xxx5, Ussr: ECP 6318 and Interoperability: ECP: xxx7

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
A2 Kit (Tray Assy.)					36	0.2	37	0.2	32	0.7	36	0.7	36	0.7	19	0.4			196	2.9	
A3 Kit (Couplings/HW)					36	0.1	37	0.1	32	0.2	36	0.2	36	0.2	19	0.1			196	0.9	
USSR A-Kit					17	0.9	50	3.2	40	2.3	25	2.1	28	1.8					160	10.3	
DTP A Kit (LOTS 30 ABOVE)							30	14.3	34	13.5	66	22.9	45	18.7					175	69.4	
DTP A KITS (LOTS 26-29)									30	13.0	20	8.5	34	15.8	59	24.4	34	14.1	177	75.8	
DMD A Kit (LOTS 26-29)									30	9.5	20	9.8	35	17.8	30	15.5	62	3.2	177	55.8	
Installation Kits N/R						8.5		7.6		7.1		0.4								23.5	
Installation Equipment																					
ANAV (WRA)					36	4.7	37	4.3	32	4.6	36	5.1	36	5.3	19	2.8			196	26.9	
ALR 67(V)3 RWR G4					20	4.2	21	4.2	7	1.4									48	9.8	
ALR 67(V)3 OPR/DCR					28	4.2	28	4.3	28	4.3									84	12.8	
USSR Operational RMMs					17	0.1	50	0.5	40	0.4	25	0.3	28	0.3					160	1.7	
DCS									368	39.6	77	7.7	61	6.2					506	53.5	
Installation Equipment N/R																					
Engineering Change Orders																					
Advanced Navigation (ANAV): ECPxxx1						6.4														6.4	
Digital Memory Unit (DMD): ECPxxx2																					
Distributed Targeting Processor and Mass Storage Unit (DTP/MSU): ECPxxx3						1.2														1.2	
Updated Solid State Recorder (USSR): ECPxxx3																					
Digital Cueing System (OPR/DCR): ECPxxx4																					
G4 Processor (RWR G4): ECPxxx5																					
Data								0.3		0.3		0.3		0.3		0.2				1.3	
Training Equipment						0.4														0.4	
Support Equipment (2 Bore Sight)							0.5		0.7		0.5		0.5		0.3					2.5	
ILS						0.3		3.3		0.8		0.8		0.7		0.3				6.2	
Other Support						0.5		3.9		6.3		6.4		13.8		3.7				34.6	
Interim Contractor Support																					
Installation Cost								55	0.8	84	0.9	176	2.0	182	2.0	175	2.4	232	4.1	904	12.1
Total Procurement						31.7		47.6		105.3		67.8		84.1		50.1		21.4		407.9	

Notes:

1. Totals may not add due to rounding.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: F/A-18-E/F Block 2 MODIFICATION TITLE: Network Centric Operations: OSIP 002-10 (Avionics Upgrade)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Field Mod Team

ADMINISTRATIVE LEADTIME: Various Months PRODUCTION LEADTIME: Various Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: Various FY 2011: Various

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: Various FY 2011: Various

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL			
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$		
FY 2008 & PY ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 (72) kits							55	0.8	17	0.2										72	1.0	
FY 2011 (117) kits									67	0.7	50	0.5									117	1.2
FY 2012 (166) kits											126	1.5	40	0.5							166	2.0
FY 2013 (167) kits													142	1.5	25	0.3					167	1.8
FY 2014 (178) kits															150	2.0	28	0.5			178	2.5
FY 2015 (108) kits																	108	1.9			108	1.9
To Complete (96) kits																	96	1.7			96	1.7
<b>TOTAL</b>							55	0.8	84	0.9	176	2.0	182	2.0	175	2.4	232	4.1			904	12.1

Note: Install greater than Kit procurement for USSR due to 19 Kits procured previously in OSIP 23-04.

Installation Schedule

ANAV

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In									9	9	9	9	9	9	9	10	8	8	8	8
Out									9	9	9	9	9	9	9	10	8	8	8	8

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In	9	9	9	9	9	9	9	9	19	196
Out	9	9	9	9	9	9	9	9	19	196

DTP

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013						
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4			
In																7	8	7	8	16	16	16	16
Out																7	8	7	8	16	16	16	16

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In	22	22	22	20	20	20	20	19	93	352
Out	22	22	22	20	20	20	20	19	93	352

DMD

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In																		7	7	8	8
Out																		7	7	8	8

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In	5	5	5	5	8	9	9	9	92	177
Out	5	5	5	5	8	9	9	9	92	177

USSR

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In										5	5	5	4	5	4	4	4	12	13	12	13
Out										5	5	5	4	5	4	4	4	12	13	12	13

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In	10	10	10	10	10	5	5	5	28	179
Out	10	10	10	10	10	5	5	5	28	179

Note: Install greater than Kit procurement for USSR due to 19 Kits procured previously in OSIP 23-04.

Exhibit P-3a Individual Modification

MODIFICATION TITLE: EA-18G Unique OSIP (011-10)

MODELS OF SYSTEMS AFFECTED: EA-18G TYPE MODIFICATION: SAFETY /RELIABILITY/IMPROVEMENT

DESCRIPTION/JUSTIFICATION:

This OSIP funds EA-18G unique corrections, modifications, and enhancements. Funds are required to retrofit unique Weapons Replaceable Assemblies (WRAs) and Shop Replaceable Assemblies (SRAs). Funding also supports maintenance of a common configuration. Initial effort is centered on the integration and fielding of an Integrated Broadcast Service (IBS) receiver, replacing the Multi-mission Advanced Tactical Terminal (MATT) system.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

MATT Replacement NRE in FY08-10. Aircraft production kit buys in FY11-12 (32 A/C) with installs in FY12-13 (32 A/C). Retrofit kit buys in FY11-13 (53 A/C) with installations in FY12-14.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
IBS Receiver Replacement Kit							18	0.5	18	0.5	17	0.5							53	1.6	
Installation Kits N/R					2.5																2.5
Installation Equipment																					
IBS Receiver Equip							18	2.4	18	2.6	17	2.6								53	7.6
Installation Equipment N/R																					
Engineering Change Orders							4.2		4.9		4.9		7.0		4.8						25.8
Data																					
Training Equipment																					
Support Equipment																					
ILS							1.0		1.4		1.4		0.5		0.6						4.9
Other Support																					
Interim Contractor Support																					
Installation Cost							18	0.6	18	0.6	17	0.6								53	1.9
Total Procurement						2.5	8.8		10.0		10.1		7.5		5.4						44.3

Notes:

1. Totals may not add due to rounding.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: EA-18G MODIFICATION TITLE: EA-18G Unique OSIP (011-10)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: FIELD MOD TEAMS

ADMINISTRATIVE LEADTIME: \_\_\_\_\_ Months PRODUCTION LEADTIME: \_\_\_\_\_ Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: Nov-10

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: Apr-11

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY ( ) kits																					
FY 2009 ( ) kits																					
FY 2010 ( ) kits																					
FY 2011 (18) kits								18	0.6											18	0.6
FY 2012 (18) kits									18	0.6										18	0.6
FY 2013 (17) kits											17	0.6								17	0.6
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete ( ) kits																					
<b>TOTAL</b>								18	0.6	18	0.6	17	0.6							53	1.9

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In											9	9			9	9			9	8	
Out											7	9	2		7	9	2		7	9	

  

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										53
Out		1								53

Exhibit P-40, BUDGET ITEM JUSTIFICATION										DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY <b>Aircraft Procurement, Navy / APN5 Aircraft Modifications</b>										P-1 ITEM NOMENCLATURE <b>052600, H-46 SERIES</b>			
Program Element for Code B Items:										Other Related Program Elements			
	PRIOR YEARS	ID CODE	FY 2009	FY 2010	BASE FY 2011	OCO FY 2011	Total FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total
QUANTITY													
COST (In Millions)	562.0	A	43.8	52.7	17.7		17.7	29.0	3.3	3.2	3.2		714.9

**DESCRIPTION:**

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 FY 2011 is to keep the H-46 a viable platform until a replacement aircraft can be fielded. H-46 helicopters are used by the Marine Corps for troop transport and search and rescue missions. USMC inventory: total (159) aircraft: (130) CH-46E active + (3) HH-46E + (26) CH-46E reserves aircraft. Original design service life was 10,000 hours. It was subsequently extended to 12,500 hours on 18 Dec 1992 and to 15,000 hours on 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	FY 2009	FY 2010	BASE FY 2011	OCO FY 2011	Total FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total
025-97 SAFETY IMPROVEMENT	79.5		1.2									80.7
011-05 LIGHTWEIGHT COCKPIT SEATS	15.9		0.4	0.4		0.4						16.7
018-07 H-46 GASSP	69.7	43.8	34.8	17.3		17.3	29.0	3.3	3.2	3.2	0.0	204.3
017-08 AVIONICS UPGRADE	25.3		16.3									41.5
INACTIVE OSIPS	371.7											371.7
<b>TOTAL</b>	<b>562.0</b>	<b>43.8</b>	<b>52.7</b>	<b>17.7</b>	<b>0.0</b>	<b>17.7</b>	<b>29.0</b>	<b>3.3</b>	<b>3.2</b>	<b>3.2</b>	<b>0.0</b>	<b>714.9</b>

**Notes:**

1. Totals may not add due to rounding.
2. Reserve funding included in total.

Exhibit P-3a

MODIFICATION TITLE: LIGHTWEIGHT COCKPIT SEATS (OSIP 011-05)

MODELS OF SYSTEMS AFFECTED: H-46 SERIES 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 replacement of pilot, co-pilot, crew chief, and aerial observer seats with a non-developmental military qualified/certified, armored, in-production seat is low risk, and will eliminate the need for lengthy nonrecurring engineering and testing. Modern seats would recover up to 250 pounds of payload and provide the latest in survivability technology. Reducing the empty weight of the aircraft is an extremely viable means of restoring mission effectiveness. The seats will be installed on 164 CH-46E aircraft (140 active + 24 reserve) and 1 trainer.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Nonrecurring engineering for pilot/co-pilot seats is complete. The Critical Design Review (CDR) was conducted 08 Dec 2005. A firm fixed price contract for pilot/co-pilot armored seats awarded 06 Jan 2006, with deliveries starting Jun 2006 and completed Nov 2008. Nonrecurring engineering for aerial observer and crew chief seats was completed in FY 08, followed by production contract award, Aug 2008. Production crew chief and aerial observer seats are being delivered and production installs are on going at both Depots and with field mod teams.

FINANCIAL PLAN: (TOA, \$ IN MILLIONS)

FISCAL YEAR	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
RDT&E																					
PROCUREMENT																					
INSTALLATION KITS																					
AERIAL OBSERVER SEAT KIT (A) SUPP	164	0.4																		164	0.4
CREW CHIEF SEAT KIT (A) SUPP	164	0.4																		164	0.4
INSTALLATION KITS N/R		1.4																			1.4
INSTALL EQUIPMENT																					
SEATS EQUIP	468	8.5																		468	8.5
AERIAL OBSERVER SEATS (P KIT) SUP	164	1.0																		164	1.0
CREW CHIEF EQUIP SEATS (P KIT) SUP	164	1.0																		164	1.0
INSTALL EQUIPMENT N/R																					
ECO																					
INSTALLATION HARDWARE CHANGES		1.2																			1.2
DATA		*																			*
TRAINING EQUIP	3	0.1																		3	0.1
SUPPORT EQUIP		0.2																			0.2
ILS		*																			*
OTHER SUPPORT		0.7																			0.7
INTERIM CONTRACTOR SUPPORT																					
INSTALLATION COST		1.0	59		54	0.4	52	0.4												165	1.8
<b>TOTAL PROCUREMENT</b>		<b>15.9</b>				<b>0.4</b>		<b>0.4</b>													<b>16.7</b>

Notes:

1. Asterisk (\*) indicates amount value less than \$51K
2. Totals may not add due to rounding.
3. FY 2009 installs (qty of 59 each, includes one trainer install) are funded with FY 2007 supplemental funds and installed in FY 2009.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: H-46 SERIES MODIFICATION TITLE: LIGHTWEIGHT COCKPIT SEATS (OSIP 011-05)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor FMT/Depot Level (Concurrent with Depot Level Maintenance)

ADMINISTRATIVE LEADTIME: N/A Months PRODUCTION LEADTIME: N/A Months

CONTRACT DATES: FY 2009 \_\_\_\_\_ FY 2010 \_\_\_\_\_ FY 2011 \_\_\_\_\_

DELIVERY DATE: FY 2009 \_\_\_\_\_ FY 2010 \_\_\_\_\_ FY 2011 \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
PRIOR YEAR (165) kits		1.0	59		54	0.4	52	0.4												165	1.8
FY 2009 () kits																					
FY 2010 () kits																					
FY 2011 () kits																					
FY 2012 () kits																					
FY 2013 () kits																					
FY 2014 () kits																					
FY 2015 () kits																					
TO COMPLETE () KITS																					
Total		1.0	59		54	0.4	52	0.4												165	1.8

Note: FY 2009 installations are funded with FY 2007 supplemental funds. FY 2010 and FY 2011 installations are for kits that were procured with FY 2007 supplemental funds.

Installation Schedule

	FY 2008 & PRIOR	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In	0	15	15	15	14	12	14	14	14	12	14	14	12									
Out	0		15	15	15	14	12	14	14	14	12	14	14	12								

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In									0	165
Out									0	165

Exhibit P-3a

MODIFICATION TITLE: H-46 GASSP( OSIP 018-07 )

MODELS OF SYSTEMS AFFECTED: H-46 SERIES TYPE MODIFICATION: SAFETY (HONA Category A)

DESCRIPTION / JUSTIFICATION: Provides targeted initiatives to remedy the top age-related safety and reliability issues engineered to address the heavy wear-and-tear effects of high-tempo Overseas Contingency Operations (OCO) ( 400% of planned utilization rate) CH-46 airframes and subsystems in order to ensure safe, reliable and effective aircraft operation throughout the USMC Medium Lift transition period.

This OSIP will execute multiple ECPs, grouped in three sequential Block upgrades (A,B,C). Elements within each Block have been grouped by similar complexities and lead items .

Specific ECPs address :

1. Redesigned and modernized wiring harnesses in airframe areas subject to high levels of heat, sand contamination and/or vibration.
2. Redesigned and modernized hydraulics subsystems using common or COTS components.
3. Redesigned and improved portions of airframe structure subject to high levels of fatigue, corrosion and other stress.
4. Improved and modernized critical avionics, aircraft survival equipment (ASE) and other aircraft systems to resolve obsolescence, reliability or safety issues using common, previously qualified or COTS solutions.
5. Infrared Suppression System for the Aircraft.
6. New Ramp Gun Mounts.
7. Wire Strike Protection system.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: NRE efforts for Block A kits began in FY07 . Successful Validation of Block A kits completed in 1st QTR FY08 , initial Block A kit procurements in 2nd Qtr FY-08 , and production installs in 4th QTR FY08. Block B efforts regain NRE in FY 08 followed by VAL/VER installation in 4th QTR 09. Initial production installs are planned for 2nd QTR FY10. Block C changes are in design /integration engineering with VAL/VER installs planned for 3rd QTR FY10.

FINANCIAL PLAN: (TOA, \$ IN MILLIONS)

FISCAL YEAR	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
RDT&E																					
PROCUREMENT																					
INSTALLATION KITS																					
GASSP BLOCK A (A-KIT)	371	14.1																		371	14.1
GASSP BLOCK B (A-KIT)			26	1.7	30	0.8	29	0.8												85	3.3
GASSP BLOCK C (A-KIT)			124	12.2	138	8.5	26	1.9												288	22.6
GASSP IR (A-KIT)	114	1.0																		114	1.0
INSTALLATION KITS N/R		7.3		0.3																	7.7
INSTALL EQUIPMENT	2,517	19.9	937	9.9	637	15.3	282	5.0	236	3.6										4,609	53.7
INSTALL EQUIPMENT IR (OCO)			32	9.5																32	9.5
INSTALL EQUIPMENT N/R		15.4																			15.4
ECO									7.2												7.2
DATA		0.3		0.7		0.7		0.5	3.0		*										5.2
TRAINING EQUIP	4	0.2	7	0.8	5	0.3															16
SUPPORT EQUIP		1.6		4.7		0.4			2.9												9.6
ILS		0.8		0.3		0.3		0.4	0.4												2.2
OTHER SUPPORT		8.7		2.0		3.9		4.3	11.0		3.3		3.2		3.2						39.7
INTERIM CONTRACTOR SUPPORT																					
INSTALLATION COST	31	0.4	131	1.7	411	4.5	374	4.4	116	0.9										1,063	11.8
<b>TOTAL PROCUREMENT</b>		<b>69.7</b>		<b>43.8</b>		<b>34.8</b>		<b>17.3</b>		<b>29.0</b>		<b>3.3</b>		<b>3.2</b>		<b>3.2</b>					<b>204.3</b>

Notes:

1. Totals may not add due to rounding.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: H-46 SERIES MODIFICATION TITLE: H-46 GASSP (OSIP 18-07) (BLOCK A INSTALLS)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor FMT & Concurrent with Depot Level Maintenance

ADMINISTRATIVE LEADTIME: N/A Months PRODUCTION LEADTIME: N/A Months

CONTRACT DATES: FY 2009 \_\_\_\_\_ FY 2010 \_\_\_\_\_ FY 2011 \_\_\_\_\_

DELIVERY DATE: FY 2009 \_\_\_\_\_ FY 2010 \_\_\_\_\_ FY 2011 \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
PRIOR YEARS (374) kits	30	0.3	93	1.3	174	2.2	77	1.7												374	5.5
FY 2009 () kits																					
FY 2010 () kits																					
FY 2011 () kits																					
FY 2012 () kits																					
FY 2013 () kits																					
FY 2014 () kits																					
FY 2015 () kits																					
TO COMPLETE () kits																					
Total	30	0.3	93	1.3	174	2.2	77	1.7												374	5.5

Note:  
 QTY of 374 GASSP Block A Installs = 119 each shipsets + 1 trainer for WSPS, 126 each shipsets + 1 trainer for EHP and 126 each shipsets + 1 trainer for Electrical Block Upgrade.

Installation Schedule

	FY 2008 & PRIOR	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In	30	21	24	24	24	44	44	43	43	43	34											
Out	12	18	21	24	24	44	44	43	43	43	34											

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In									0	374
Out									0	374

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: H-46 SERIES MODIFICATION TITLE: GASSP (OSIP 18-07) (BLOCK B INSTALLS)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor FMI & Concurrent with Depot Level Maintenance

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 2 Months

CONTRACT DATES: FY 2009 May 09 FY 2010 Oct-09 FY 2011 Oct-10

DELIVERY DATE: FY 2009 Jul 09 FY 2010 Dec-09 FY 2011 Dec-10

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
PRIOR YEARS ( ) kits																					
FY 2009 (29) kits			12	0.1	17	0.2														29	0.3
FY 2010 (30) kits					25	0.2	5	*												30	0.3
FY 2011 (29) kits							29	0.3												29	0.3
FY 2012 ( ) kits																					
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
TO COMPLETE ( ) kits																					
Total			12	0.1	42	0.4	34	0.3											88	0.8	

QTY of 88 GASSP Block B Installs = 85 each shipsets + 3 trainers for AIMS Enhancements with HTA

Installation Schedule

FY 2008 & PRIOR	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In				12	10	11	10	11	10	11	10	3								
Out					12	10	11	10	11	10	11	10	3							

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In									0	88
Out									0	88

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: H-46 SERIES MODIFICATION TITLE: GASSP (OSIP 18-07) (BLOCK C INSTALLS)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor FMI & Concurrent with Depot Level Maintenance

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 9 Months

CONTRACT DATES: FY 2009 Oct-08 FY 2010 Oct-09 FY 2011 Oct-10

DELIVERY DATE: FY 2009 Jul-09 FY 2010 Jul-10 FY 2011 Jul-11

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
PRIOR YEARS ( ) kits																					
FY 2009 (128) kits			2	*	60	0.9	66	0.7												128	1.6
FY 2010 (143) kits							83	0.9	60	0.4										143	1.3
FY 2011 (26) kits									26	0.2										26	0.2
FY 2012 ( ) kits																					
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
TO COMPLETE ( ) kits																					
Total			2	*	60	0.9	149	1.6	86	0.6										297	3.1

QTY of 297 GASSP Block C Installs = 48 each shipsets + 2 trainers for MDP & OH, 48 each shipsets + 2 trainer for ICS, and 48 each shipsets + 2 trainer for VOR/ILS, and 48 each shipsets + 2 trainers for Engine Gauges, and 48 each shipsets + 1 trainer for PTU , and 48 each shipsets External cargo hook.

Installation Schedule

FY 2008 & PRIOR	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In				2				30	30	37	37	38	30	30	26					
Out				2				30	30	37	37	37	38	30	30	26				

	2014				2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In									0	297
Out									0	297

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: H-46 SERIES MODIFICATION TITLE: GASSP (OSIP 18-07) (IR SUPPRESSION)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor FMI & Concurrent with Depot Level Maintenance

ADMINISTRATIVE LEADTIME: N/A Months PRODUCTION LEADTIME: N/A Months

CONTRACT DATES: FY 2009 \_\_\_\_\_ FY 2010 \_\_\_\_\_ FY 2011 \_\_\_\_\_

DELIVERY DATE: FY 2009 \_\_\_\_\_ FY 2010 \_\_\_\_\_ FY 2011 \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
PRIOR YEARS (114) kits		0.1	1		65	0.3	48	0.2												114	0.6
FY 2009 () kits																					
FY 2010 () kits																					
FY 2011 () kits																					
FY 2012 () kits																					
FY 2013 () kits																					
FY 2014 () kits																					
FY 2015 () kits																					
TO COMPLETE () kits																					
Total		0.058	1		65	0.3	48	0.2												114	0.6

Note: FY07 Supplemental funding provided for VAL/VER installation in FY09.

Note: Kits installed in FY2010 and FY2011 procured with FY07 Supplemental funding.

Installation Schedule

FY 2008 & PRIOR	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In		1			11	18	18	18	12	12	12	12									
Out		1			11	18	18	18	12	12	12	12									

	2014				2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In									0	114
Out									0	114

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: H-46 SERIES MODIFICATION TITLE: GASSP (OSIP 18-07) (INSTALL EQUIPMENT P-KITS)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor FMI & Concurrent with Depot Level Maintenance

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2009 Oct 08 FY 2010 \_\_\_\_\_ FY 2011 \_\_\_\_\_

DELIVERY DATE: FY 2009 Mar 09 FY 2010 \_\_\_\_\_ FY 2011 \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
PRIOR YEARS (133) kits	1	*	23	0.3	70	0.6	39	0.4												133	1.3
FY 2009 (57) kits							27	0.2	30	0.3										57	0.5
FY 2010 () kits																					
FY 2011 () kits																					
FY 2012 () kits																					
FY 2013 () kits																					
FY 2014 () kits																					
FY 2015 () kits																					
TO COMPLETE () kits																					
Total	1	*	23	0.3	70	0.6	66	0.6	30	0.3										190	1.8

Qty of (133) kits bought with Supplemental funds in Prior Years.

QTY of 190 INSTALL EQUIPMENT = 70 each shipsets + 1 trainers for Sync Shaft Fairings, 62 each shipsets for APU Deck Upgrade, and 57 each shipsets for Oil Tank & Cradle.

Installation Schedule

FY 2008 & PRIOR	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In	1		7	8	8	17	18	17	18	16	17	16	17	15	15						
Out	1			7	8	8	17	18	17	18	16	17	16	17	15	15					

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In									0	190
Out									0	190

Exhibit P-40, BUDGET ITEM JUSTIFICATION								DATE: February 2010					
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/APN-5 Aircraft Modifications							P-1 ITEM NOMENCLATURE 052700, AH-1W SERIES						
Program Element for Code B Items:							Other Related Program Elements						
	Prior Years	ID Code	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total
QTY		A											
COST (In Millions)	530.2	A	6.3	33.0	11.0	35.5	46.5	14.7	1.4	11.0	0.0	229.5	872.6
<p>DESCRIPTION: This line item funds modifications to the AH-1W aircraft. In FY11 there are 152 AH-1W's. The AH-1W is a tandem seat, two place attack helicopter. The armament of the AH-1W includes the SIDEWINDER, HELLFIRE, and TOW missile systems, chin-mounted 20mm turret gun, and a wide variety of forward firing and gravity released external stores. The overall goal of the modifications budgeted in FY 2011 is to eliminate safety hazards, improve survivability, fulfill operational requirements, remedy obsolescence issues and maintain significant mission capability. Additionally, the H-1 will continue to upgrade the applicable Aircraft sensor and avionics systems and subsystems as well as the rocket delivery system which includes the Advance Precision Kill Weapons System (APKWS). The platform will continue to fulfill the operational requirements 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 system's laser ranging and designating system. The specific modifications budgeted and programmed are:</p>													
(TOA, \$ in Millions)													
OSIP No.	Description	Prior Years	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total
008-90	AH-1W NIGHT TARGETING	339.1	0.0	27.8	2.8	35.5	38.3	5.9	0.5	6.9	0.0	37.7	456.2
016-98	AH-1 APR-39 A(V)2	79.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	79.3
013-00	AH-1 A/C & T700 ENG	91.2	0.0	0.0	8.2	0.0	8.2	8.8	0.9	4.1	0.0	113.3	226.6
002-03	AH-1 20MM LINKLESS FEED INACTIVE OSIPs	11.6	5.9	5.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	78.5	101.2
		9.3											9.3
<b>Total</b>		<b>530.2</b>	<b>6.3</b>	<b>33.0</b>	<b>11.0</b>	<b>35.5</b>	<b>46.5</b>	<b>14.7</b>	<b>1.4</b>	<b>11.0</b>	<b>0.0</b>	<b>229.5</b>	<b>872.6</b>
<p>Note: Totals may not add due to rounding.</p>													

Exhibit P-3a

Individual Modification

MODIFICATION TITLE: AH-1W NIGHT TARGETING (OSIP 008-90)

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. The 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/Heads Up Display (HUD). Additional NTS Upgrades (NTSU) will be made which will include WRA modifications to improve reliability, maintainability, and systems stabilization. The NTSU Digital Video Recorder (DVR) and Mission Data Loader (MDL) will be modified to improve functionality and be incorporated into a single WRA.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The AH-1W Fleet has been fully outfitted with the Night Targeting System. The NTSU is required for the AH-1W to improve system performance to meet aircraft service life expectancy through 2021. 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 bore sighting operations of internal components, and continue to look at reliability maintainability and stabilization improvements. The NTSU has completed Developmental Test and Operational Test and were found to be operationally effective and operationally suitable. The systems are currently in production.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
A/F Kits	128	37.5																		128	37.5
Accelerated Kits	5	2.0																		5	2.0
NTS Kits	132	129.4																		132	129.4
NTSU Kits	13	12.2			18	18.0	2	2.0	5	5.1			6	6.1			20	20.7	64	64.1	
NTSU Kits-OCO							36	33.1												36	33.1
Tow Buffer Kits	202	1.8																		202	1.8
Installation Kits N/R		23.7				1.0		0.2		0.2				0.2				1.0			26.3
Installation Kits N/R-OCO								1.0													1.0
Installation Equipment																					
ICRS GFE	41	1.8																		41	1.8
Misc. GFE (Repair/Replace)	1	5.5																		1	5.5
NTS GFE	79	1.5																		79	1.5
VCRS (Digital Video Recorder)	137	3.6																		137	3.6
Installation Equipment N/R		2.2				1.6		0.2		0.2				0.2				1.7			6.1
Installation Equipment N/R-OCO								0.7													0.7
Engineering Change Orders		7.5				0.6		0.1		0.1				0.1				1.0			9.4
Engineering Change Orders-OCO								0.3													0.3
Data		1.5				0.4		0.1		0.1				0.1				1.7			3.9
Data-OCO								0.1													0.1
Training Equipment	4	4.5			2	3.2											2	2.8	8		10.5
Support Equipment	1	15.1																		1	15.1
ILS		15.1				1.2												4.0			20.3
Other Support		29.2				1.0		0.2		0.2		0.5		0.2				3.4			34.7
Other SupportOCO								0.3													0.3
Interim Contractor Support						0.7												1.5			2.2
Installation Cost	128	45.1																		128	45.1
<b>Total Procurement</b>		<b>339.1</b>				<b>27.8</b>		<b>38.3</b>		<b>5.9</b>		<b>0.5</b>		<b>6.9</b>				<b>37.7</b>			<b>456.2</b>

Exhibit P-3a Individual Modification

MODIFICATION TITLE: AH-1 A/C & T700 ENG (OSIP 013-00)

MODELS OF SYSTEMS AFFECTED: AH-1W/AH-1Z TYPE MODIFICATION: SAFETY

DESCRIPTION/JUSTIFICATION: This program is designed to address safety issues, such as mishap casual factors associated with maintaining an older type model series aircraft. The AH-1W helicopter is powered by two General Electric T700-GE-401 turbo shaft engines which are controlled throughout the normal operating range by the Electrical Control Unit (EECU) and the Hydro-Mechanical Unit (HMU). Safety programs that will be implemented by this OSIP include, but are not limited to: Incorporation of Crash Attenuating Seat Cushions, to reduce the likelihood of back injuries to pilots during hard landing or crashes, will be investigated for modifications. Additional A/C fatigue life issues, including but not limited to rotor blades, stub wings and tail boom technology, will be investigated to improve performance and mitigate aircraft fatigue. Reduction of cockpit vertigo inducing problems will include an update to the Cockpit Control System, Blue Force Tracker (BFT), Heads-up-display (HUD) Upgrades (Helmet Display and Tracker System (HDTs)), Tactile Situation Awareness System (TSAS), upgraded Transponder (CXP), and Tactical Video Data Link (TVDL) system will also be implemented via this OSIP. Ground and Air collision and avoidance systems are mandates that will be integrated. These systems include, but are not limited to Ground Proximity Warning System (GPWS), Terrain Awareness Warning System (TAWS), Mid-Air Conflict Avoidance System (MACAS), Degraded Visual Environment (DVE) systems, Obstacles Avoidance System (OAS), and Military Flight Operations Quality Assurance (MFOQA). Additional reliability and maintenance upgrades, including replacement of existing Thermal Imaging Recorder (TIR) with a Digital Video Recorder, and Improved Multi-Function Display Unit (MFDU) will also be incorporated. Additional safety improvements to increase aircrew safety and cockpit organization such as storage for personal weapons will be implemented

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The TVDL and HDTs Contracts (prior year supplemental funds) were awarded in the 4th quarter of FY09.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
AFC XXX DECU Install Kits	175	0.2																	175	0.2	
ANVIS HUD	6	1.2					20	2.2	16	1.8			10	1.2			48	6.0	100	12.4	
CCU	150	5.0															60	5.6	210	10.6	
DCC XXX 42 & 90 Degree Gearbox	50	0.9																	50	0.9	
Tactical Video Data Link	100	2.4																	100	2.4	
Tearaway Windscreen Covers	1	0.7																	1	0.7	
Installation Kits N/R		0.5																		0.5	
ANVIS HUD		9.5																4.5		13.9	
CCU (APX, DVR)																		32.7		32.7	
Tactical Video Data Link		14.9																7.6		22.5	
Installation Equipment																					
ANVIS HUD	6	3.2					20	5.1	16	4.5			10	2.6			48	1.9	100	17.2	
CCU (APX, DVR)																	60	16.2	60	16.2	
Flat Panel Display	1	0.1																	1	0.1	
PPC XXX Kits	392	5.8																	392	5.8	
Tactical Video Data Link	100	5.2																	100	5.2	
Installation Equipment N/R		10.3																		15.3	
Engineering Change Orders		0.2							0.6		0.2							8.3		9.3	
Data		1.3																		1.3	
Training Equipment		1.5																5.4		6.9	
Support Equipment	40	0.9							0.5								6	1.5	46	2.9	
ILS		3.6							0.4		0.3							3.7		7.9	
Other Support		20.6					0.3		0.6		0.4							5.5		27.4	
Interim Contractor Support		0.1																1.3		1.4	
Installation Cost	105	3.2	15		75		20	0.6	16	0.5			10	0.3			108	8.2	349	12.9	
<b>Total Procurement</b>		<b>91.2</b>					<b>8.2</b>		<b>8.8</b>		<b>0.9</b>		<b>4.1</b>				<b>113.3</b>		<b>226.6</b>		

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: AH-1W/AH-1Z MODIFICATION TITLE: AH-1W/AH-1Z

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: CONTRACTOR FIELD MOD TEAM

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 3 Months

CONTRACT DATES: FY 2009: N/A FY 2010: N/A FY 2011: Oct-10

DELIVERY DATE: FY 2009: N/A FY 2010: N/A FY 2011: Dec-10

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (195) kits	105	3.2	15		75															195	3.2
FY 2009 ( ) kits																					
FY 2010 ( ) kits																					
FY 2011 (20) kits							20	0.6												20	0.6
FY 2012 (16) kits									16	0.5										16	0.5
FY 2013 ( ) kits																					
FY 2014 (10) kits												10	0.3							10	0.3
FY 2015 ( ) kits																					
To Complete (108) kits																	108	8.2		108	8.2
<b>TOTAL</b>	<b>105</b>	<b>3.2</b>	<b>15</b>		<b>75</b>		<b>20</b>	<b>0.6</b>	<b>16</b>	<b>0.5</b>		<b>10</b>	<b>0.3</b>				<b>108</b>	<b>8.2</b>	<b>349</b>	<b>12.9</b>	

Note: FY 2009 installs are funded with FY 2007 Supplemental funds.

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	105				15	15	20	20	20	5	5	5	5	4	4	4	4				
Out	105				15	15	20	20	20	5	5	5	5	4	4	4	4				

  

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In	3	3	2	2					108	349
Out	3	3	2	2					108	349

Exhibit P-3a

Individual Modification

MODIFICATION TITLE: AH-1 20MM LINKLESS FEED (OSIP 002-03)

MODELS OF SYSTEMS AFFECTED: AH-1W/AH-1Z 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 weapons system improvements (F/A-18, Close in Weapon System (CWIS)). 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 (including mounting), 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 warfighter's capability to place more rounds on target by eliminating gun jamming significantly increasing reliability. Additionally, improvements to increase reliability and accuracy of AH-1W/AH-1Z mission (to include Joint Air to Ground Missile (JAGM)) and rocket weapons systems (to include Advanced Precision Kill Weapon System (APKWS)) will be incorporated into this OSIP. Portion of these modifications will be carried forward and must be compatible to the AH-1Z.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The linkless feed initiative was implemented by issuance of a new contract after a full and open competition between several manufacturers of 20MM Weapons Systems. Contract awarded the 1st quarter of FY07. Fleet Introduction is forecasted to commence in the 1st quarter of FY10.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
Installation Kits N/R																					
Installation Equipment																					
Linkless Feed Systems	3	4.1	32	5.0	17	3.5											174	45.0	226	57.6	
Linkless Feed Loaders			27	0.1	22	0.6											177	4.6	226	5.3	
Installation Equipment N/R		0.6																			0.6
Engineering Change Orders		0.1																			0.1
Data		0.1		0.1		0.1												0.4			0.7
Training Equipment		0.1																0.7			0.8
Support Equipment	3	1.7	1	*													42	1.2	46	2.8	
ILS		1.6		0.2		0.5												14.5			16.8
Other Support		3.2		0.6		0.5												12.1			16.4
Interim Contractor Support																					
Installation Cost	5	0.2																		5	0.2
<b>Total Procurement</b>		<b>11.6</b>		<b>5.9</b>		<b>5.2</b>												<b>78.5</b>			<b>101.2</b>

Notes:

- The 226 represented in the quantity total for Linkless Feed Assembly consists of 223 AH-1W/Z's and 3 AH-1W prototypes.
- Linkless Feed System costs are based on N00019-07-D-0011 stepladder pricing with incremental mark up based on cost estimated for FY10. FY10 estimates are inflated due to more accurate material prices and based on actual quotes for received configured material. FY09 prices were based on 2006-2009 estimates for the original contract prior to actual design and production data finalization.
- Installs commenced in the 4th quarter of FY08 and are O-level.
- Asterisk indicates amount less than \$51K

Exhibit P-40, BUDGET ITEM JUSTIFICATION							DATE: February 2010						
APPROPRIATION/BUDGET ACTIVITY							P-1 ITEM NOMENCLATURE						
Aircraft Procurement, Navy/APN-5 Aircraft Modifications							052800, H-53 SERIES						
Program Element for Code B Items:							Other Related Program Elements						
	Prior Years	ID Code	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total
QTY		A											
COST (In Millions)	874.6	A	91.9	232.7	25.9	36.2	62.1	38.0	25.9	30.6	29.2	271.8	1,656.9
<p>DESCRIPTION: This line item funds modifications to the CH-53D/CH-53E/MH-53E aircraft. The aircraft inventories to be modified vary by OSIP, dependant on kit modification production lead-time. 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 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 FY11 was increased communication and navigation, integrated mechanical diagnostics, propulsion, degraded visual environment mitigation, survivability and sustainment initiatives, night vision capability, and fleet operation and safety performance in the H-53 community.</p> <p>The overall goal of the FY2011 Supplemental request is for the following: Engine Reliability Improvement Program (ERIP) (10-05) The T64 ERIP upgrades top age related engine degraders, fatigue limiters and performance degradation on T64 engines. CH-53E Improved Hot Day Performance effort will procure and install modification kits to improve CH-53 performance at ambient temperatures greater than 75 degrees Fahrenheit and pressure altitudes above sea level. Average high temperatures in Baghdad Iraq are greater than 75 degrees Fahrenheit during seven months of the year. Average high temperatures in June, July, August and September are in excess of 100 degrees Fahrenheit. Medivac (15-05) FBCB2 Compliant Blue Force Tracker (BFT) with Moving Map provides a quick, fielded solution to the H-53 fleet, to provide BFT/Moving Map capability to increase cockpit navigational situational awareness, reduce the chance of friendly fire casualties and aircraft loss, and provide higher headquarters the ability to track H-53 flights in areas of reduced radio reception. Funds incorporation of encryption devices on CH-53E and Tactical Operation Centers and provides for joint component and system level testing on BFT II. Sustainment (08-06) Engine Air Particle Separator (EAPS) Improvements: Funds procurement of EAPS Improvement seals to protect engines from Foreign Object Debris (FOD) including dust, dirt and organic debris. Aircraft operating in support of OCO face a significant increase in FOD due to unimproved landing zones. EAPS Improvement Kits for H-53 aircraft will significantly reduce engine vulnerability and allow the H-53 to operate in a wider range of support and OCO. Directed Infrared Countermeasures (DIRCM) (10-08): Currently, the H-53 has only Infrared (IR) detection equipment and rudimentary flares for use as countermeasures. This system will help protect the H-53 which is highly susceptible to IR seeking man pads, the weapon of choice in all current theaters.</p> <p>The specific modifications budgeted and programmed are:</p>													
(TOA, \$ in Millions)													
OSIP No.	Description	Prior Years	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total
012-92	HNVS	179.7	0.7	26.0	1.0		1.0					18.6	225.9
020-97	ATTEN. TRP SEATS	51.1	0.8	1.1	0.3		0.3	0.3	0.3				54.0
007-98	INTEGRATED MECH DIAG	96.4	18.7	14.9	6.5		6.5	3.3	5.3	3.5	3.6	12.8	165.0
009-01	NACELLES	14.9	2.0	2.6								34.0	53.6
021-03	H-53 INTERIOR BALLISTIC ARMOR			10.1									10.1
010-05	H-53 ERIP	108.3	16.2	39.4	5.3	5.0	10.3	11.5	6.1	7.5	11.8	74.6	285.7
015-05	H-53 MEDIVAC	44.1	8.6	26.8		8.4	8.4						87.9
008-06	H-53 A/C SUSTAINMENT	76.3	17.2	38.2	9.2	1.9	11.1	17.3	8.5	14.6	12.8	84.1	280.0
020-07	H-53 VDE	17.2	1.4	36.5									29.6
010-08	DIRCM	154.6	21.4	12.0	3.5	21.0	24.5	5.6	5.7	5.0	1.0	18.2	248.1
020-09	H-53 HUD		5.0	25.0									30.0
	Inactive OSIPs	131.9											131.9
<b>Total</b>		<b>874.6</b>	<b>91.9</b>	<b>232.7</b>	<b>25.9</b>	<b>36.2</b>	<b>62.1</b>	<b>38.0</b>	<b>25.9</b>	<b>30.6</b>	<b>29.2</b>	<b>271.8</b>	<b>1,656.9</b>
<p>Note: Totals may not add due to rounding.</p>													
RESERVE FUNDING INCLUDED IN TOTAL			7.4	7.3	7.4			7.5	7.6	7.8	7.9		

Exhibit P-3a Individual Modification  
 MODIFICATION TITLE: HNVS (OSIP 012-92)  
 MODELS OF SYSTEMS AFFECTED: CH-53E (152) 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-29A FLIR. Future configuration for CH-53E transport helicopter will be the AAQ-29A FLIR due to obsolescence issues for OEM with AAQ-16B. Program is structured to replace AAQ-16 with AAQ-29A to establish a single configuration.

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-III A 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. The AAQ-29A is currently in production.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
A-Kits (EER)	156	11.6																		156	11.6
Installation Kits N/R		3.1																			3.1
Installation Equipment																					
AAQ-29A TFU/SEU	25	14.1	1	0.7	1	0.5	1	0.5									28	15.1	56	30.9	
AAQ-29A TFU/SEU Supp	54	25.3			42	25.2														96	50.5
CH-53E Installation Equipment	195	18.7																		195	18.7
CH-53E TFU/SDC AAQ-16B/29	223	72.3																		223	72.3
Installation Equipment N/R		1.0																			1.0
Engineering Change Orders																					
Data		1.0																			1.0
Training Equipment		8.4																			8.4
Support Equipment																					
ILS		1.0																			1.0
Other Support		13.8				0.3		0.5										3.5			18.0
Interim Contractor Support																					
Installation Cost	156	9.5																		156	9.5
<b>Total Procurement</b>		<b>179.7</b>		<b>0.7</b>		<b>26.0</b>		<b>1.0</b>										<b>18.6</b>			<b>225.9</b>

Notes:

1. Totals may not add due to rounding
2. All installations are O-Level.

Exhibit P-3a

Individual Modification

MODIFICATION TITLE: ATTEN. TRP SEATS (OSIP 020-97 )

MODELS OF SYSTEMS AFFECTED: CH-53D (36), CH-53E (152), MH-53E (31), 219 Total 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. FY05 supplemental funds provided for the NRE and initial procurement of troop seat upgrades to better accommodate today's troops and their body bourn equipment. FY06 supplemental funding provided NRE, qualification, initial procurement, and support for Crash Attenuating Crew Chief Seat for all H-53 Type/Model/Series helicopters.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
CATS Upgrade Kits	239	5.2																	239	5.2	
CH-53D Kits	46	4.6																	46	4.6	
CH-53E Kits	154	11.9																	154	11.9	
MH-53E Cruise Box Kits	26	0.2																	26	0.2	
MH-53E Extension Brackets	20	0.1																	20	0.1	
MH-53E Kits	22	1.9																	22	1.9	
Installation Kits N/R		2.3																			2.3
Installation Equipment																					
Crew Chief Seats (B kits)	219	1.9																	219	1.9	
Seat Testing	1	0.7																	1	0.7	
Installation Equipment N/R																					
Engineering Change Orders																					
Eng Change Orders		0.5																			0.5
Data		1.0																			1.0
Training Equipment	6	0.1																	6	0.1	
Support Equipment				0.3																	0.3
ILS		0.3																			0.3
Other Support		15.1		0.3																	15.4
Interim Contractor Support																					
Installation Cost	222	5.3	20	0.2	106	1.1	33	0.3	33	0.3	33	0.3							447	7.6	
<b>Total Procurement</b>		<b>51.1</b>		<b>0.8</b>		<b>1.1</b>		<b>0.3</b>		<b>0.3</b>		<b>0.3</b>									<b>54.0</b>

Notes:

- Totals may not add due to rounding
- CATS Upgrade kits (QTY 239) are installed at O-level.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: CH-53D (36), CH-53E (152), MH-53E (31) MODIFICATION TITLE: ATTEN. TRP SEATS (OSIP 020-97)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: CONTRACTOR INSTALLED - Field Modification Team

ADMINISTRATIVE LEADTIME: \_\_\_\_\_ Months PRODUCTION LEADTIME: \_\_\_\_\_ Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (447) kits	222	5.3	20	0.2	106	1.1	33	0.3	33	0.3	33	0.3								447	7.6
FY 2009 ( ) kits																					
FY 2010 ( ) kits																					
FY 2011 ( ) kits																					
FY 2012 ( ) kits																					
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete ( ) kits																					
<b>TOTAL</b>	<b>222</b>	<b>5.3</b>	<b>20</b>	<b>0.2</b>	<b>106</b>	<b>1.1</b>	<b>33</b>	<b>0.3</b>	<b>33</b>	<b>0.3</b>	<b>33</b>	<b>0.3</b>								<b>447</b>	<b>7.6</b>

Installation Schedule

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In	222				20	34	31	20	21	8	8	8	9	8	8	8	9	11	11	11	11
Out	222				20	34	31	20	21	8	8	8	9	8	8	8	9	11	11	11	11

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										447
Out										447

Notes:

- Quantity of 222 Troop seats installed in prior years (46 CH-53D kits, 154 CH-53E kits, and 22 MH-53E kits).
- Quantity of 225 Crew Chief seat installs includes 213 B-kits, 6 Val/Ver B-kits, and 6 trainer kits.

Exhibit P-3a Individual Modification  
 MODIFICATION TITLE: INTEGRATED MECH DIAG (OSIP 007-98 )  
 MODELS OF SYSTEMS AFFECTED: CH-53E (152), MH-53E (29), 181 Total 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. Full incorporation of IMDS capabilities will allow rapid transition from the current costly philosophies of the 70s to today's cost wise initiatives and concepts. Lessons learned from this effort were incorporated into the solicitation for the fleet wide IMD effort with CH/MH-53E aircraft designated as the lead platforms. IMDS produces the aircraft interface required to implement military flight operations quality assurance (MFOQA), a capability designed to provide hazard monitoring and mitigation.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The CH-53E IMDS successfully completed operational evaluation (OPEVAL) in October 2005. The Milestone Decision Authority approved full-rate production for CH-53E IMDS in December 2004. MH-53E Val/Ver completion scheduled for 1st Qtr FY11. Advanced diagnostics enhancements & airframe structural life extension database interfaces are being incorporated to provide comprehensive platform operational & maintenance status awareness to the Squadron Commanders & key decision makers.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
AVC-5102 Panel Lens (LBAD)	1	0.1																		1	0.1
Accelerometers	2	0.2																		2	0.2
CH-53E A-Kits	111	34.2	4	1.5	2	0.4														117	36.1
CH-53E A-Kits (CONG)	10	4.0	20	7.7																30	11.7
CH-53E A-Kits - Supp					5	1.5														5	1.5
MH-53E Kits (A-kits)			3	0.9	14	5.6	2	0.8	2	0.8	8	3.2								29	11.3
Installation Kits N/R		3.1		1.2																	4.3
Installation Equipment																					
IMDS Ground Equipment		*																			*
Installation Equipment N/R																					
Engineering Change Orders																					
Data		1.0		0.1		0.2								0.2							1.5
Training Equipment		0.5		0.1	2	1.1	1	0.4												3	2.1
Support Equipment		2.4		0.6		0.2		0.1			0.2		0.2		0.2				0.9		4.8
ILS		3.0																			3.0
Other Support		40.2		5.4		3.5		2.8		1.4		1.7		2.4		3.4			11.9		72.7
Interim Contractor Support																					
Installation Cost	95	7.7	14	1.3	23	2.4	29	2.5	13	1.1	2	0.2	8	0.7						184	15.9
<b>Total Procurement</b>		<b>96.4</b>		<b>18.7</b>		<b>14.9</b>		<b>6.5</b>		<b>3.3</b>		<b>5.3</b>		<b>3.5</b>		<b>3.6</b>			<b>12.8</b>		<b>165.0</b>

Notes:

- Totals may not add due to rounding
- Asterisk indicates amount less than \$51K
- Quantity of 184 installs includes 3 trainer kits.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: CH-53E (152) MODIFICATION TITLE: INTEGRATED MECH DIAG (OSIP 007-98) - CH-53

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: CONTRACTOR INSTALLED - Field Modification Team

ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2009: Sep-09 FY 2010: Mar-10 FY 2011: \_\_\_\_\_

DELIVERY DATE: FY 2009: Mar-10 FY 2010: Sep-10 FY 2011: \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (121) kits	95	7.7	13	1.0	13	1.4														121	10.1
FY 2009 (24) kits					7	0.7	17	1.4												24	2.2
FY 2010 (9) kits					2	0.2			7	0.6										9	0.8
FY 2011 ( ) kits																					
FY 2012 ( ) kits																					
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete ( ) kits																					
<b>TOTAL</b>	<b>95</b>	<b>7.7</b>	<b>13</b>	<b>1.0</b>	<b>22</b>	<b>2.3</b>	<b>17</b>	<b>1.4</b>	<b>7</b>	<b>0.6</b>									<b>154</b>	<b>13.1</b>	

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In	95	3	4	3	3	5	5	6	6	5	4	4	4	4	3							
Out	95	3	4	3	3	5	5	6	6	5	4	4	4	4	3							

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										154
Out										154

Notes:  
1. Quantity of 154 installs includes 2 trainer kits.

**Exhibit P-3a**

MODELS OF SYSTEMS AFFECTED: **MH-53E (29)** MODIFICATION TITLE: INTEGRATED MECH DIAG (OSIP 007-98) - MH-53

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: CONTRACTOR INSTALLED - Field Modification Team

ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2009: May-09 FY 2010: Aug-10 FY 2011: Aug-11

DELIVERY DATE: FY 2009: Aug-09 FY 2010: Feb-11 FY 2011: Feb-12

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY ( ) kits																					
FY 2009 (3) kits			1	0.3	1	0.1	1	0.1												3	0.5
FY 2010 (14) kits							10	0.9	4	0.3									14	1.2	
FY 2011 (3) kits							1	0.1	2	0.2									3	0.3	
FY 2012 (2) kits											2	0.2							2	0.2	
FY 2013 (8) kits													8	0.7					8	0.7	
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete ( ) kits																					
<b>TOTAL</b>			<b>1</b>	<b>0.3</b>	<b>1</b>	<b>0.1</b>	<b>12</b>	<b>1.0</b>	<b>6</b>	<b>0.5</b>	<b>2</b>	<b>0.2</b>	<b>8</b>	<b>0.7</b>					<b>30</b>	<b>2.8</b>	

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		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	4	4	2	2	2		2				
Out				1			1		1	3	4	4	2	2	2		2				

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In	2	2	2	2						30
Out	2	2	2	2						30

Notes:

- 1. Quantity of 30 installs includes 1 trainer kit.

Exhibit P-3a Individual Modification  
 MODIFICATION TITLE: H-53 INTERIOR BALLISTIC ARMOR (OSIP 21-03 )  
 MODELS OF SYSTEMS AFFECTED: CH-53D (36), CH-53E (152) TYPE MODIFICATION: SAFETY, MISSION/PERFORMANCE ENHANCEMENT

DESCRIPTION/JUSTIFICATION: Ballistic Protection System (BPS) provides increased 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 panel: secured to the cockpit and cargo compartment floor and to the sidewall area around the gunners' doors. These panels have been used in OCO and have been subject to extreme wear and tear. There are not enough BPS panels to outfit each airframe and as units continue to rotate in the Areas of Responsibility (AORs). These BPS systems will need to be repaired or replaced. While panels are being repaired and replaced, those aircraft continue to do their mission and the necessity of the BPS panels are critical. The procurement and installation of these BPS panels will allow every aircraft the capability of conducting their missions regardless of whether the panels are being repaired or replaced. This effort provides for improved survivability of crew and passengers against small arms and anti-aircraft fragmentation type threats that the fleet is increasingly exposed to during OCO.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The BPS production kits were completed for the CH-53E, CH-53D, and MH-53E in Aug 06. Every H-53 received installation provisions (A-Kit). An armor panel set (B-Kit) will go to approximately half of the aircrafts. The BPS can be quickly moved from aircraft to aircraft according to mission needs.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
Installation Kits N/R																					
Installation Equipment																					
CH-53E BPS B-kits					85	8.0														85	8.0
CH-53D BPS B-kits					22	2.1														22	2.1
Installation Equipment N/R							*														*
Engineering Change Orders																					
Data																					
Training Equipment																					
Support Equipment																					
ILS																					
Other Support																					
Interim Contractor Support																					
Installation Cost																					
<b>Total Procurement</b>							<b>10.1</b>														<b>10.1</b>

Notes:

- Totals may not add due to rounding
- Asterisk indicates amount less than \$51K

Exhibit P-3a Individual Modification  
 MODIFICATION TITLE: H-53 ERIP (OSIP 010-05)  
 MODELS OF SYSTEMS AFFECTED: H-53 T64 Turbo-shaft engines 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. T64 engines will be modified to incorporate titanium nitride-coated compressor airfoils. Titanium nitride coating provides significantly improved durability and reliability for operation in austere environments. Degraded and obsolete peculiar support equipment will also be improved.  
 DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: 186 of 462 engines have been upgraded from the T64-416 to T64-416A configuration. T64-416A upgrade kits procured with FY04 Title IX Supplemental funding began installs in FY05. T64-416 and -416A engines began incorporating titanium nitride in FY04. T64-419 engines began incorporating titanium nitride in FY06. T64-413 engines began incorporating titanium nitride in FY07.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
Installation Kits N/R																					
Installation Equipment																					
416A CONVERSION KITS	21	2.7																		21	2.7
416A UPGRADE (GE)	84	12.4																		84	12.4
AIR STARTER KITS	8	0.2																		8	0.2
COMPR ROTOR SET KITS	960	0.7																		960	0.7
REL IMPROV KITS (GE)	38	3.2																		38	3.2
T2 HOUSNG KICKSTD (GE)	933	0.2																		933	0.2
T64 Comp Cases - sppt TIN	5	0.3																		5	0.3
T64 ERIP Kits (ERP convert)	93	15.7																		93	15.7
T64 ERIP Kits	100	14.0																		100	14.0
T64 ERIP Kits (SUPP)	254	5.0																		254	5.0
TIN SETS (GE)	83	20.4	3	*																86	20.5
TIN SETS (GE) SUPP	140	14.2																		140	14.2
CH-53D TiN Kits					33	6.6														33	6.6
MH-53E TiN Kits					33	6.6														33	6.6
419 TiN Kits									5	1.0										5	1.0
VG ACTUATOR KITS	1,100	*																		1100	*
H-53E EAPS Improvements			47	1.4																47	1.4
Hot Day fire warning sensors					152	5.8														152	5.8
PPC 109 Rev A Kits			67	10.5	36	6.8			33	6.7	10	1.9	17	3.2	37	7.0	119	22.6	319	58.8	
Hot Day PPC-109RevA OCO							24	4.7												24	4.7
419 Fuel Control Kits			144	1.7	258	3.0	101	1.2												503	5.9
Hot Day Fuel Controls OCO							24	0.3												24	0.3
Fuel Nozzle Kits							25	0.9	26	0.9	22	0.8	22	0.8	32	1.2	744	18.8	871	23.4	
419 Fuel Pump Kits			144	0.4	320	0.8									35	0.1	124	0.4	623	1.7	
PPC-117 VGV Kits					236	6.6											635	22.2	871	28.8	
Installation Equipment N/R		3.4																			3.4
Engineering Change Orders																					
Data		1.0																			1.0
Training Equipment		*																			*
Support Equipment		5.8			0.2	0.2															6.3
IJS		0.3																			0.3
Other Support		8.2	2.1		2.9	3.0			2.8		3.4		3.5		3.5		10.6				40.0
Interim Contractor Support																					
Installation Cost	118	0.5																		118	0.5
<b>Total Procurement</b>		<b>108.3</b>		<b>16.2</b>		<b>39.4</b>		<b>10.3</b>		<b>11.5</b>		<b>6.1</b>		<b>7.5</b>		<b>11.8</b>		<b>74.6</b>		<b>285.7</b>	

- Notes:
1. Totals may not add due to rounding
  2. Asterisk indicates amount less than \$51K
  3. Quantity of ERIP kits reflects the various modification requirements for 101 CH-53D engines, 638 CH-53E engines, and 132 MH-53E engines. Quantities reflect total engine inventory

Exhibit P-3a		Individual Modification																			
MODIFICATION TITLE:		H-53 MEDIVAC (OSIP 015-05)																			
MODELS OF SYSTEMS AFFECTED:		CH-53D(36), CH-53E(152), MH-53E(31), 219 Total										TYPE MODIFICATION: SAFETY, READINESS AND MAINTAINABILITY									
DESCRIPTION/JUSTIFICATION: This funding effort is established for procurement and integration of survivability systems that will improve H53 aircrew and passengers against hostile threats through more effective self-defense methods. The H53 survivability strategy is to upgrade threat detection ability, increase countermeasure capability, reduce vulnerability, enhance situational awareness by communicating aircraft position to deconflict with friendly forces in the AO, and improve vulnerability to battle damage by better developing protection for both the aircrew and critical components. This increased survivability will protect the H-53 during all aspects of its various missions; assault support, shipboard delivery of cargo, anti-mine warfare, casualty transport/Medivac, and heavy cargo transport.																					
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Aircraft Survivability Equipment (ASE) effort (8 aircraft) complete in Aug 2008. Blue Force Tracker (BFT) fully equipped aircraft deployment scheduled for June 2008. BFT production installation effort will complete in August 2010. BFT is an Army ACAT IC program, encryption and L-band enhancements are anticipated.																					
FINANCIAL PLAN: (TOA, \$ in Millions)																					
	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
BFT A Kits (CH-53)	78	2.8																	78	2.8	
BFT A Kits (CH-53) (ESAD)	1	*																	1	*	
BFT A Kits CH-53 (SUPP)	113	1.7	43	1.0	33	0.3													189	2.9	
BFT A Kits CH-53 (OCO)							50	1.5											50	1.5	
BFT A Kits (MH-53)	16	0.4																	16	0.4	
BFT A Kits (MH-53) SUPP	16	0.6																	16	0.6	
H-53 NVD Kits	355	0.1																	355	0.1	
MH ASE Suite A-Kits	30	2.4																	30	2.4	
MH-53E ASE Prerequisite Kits	20	0.1																	20	0.1	
MH-53E ASE Prereq Kits SUPP	150	0.3																	150	0.3	
CH-53E CSA Val/Ver					2	*													2	*	
MH-53E CSA Val/Ver					2	*													2	*	
CH-53E CSA A Kits					150	1.2													150	1.2	
MH-53E CSA A Kits					29	0.2													29	0.2	
Installation Kits N/R		*	0.5		1.9															2.5	
Installation Kits N/R - OCO								0.8												0.8	
Installation Equipment																					
BFT B Kits (CH-53)	113	4.0																	113	4.0	
BFT B Kits (CH-53) (SUPP)	55	5.0	43	3.5															98	8.5	
BFT B Kits (CH-53) OCO							141	1.5											141	1.5	
BFT B Kits (MH-53)	34	1.0																	34	1.0	
BFT B kits	39	2.3																	39	2.3	
BFT L-Band, Crypto upgrade					33	0.5													33	0.5	
BFT TOC kit upgrade					27	1.1													27	1.1	
MH AAR-47 (P-Kit)	31	1.5																	31	1.5	
MH ALE-47 (P-Kit)	124	0.6																	124	0.6	
SPARES	10	0.5																	10	0.5	
CH-53E CSA B Kits					92	9.5													92	9.5	
MH-53E CSA B Kits					19	2.0													19	2.0	
Installation Equipment N/R		1.0	0.5																	1.5	
Engineering Change Orders			0.1		*															0.1	
Engineering Change Orders - OCO								*												*	
Data		1.0	0.0		0.2															1.2	
Data - OCO								*												*	
Training Equipment		0.7			3	0.2													3	0.8	
Support Equipment		0.3						*												0.3	
Support Equipment - OCO								*												*	
ILS		1.3	0.2		0.9															2.4	
ILS - OCO								0.5												0.5	
Other Support		10.8	0.7		1.7															13.2	
Other Support - OCO								0.5												0.5	
Interim Contractor Support			1.5		2.7															4.2	
Interim Contractor Support OCO								3.1												3.1	
Installation Cost	90	5.7	62	0.7	200	4.3	183												535	10.7	
Installation Cost - OCO							50	0.4												50	0.4
<b>Total Procurement</b>		<b>44.1</b>		<b>8.6</b>		<b>26.8</b>		<b>8.4</b>												<b>87.9</b>	

Notes:

- Totals may not add due to rounding
- Asterisk indicates amount less than \$51K
- Quantity of 352 BFT A-kits includes TOC and KGV-72 Crypto upgrades in accordance with Army spiral upgrade program.
- Quantity of 224 BFT A-kits in prior years includes 5 trainers with no install cost
- Quantity of 402 installs includes 57 ASE kits and 345 BFT A Kits.
- Quantity of 31 ASE installs were completed in prior years (\$2.407M), install schedule is not required.
- Quantity of 183 CSA kits procured with FY10 supplemental are installed in FY11

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: CH-53D(36), CH-53E(152), MH-53E(31), 219 Total      MODIFICATION TITLE: H-53 MEDIVAC (OSIP 015-05) - Blue Force Tracker

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Field Modification Teams

ADMINISTRATIVE LEADTIME: 2 Months      PRODUCTION LEADTIME: 1 Months

CONTRACT DATES:      FY 2009: Sep-09      FY 2010: Nov-09      FY 2011: Nov-10

DELIVERY DATE:      FY 2009: Oct-09      FY 2010: Dec-09      FY 2011: Dec-10

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL			
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$		
FY 2008 & PY (276) kits	90	5.7	62		124															276	5.7	
FY 2009 (43) kits				0.7	43																43	0.7
FY 2010 (33) kits					33	0.4															33	0.4
FY 2011 (50) kits							50	0.4													50	0.4
FY 2012 ( ) kits																						
FY 2013 ( ) kits																						
FY 2014 ( ) kits																						
FY 2015 ( ) kits																						
To Complete ( ) kits																						
<b>TOTAL</b>	<b>90</b>	<b>5.7</b>	<b>62</b>	<b>0.7</b>	<b>200</b>	<b>0.4</b>	<b>50</b>	<b>0.4</b>												<b>402</b>	<b>7.2</b>	

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In	90	7	11	19	25	31	45	53	71					25	25							
Out	90	7	11	19	25	31	45	53	71					25	25							

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										402
Out										402

Notes:

1. Quantity of 402 installs includes 57 ASE kits and 345 BFT A Kits.

**Exhibit P-3a**

MODELS OF SYSTEMS AFFECTED: CH-53D(31), CH-53E(137), MH-53E(26), 194 Total      MODIFICATION TITLE: H-53 MEDIVAC (OSIP 015-05) - Engine Armor

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Field Modification Teams

ADMINISTRATIVE LEADTIME: 6 Months      PRODUCTION LEADTIME: 6 Months

CONTRACT DATES:      FY 2009: \_\_\_\_\_      FY 2010: Mar-10      FY 2011: \_\_\_\_\_

DELIVERY DATE:      FY 2009: \_\_\_\_\_      FY 2010: Sep-10      FY 2011: \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY ( ) kits																					
FY 2009 ( ) kits																					
FY 2010 (183) kits					3.9		183													183	3.9
FY 2011 ( ) kits																					
FY 2012 ( ) kits																					
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete ( ) kits																					
<b>TOTAL</b>							<b>3.9</b>	<b>183</b>												<b>183</b>	<b>3.9</b>

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In										45	46	46	46									
Out										45	46	46	46									

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										183
Out										183

Notes:

- 2. Quantity of 183 CSA kits procured with FY10 supplemental will be installed in FY11.

Exhibit P-3a Individual Modification  
 MODIFICATION TITLE: H-53 A/C SUSTAINMENT (OSIP 008-06 )  
 MODELS OF SYSTEMS AFFECTED: CH-53D (36), CH-53E (152), MH-53E (29), 217 Total TYPE MODIFICATION: MISSION/PERFORMANCE SUSTAINMENT

DESCRIPTION/JUSTIFICATION: The H-53 Aircraft are included in the Headquarters Marine Corps Aviation Plan through CY 2025. 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 Program Acquisition Strategy was approved by PEO(A) in March 2006, to be executed as four Abbreviated Acquisition Programs (AAPs) for (1) Fatigue, (2) Obsolescence, (3) Readiness, and (4) Safety. Each AAP consists of several independent projects, each of which has an independent platform effectivity, acquisition strategy, production lead time, production rate and quantity, and installation approach. Thus, they are not amenable to a "block upgrade" type approach. Each year of the program will involve non-recurring engineering (NRE) on some projects, leading to production and installation in out-years. Other projects require little or no NRE and can be acquired

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
#2 Engine Backflow (CH/MH-E)					60	1.7	20	0.6	22	0.8									102	3.1	
Aircrew Cooling A-kits	20	0.5	29	0.8															49	1.4	
CH-53E Aircrew Cooling OCO					45	0.7													45	0.7	
CH-53D Aircrew Cooling OCO					36	0.5													36	0.5	
Arc Fault Circuit Break (H-53)	214	0.5																	214	0.5	
Cooling Shroud Kits	50	0.1																	50	0.1	
Common GCU Ship-sets (H-53)					30	0.6	30	0.6	30	0.6	30	0.7	38	0.8					158	3.3	
CH-53E EAPS Seal - OCO					152	0.6													152	0.6	
MH-53E EAPS Seal - OCO					31	0.1													31	0.1	
CH-53D EAPS Seal - OCO							36	0.2											36	0.2	
CH-53 EAPS Bypass - OCO					79	1.6													79	1.6	
MH-53 EAPS Bypass - OCO					31	0.6													31	0.6	
CH-53D EAPS Improv - OCO							36	0.7											36	0.7	
EAPS Improv Kits (CH/MH-E)					15	0.5	11	0.6											26	1.1	
Emergency Egress Light (H-53)	85	0.2	134	0.3															219	0.5	
Engine Sling Kits			60	0.3															60	0.3	
Gyro Replacement (CH-D)	40	1.4																	40	1.4	
Gyro Replacement (CH-D) Supp	32	1.1																	32	1.1	
Kapton Wiring Kits (H-53)	10	1.7	3	1.2	23	8.1			12	4.2	3	1.1	12	4.2	2	0.7	30	10.5	95	31.5	
Kapton Wiring Kits (H-53) Supp	25	8.7																	25	8.7	
CH-53E Kapton Val/Ver OCO					4	1.8													4	1.8	
MH-53E Kapton Val/Ver OCO					2	1.3													2	1.3	
MRH Weight Bracket Supp	2	0.1																	2	0.1	
NGB Improved Seal Kits (H-53)	456	3.2																	456	3.2	
NLG Door Bracket (H-53)	220	0.3																	220	0.3	
Obsolescent Components (H-53)	120	1.8	11	0.6	26	1.3	8	0.4	38	1.9	5	0.2	58	2.3	90	3.2	241	28.9	597	40.6	
Ramp Conversion Kits	35	*																	35	*	
Rotor Blade Coating (H-53)									13	1.9					4	0.5	200	4.0	217	6.4	
Transition Bulkhead (CH/MH-E)	37	3.4	15	1.4	14	1.3	15	1.4	11	1.1	8	0.8	12	1.2	17	1.9	33	4.0	162	16.5	
#6 TRDS Fitting Kit (CH/MH-E)	37	0.1																	37	0.1	
Wiring Diagnostics Kits (H-53)					18	0.1													18	0.1	

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
Wiring Diagnost Kits (H-53) SUPP	5	0.4																	5	0.4
Installation Kits N/R		4.5		0.1		4.0				0.6		0.7		1.1		0.7			3.2	14.7
Installation Kits N/R - OCO								0.5												0.5
Installation Equipment																				
CH-53D HEELS B KITS	2	*																	2	*
CH-53E HEELS B KITS	2	*																	2	*
Aircrew Cooling B-kits	513	3.2	86	0.2															599	3.4
CH-53E Aircrew Cooling OCO					45	1.4													45	1.4
CH-53D Aircrew Cooling OCO					36	1.1													36	1.1
Aircrew Cooling Garments	172	0.1																	172	0.1
Electric Cargo Winch	20	3.1																	20	3.1
H-53 HEELS B-kits (CONG)	216	1.9																	216	1.9
IRB SUPP	92	7.3																	92	7.3
MH-53E HEELS B KITS	2	*																	2	*
Ramp Cables B Kits	120	*																	120	*
Installation Equipment N/R		0.1																		0.1
Engineering Change Orders																				
Data - OCO							0.1													0.1
Data		0.5		0.1		1.8				0.2		0.2		0.3		0.4			1.8	5.1
Training Equipment	6	*				0.1													6	0.2
Training Equipment - OCO								0.1												0.1
Support Equipment		2.7		1.4																4.1
ILS		1.7		1.0		0.7														3.3
Other Support		22.6		7.3		4.0		2.6		4.4		3.2		3.5		4.3			19.2	71.0
Other Support - OCO								0.3												0.3
Interim Contractor Support				0.3		0.4														0.7
Installation Cost	282	5.0	149	2.4	435	4.1	232	3.0	96	1.5	57	1.7	52	1.2	25	1.2	483	12.6	1811	32.7
<b>Total Procurement</b>		<b>76.3</b>		<b>17.2</b>		<b>38.2</b>		<b>11.1</b>		<b>17.3</b>		<b>8.5</b>		<b>14.6</b>		<b>12.8</b>			<b>84.1</b>	<b>280.0</b>

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than \$51K

**Exhibit P-3a**

MODELS OF SYSTEMS AFFECTED: CH-53E (152), MH-53E (29), 181 Total      MODIFICATION TITLE: #2 Engine Backflow kits - H-53 A/C SUSTAINMENT (OSIP 008-06)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Field Modification Team

ADMINISTRATIVE LEADTIME: 4 Months      PRODUCTION LEADTIME: 10 Months

CONTRACT DATES:      FY 2009: \_\_\_\_\_      FY 2010: Jan-10      FY 2011: Jan-11

DELIVERY DATE:      FY 2009: \_\_\_\_\_      FY 2010: Nov-10      FY 2011: Nov-11

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY ( ) kits																					
FY 2009 ( ) kits																					
FY 2010 (60) kits							60	0.4												60	0.4
FY 2011 (20) kits									20	0.2										20	0.2
FY 2012 (22) kits											22	0.2								22	0.2
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete ( ) kits																					
<b>TOTAL</b>							<b>60</b>	<b>0.4</b>	<b>20</b>	<b>0.2</b>	<b>22</b>	<b>0.2</b>								<b>102</b>	<b>0.7</b>

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In											20	20	20		10	10			10	12	
Out											20	20	20		10	10			10	12	

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										102
Out										102

**Exhibit P-3a**

MODELS OF SYSTEMS AFFECTED: CH-53D (36), CH-53E (152), MH-53E (29), 217 Total      MODIFICATION TITLE: Aircrew Cooling Kits - H-53 A/C SUSTAINMENT (OSIP 008-06)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Field Modification Team

ADMINISTRATIVE LEADTIME: 2 Months      PRODUCTION LEADTIME: 2 Months

CONTRACT DATES:      FY 2009: Nov-08      FY 2010: Nov-09      FY 2011: \_\_\_\_\_

DELIVERY DATE:      FY 2009: Jan-09      FY 2010: Jan-10      FY 2011: \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (4) kits	4	*																		4	*
FY 2009 (29) kits			13	0.6	16															29	0.6
FY 2010 (81) kits					81	1.2														81	1.2
FY 2011 ( ) kits																					
FY 2012 ( ) kits																					
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete ( ) kits																					
<b>TOTAL</b>	<b>4</b>	<b>0.0</b>	<b>13</b>	<b>0.6</b>	<b>97</b>	<b>1.2</b>														<b>114</b>	<b>1.9</b>

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In	4			1	12	12	4	40	41													
Out	4			1	12	12	4	40	41													

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										114
Out										114

Notes:

- Quantity of 4 kits installed in prior years reflect generation 1 A-kits. Balance of 16 generation 1 kits will be installed with generation 2 kits.
- Quantity of 29 kits installed reflects 29 generation 2 A-kits procured in FY09 (with 16 generation 1 kits incorporated).
- Quantity of 16 kits installed in FY10 with FY09 funding.

**Exhibit P-3a**

MODELS OF SYSTEMS AFFECTED: CH-53E (152), MH-53E (29), 181 Total      MODIFICATION TITLE: EAPS Seals - H-53 A/C SUSTAINMENT (OSIP 008-06)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Field Modification Team

ADMINISTRATIVE LEADTIME: 4 Months      PRODUCTION LEADTIME: 5 Months

CONTRACT DATES:      FY 2009: \_\_\_\_\_      FY 2010: Jan-10      FY 2011: Jan-11

DELIVERY DATE:      FY 2009: \_\_\_\_\_      FY 2010: Jun-10      FY 2011: Jun-11

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY ( ) kits																					
FY 2009 ( ) kits																					
FY 2010 (183) kits					60	0.3	123	0.6												183	0.9
FY 2011 (36) kits									36	0.2										36	0.2
FY 2012 ( ) kits																					
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete ( ) kits																					
<b>TOTAL</b>					<b>60</b>	<b>0.3</b>	<b>123</b>	<b>0.6</b>	<b>36</b>	<b>0.2</b>									<b>219</b>	<b>1.1</b>	

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In								30	30	30	31	31	31	36								
Out								30	30	30	31	31	31	36								

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										219
Out										219

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **CH-53D (36), CH-53E (152), MH-53E (29), 217 Total**      MODIFICATION TITLE: Emergency Egress Lighting - H-53 A/C SUSTAINMENT (OSIP 008-06)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: \_\_\_\_\_ **Field Modification Team** \_\_\_\_\_

ADMINISTRATIVE LEADTIME: 4 Months      PRODUCTION LEADTIME: 10 Months

CONTRACT DATES:      FY 2009: Jan-09      FY 2010: \_\_\_\_\_      FY 2011: \_\_\_\_\_

DELIVERY DATE:      FY 2009: Nov-09      FY 2010: \_\_\_\_\_      FY 2011: \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (85) kits		0.7	85																	85	0.7
FY 2009 (134) kits				1.1	134															134	1.1
FY 2010 ( ) kits																					
FY 2011 ( ) kits																					
FY 2012 ( ) kits																					
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete ( ) kits																					
<b>TOTAL</b>		<b>0.7</b>	<b>85</b>	<b>1.1</b>	<b>134</b>															<b>219</b>	<b>1.8</b>

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In		21	21	21	22	33	33	34	34													
Out		21	21	21	22	33	33	34	34													

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										219
Out										219

Notes:

- Quantity of 85 kits procured in FY08 with Congressional add funds are installed in FY09 with FY08 Congressional add funds.
- Quantity of 134 kits procured in FY09 with Congressional add funds are installed in FY10 with FY09 Congressional add funds.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **CH-53D (36), CH-53E (152), MH-53E (29), 217 Total**      MODIFICATION TITLE: Kapton Wiring - H-53 A/C SUSTAINMENT (OSIP 008-06)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: \_\_\_\_\_ **Field Modification Team, IMC**

ADMINISTRATIVE LEADTIME: 4 Months      PRODUCTION LEADTIME: 10 Months

CONTRACT DATES:      FY 2009: Jan-09      FY 2010: Jan-10      FY 2011: \_\_\_\_\_

DELIVERY DATE:      FY 2009: Nov-09      FY 2010: Nov-10      FY 2011: \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (35) kits		0.9	35																	35	0.9
FY 2009 (3) kits					3	0.1														3	0.1
FY 2010 (29) kits					6	0.5	23	0.9												29	1.4
FY 2011 ( ) kits																					
FY 2012 (12) kits											12	0.5								12	0.5
FY 2013 (3) kits													3	0.1						3	0.1
FY 2014 (12) kits															12	0.6				12	0.6
FY 2015 (2) kits																	2	0.1		2	0.1
To Complete (30) kits																	30	1.7		30	1.7
<b>TOTAL</b>		<b>0.9</b>	<b>35</b>		<b>9</b>	<b>0.6</b>	<b>23</b>	<b>0.9</b>			<b>12</b>	<b>0.5</b>	<b>3</b>	<b>0.1</b>	<b>12</b>	<b>0.6</b>	<b>32</b>	<b>1.9</b>		<b>126</b>	<b>5.5</b>

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	8	9	9	9	3				6	5	6	6	6					3	3	3	3
Out	8	9	9	9	3				6	5	6	6	6					3	3	3	3

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In	3				3	3	3	3	32	126
Out	3				3	3	3	3	32	126

Notes:

1. Quantity of 35 kits procured in prior years with supplemental funding are installed in FY09 with prior year supplemental funding.

**Exhibit P-3a**

MODELS OF SYSTEMS AFFECTED: **CH-53D (36), CH-53E (152), MH-53E (29), 217 Total**      MODIFICATION TITLE: Obsolescent Components - H-53 A/C SUSTAINMENT (OSIP 008-06)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Numerous types of kits will be procured. Each has it own unique installation method.

ADMINISTRATIVE LEADTIME: 8 Months      PRODUCTION LEADTIME: 17 Months

CONTRACT DATES:      FY 2009: May-09      FY 2010: May-10      FY 2011: May-11

DELIVERY DATE:      FY 2009: Oct-10      FY 2010: Oct-11      FY 2011: Oct-12

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2008 & PY (120) kits					120	1.2													120	1.2
FY 2009 (11) kits							11	0.1											11	0.1
FY 2010 (26) kits									26	0.3									26	0.3
FY 2011 (8) kits											8	0.1							8	0.1
FY 2012 (38) kits													38	0.4					38	0.4
FY 2013 (5) kits															5	0.1			5	0.1
FY 2014 (58) kits																	58	0.9	58	0.9
FY 2015 (90) kits																	90	1.4	90	1.4
To Complete (241) kits																	241	3.6	241	3.6
<b>TOTAL</b>					<b>120</b>	<b>1.2</b>	<b>11</b>	<b>0.1</b>	<b>26</b>	<b>0.3</b>	<b>8</b>	<b>0.1</b>	<b>38</b>	<b>0.4</b>	<b>5</b>	<b>0.1</b>	<b>389</b>	<b>5.8</b>	<b>597</b>	<b>7.9</b>

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In					30	30	30	30	3	3	2	3	6	6	7	7	2	2	2	2	
Out					30	30	30	30	3	3	2	3	6	6	7	7	2	2	2	2	

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In	9	9	10	10	2	1	1	1	389	597
Out	9	9	10	10	2	1	1	1	389	597

**Exhibit P-3a**

MODELS OF SYSTEMS AFFECTED: CH-53E (152), MH-53E (29), 181 Total      MODIFICATION TITLE: Transition Bulkhead - H-53 A/C SUSTAINMENT (OSIP 008-06)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: IMC

ADMINISTRATIVE LEADTIME: 6 Months      PRODUCTION LEADTIME: 19 Months

CONTRACT DATES:      FY 2009: Mar-09      FY 2010: Mar-10      FY 2011: Mar-11

DELIVERY DATE:      FY 2009: Oct-10      FY 2010: Oct-11      FY 2011: Oct-12

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL			
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$		
FY 2008 & PY (37) kits	16	0.8	10	0.6	11	0.7														37	2.2	
FY 2009 (15) kits							15	1.0													15	1.0
FY 2010 (14) kits									14	0.9											14	0.9
FY 2011 (15) kits											15	1.0									15	1.0
FY 2012 (11) kits													11	0.7							11	0.7
FY 2013 (8) kits															8	0.5					8	0.5
FY 2014 (12) kits																	12	1.0			12	1.0
FY 2015 (17) kits																		17	1.3		17	1.3
To Complete (33) kits																		33	2.6		33	2.6
<b>TOTAL</b>	<b>16</b>	<b>0.8</b>	<b>10</b>	<b>0.6</b>	<b>11</b>	<b>0.7</b>	<b>15</b>	<b>1.0</b>	<b>14</b>	<b>0.9</b>	<b>15</b>	<b>1.0</b>	<b>11</b>	<b>0.7</b>	<b>8</b>	<b>0.5</b>	<b>62</b>	<b>4.9</b>	<b>162</b>	<b>11.2</b>		

Installation Schedule

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In	16		2	3	5	3	3	3	2	3	4	4	4	3	3	4	4	3	4	4	4
Out	16		2	3	5	3	3	3	2	3	4	4	4	3	3	4	4	3	4	4	4

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In	3	3	3	2	2	2	2	2	62	162
Out	3	3	3	2	2	2	2	2	62	162

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: CH-53E (152), MH-53E (29), 181 Total MODIFICATION TITLE: Station 820 Bulkhead - H-53 A/C SUSTAINMENT (OSIP 008-06)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Field Modification Team, IMC

ADMINISTRATIVE LEADTIME: N/A Months PRODUCTION LEADTIME: N/A Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (161) kits	151	1.7	6		4															161	1.8
FY 2009 ( ) kits																					
FY 2010 ( ) kits																					
FY 2011 ( ) kits																					
FY 2012 ( ) kits																					
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete ( ) kits																					
<b>TOTAL</b>	<b>151</b>	<b>1.7</b>	<b>6</b>	<b>0.0</b>	<b>4</b>	<b>0.0</b>														<b>161</b>	<b>1.8</b>

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In	151			3	3	2	2															
Out	151			3	3	2	2															

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										161
Out										161

Note:  
1. Station 820 kits were procured with other prior year funding. Installation costs are funded in this OSIP.

Exhibit P-3a		Individual Modification																			
MODIFICATION TITLE:		VISUALLY DEGRADED ENVIRONMENT (OSIP 020-07)																			
MODELS OF SYSTEMS AFFECTED:		CH-53E (96)									TYPE MODIFICATION:									SAFETY/PERFORMANCE	
<p>DESCRIPTION/JUSTIFICATION: VDE is the greatest unmitigated challenge faced by Marine Aviation in its current operating environment. The loss of visual ground reference during night landings to unimproved, dusty landing zones is the greatest safety risk to H-53 aircrew, passengers and aircraft. The H-53 will continue to operate in VDE and continue to endanger flight crews and passengers while flying in a low altitude/low airspeed regime or landing in unimproved landing zones in conditions that may cause loss of a visual reference due to dust, snow, fog, smoke or darkness. A VDE solution will facilitate mission accomplishment in all degraded cueing environments, prevent degraded cueing environment mishaps and subsequent loss of life and assets. Reference: Cf 53 Zero Visibility Landing System UNS # 06069UB, approved 27 Feb 06.</p> <p>DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: PMA261 is currently supporting technology development, demonstration, and integration in a phased approach to the VDE solution. Prototype installation of a system providing enhanced cueing to the flying pilot is underway. Technology development and demonstration of laser and RF based systems are underway with flight test of a laser-based system, as installed on an H-53, scheduled for September, 2009.</p>																					
FINANCIAL PLAN: (TOA, \$ in Millions)																					
	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
VDE A-Kits					24	1.9											72	6.2	96	8.1	
CNS/ATM Kits SUPP	4	2.3			9	12.9													13	15.1	
Installation Kits N/R																					
Installation Equipment																					
VDE B-Kits					24	4.3											72	14.5	96	18.8	
Installation Equipment N/R		3.3		0.3																	3.6
Engineering Change Orders																					
Data		2.6																			2.6
Training Equipment		6.1				9.2													2.5		17.8
Support Equipment		0.2																			0.2
ILS																					
Other Support		2.6		1.2		0.1													0.9		4.8
Interim Contractor Support																					
Installation Cost					33	8.2											63	5.4	96	13.6	
<b>Total Procurement</b>		<b>17.2</b>		<b>1.4</b>		<b>36.5</b>												<b>29.6</b>			<b>84.7</b>
Notes:																					
1. Totals may not add due to rounding																					

**Exhibit P-3a**

MODELS OF SYSTEMS AFFECTED: CH-53E (96) MODIFICATION TITLE: VISUALLY DEGRADED ENVIRONMENT (OSIP 020-07)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Field Modification Teams

ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 3 Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: Nov-09 FY 2011: \_\_\_\_\_

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: Feb-10 FY 2011: \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY ( ) kits																					
FY 2009 ( ) kits																					
FY 2010 (33) kits					33	8.2														33	8.2
FY 2011 ( ) kits																					
FY 2012 ( ) kits																					
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete ( ) kits																					
<b>TOTAL</b>					<b>33</b>	<b>8.2</b>														<b>33</b>	<b>8.2</b>

Installation Schedule

	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In																				
Out						11	11	11												
						11	11	11												

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										33
Out										33

Exhibit P-3a Individual Modification  
 MODIFICATION TITLE: DIRCM (OSIP 010-08 )  
 MODELS OF SYSTEMS AFFECTED: CH-53D (36), CH-53E (152), MH-53E (31), 219 Total TYPE MODIFICATION: MISSION/PERFORMANCE SUSTAINMENT

DESCRIPTION/JUSTIFICATION: Currently, the H-53 has only IR detection equipment and rudimentary flares for use as CM. This funding is for ECP development, A-kit procurement and installation of a DIRCM system for H-53s. This system will help protect the H-53 which is highly susceptible to IR seeking manpads, the weapon of choice in all current theaters. This system has been found effective against fourth generation IR manpads, and is extremely effective earlier generation manpads.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Non-Recurring engineering for the CH-53E began in May 07 and concluded with a completed and verified TD in early FY09. T&E for the CH-53E began with risk-reduction testing in April 08 and will conclude with IOT&E in late FY09, reports for that testing is in work. Critical to early fielding was the Quick reaction assessment, completed in Aug 08 which lead to an Early Operational Capability decision in Nov 08. Validation & verification were conducted for the CH-53E between May - Sep 08. Non-Recurring engineering for the CH-53D began in May 08 and will conclude with a completed and verified TD in early FY10. T&E for the CH-53D will take place in late FY09/FY10. Fielding for the CH-53D will begin in FY10. DIRCM is being procured as a mission kit by PMA-272. All CH-53Ds & CH-53Es must be modified with an A-kit to accept the mission kit. Installations will surge in FY09 to achieve an EOC and then continue through FY14. MH-53E NRE is scheduled to begin in FY11.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
CH-53E Kits (Ph I)	16	4.7																	16	4.7	
CH-53E Kits (Ph II)	16	5.7																	16	5.7	
CH-53E Kits (LBAD) SUPP	14	3.6																	14	3.6	
CH-53E A Kits SUPP	14	2.9			11	3.1													25	6.0	
CH-53E Kits	8	2.4	20	4.1					3	0.4									31	6.8	
CH-53E Kits OCO			12	2.7			16	3.3											28	6.0	
CH-53D Kits	3	1.1																	3	1.1	
CH-53D Kits OCO							33	6.9											33	6.9	
MH-53 Kits															13	6.5			13	6.5	
DIRCM A Kits (Pax) SUPP	34	0.7																	34	0.7	
DIRCM A Kits (SUPP 1)	140	4.8																	140	4.8	
DIRCM TRUs			117	0.5															117	0.5	
Installation Kits N/R	3	5.8									1.3	2.2	0.6	0.9					3	10.8	
Installation Equipment																					
DIRCM B Kits (Phase I)	16	56.5																	16	56.5	
DIRCM B Kits (Phase II)	16	42.4																	16	42.4	
DIRCM B Kits (EGI)	64	5.0	55	4.4	19	1.5					6	0.5	14	1.1			61	4.9	219	17.4	
DIRCM B Kits (EGI) (OCO)			5	0.4															5	0.4	
Installation Equipment N/R																					
Engineering Change Orders																					
Data		0.3		0.2																0.5	
Training Equipment						0.5														0.5	
Support Equipment		1.3		0.7																2.0	
ILS						0.4														0.4	
Other Support		8.8		1.7		2.2		1.6		1.6		1.3		1.6		0.4		1.5		20.7	
Interim Contractor Support		6.0		*																6.0	
Installation Cost	3	2.6	26	6.7	54	4.3	53	1.9		3.6	3	2.7					31	4.4	170	26.2	
Installation Cost - OCO							7	10.9	26		16								49	10.9	
<b>Total Procurement</b>		<b>154.6</b>		<b>21.4</b>		<b>12.0</b>		<b>24.5</b>		<b>5.6</b>		<b>5.7</b>		<b>5.0</b>		<b>1.0</b>		<b>18.2</b>		<b>248.1</b>	

- Notes:  
 1. Totals may not add due to rounding  
 2. Asterisk indicates amount less than \$51K

**Exhibit P-3a**

MODELS OF SYSTEMS AFFECTED: CH-53D (36), CH-53E (152), MH-53E (31), 219 Total      MODIFICATION TITLE: DIRCM (OSIP 010-08)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Field Modification Teams

ADMINISTRATIVE LEADTIME: 7 Months      PRODUCTION LEADTIME: 8 Months

CONTRACT DATES:      FY 2009: Aug-09      FY 2010: Nov-09      FY 2011: Nov-10

DELIVERY DATE:      FY 2009: Apr-11      FY 2010: Feb-10      FY 2011: Feb-11

**FINANCIAL PLAN: (TOA, \$ in Millions)**

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL			
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$		
FY 2008 & PY (74) kits	3	2.6	26	6.7	45	3.0														74	12.3	
FY 2009 (32) kits					9	1.3	23	4.9													32	6.2
FY 2010 (30) kits							30	6.4													30	6.4
FY 2011 (49) kits							7	1.5	26	3.6	16	2.2									49	7.4
FY 2012 (3) kits											3	0.4									3	0.4
FY 2013 ( ) kits																						
FY 2014 ( ) kits																						
FY 2015 ( ) kits																						
To Complete (31) kits																		31	4.4		31	4.4
<b>TOTAL</b>	<b>3</b>	<b>2.6</b>	<b>26</b>	<b>6.7</b>	<b>54</b>	<b>4.3</b>	<b>60</b>	<b>12.8</b>	<b>26</b>	<b>3.6</b>	<b>19</b>	<b>2.7</b>					<b>31</b>	<b>4.4</b>		<b>219</b>	<b>37.1</b>	

**Installation Schedule**

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	3	5	6	6	9	9	15	15	15	15	15	15	15	6	6	7	7	5	5	5	4
Out	3	5	6	6	9	9	15	15	15	15	15	15	15	6	6	7	7	5	5	5	4

  

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In									31	219
Out									31	219

**Notes:**

- Quantity of 219 kits installed includes 182 A-kits procured in this OSIP, 3 kits procured with NRE, and 19 kits procured with FY10 OCO funding via BTR from PMA-272.
- Quantity of 25 kits installed in FY10 with FY09 supplemental funding.

Exhibit P-3a Individual Modification

MODIFICATION TITLE: H-53 HUD (OSIP 20-09)

MODELS OF SYSTEMS AFFECTED: CH-53D (36), CH-53E (152), MH-53E (31), 219 Total TYPE MODIFICATION: MISSION/PERFORMANCE SUSTAINMENT

DESCRIPTION/JUSTIFICATION: The integration of the ANVS Heads-up Display (HUD) system will provide a Visually Degraded Environment (VDE) solution for the CH-53. As currently fielded, the CH-53 cockpit configuration forces the flying pilot to break their visual scan of objects outside the aircraft in order to view critical flight and mission performance data such as power, altitude, and speed presented only on the instrument panel. With this integrated HUD system, all critical flight parameters are presented to the operator providing the pilot with the capability to continuously keep eyes on the target or landing zone. Additionally, with the integration of the Directed Infrared Counter Measures (DIRCM) system, the associated Embedded GPS / INS Laser Ring Gyro (EC) will provide real-time velocity and acceleration data. This data, when presented on the HUD, will significantly enhance operator situational awareness in the low airspeed flight regime – the flight condition where Degraded Visual Environments are encountered.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The ANVS HUD has been installed on the CH-53E for over a decade. This funds deployment of an additional mission kit providing HUD capability during daylight conditions. The first delivery of 20 Day HUD kits is scheduled for June, 2009 with delivery complete by September, 2009.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
CH-53D HUD Kit					36	0.3														36	0.3
Installation Kits N/R						1.2															1.2
Installation Equipment																					
HUD B kits			254	4.8																254	4.8
ANVIS-24 HUD P-kits					36	21.8														36	21.8
Installation Equipment N/R						0.8															0.8
Engineering Change Orders																					
Data						0.1															0.1
Training Equipment																					
Support Equipment																					
ILS						0.2															0.2
Other Support				0.2																	0.2
Interim Contractor Support																					
Installation Cost						0.6	36													36.0	0.6
<b>Total Procurement</b>				<b>5.0</b>		<b>25.0</b>															<b>30.0</b>

Notes:  
1. Totals may not add due to rounding

**Exhibit P-3a**

MODELS OF SYSTEMS AFFECTED: CH-53D (36) MODIFICATION TITLE: H-53 HUD (OSIP 20-09)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Field Modification Teams

ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 10 Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: Nov-09 FY 2011: \_\_\_\_\_

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: Sep-10 FY 2011: \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY ( ) kits																					
FY 2009 ( ) kits																					
FY 2010 (36) kits						0.6		36												36	0.6
FY 2011 ( ) kits																					
FY 2012 ( ) kits																					
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete ( ) kits																					
<b>TOTAL</b>						<b>0.6</b>		<b>36</b>												<b>36</b>	<b>0.6</b>

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In										18	18										
Out										18	18										

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										36
Out										36

Exhibit P-40, BUDGET ITEM JUSTIFICATION								DATE: February 2010					
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/APN-5 Aircraft Modifications							P-1 ITEM NOMENCLATURE 053000, SH-60 SERIES						
Program Element for Code B Items:							Other Related Program Elements						
	Prior Years	ID Code	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total
QTY		A											
COST (In Millions)	309.4	A	57.8	93.2	67.8	6.4	74.2	73.5	80.0	84.3	88.4	694.3	1,555.1
<p>DESCRIPTION: This line item funds modifications to H-60 series aircraft. The H-60 series program of record for modification is comprised of: 30 HH-60H, 138 SH-60B, 65 SH-60F, 173 MH-60S, 84 MH-60R. The HH-60H is a Combat Search and Rescue (CSAR) and Special Warfare Support (SWS) helicopter assigned to carrier airwings aboard Carrier Vessels (CV) and also in two reserve squadrons. The primary missions of the SH-60B are Anti-Submarine (ASW) and Surface Warfare (SUW). 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 MH-60S is the Fleet Combat Support (HC) Helicopter. The primary missions of the MH-60S are Vertical Replenishment (VERTREP), Search and Rescue (SAR), Organic AMCM (OAMCM), Surface Warfare (SUW), Extended Maritime Interdiction Operations (EMIO), and Navy Organic Combat Search and Rescue (CSAR). The MH-60R is the Multi-Mission Helicopter. The primary missions of the MH-60R are Under Sea Warfare (USW) and Surface Warfare (SUW). The overall goal of the modifications budgeted is for the Integrated Mechanical Diagnostic System (IMDS), Safety Related Systems Upgrade, AMCM/Armed Helo (Correction of Deficiencies) for the MH-60S, Armed Block I Upgrade for the MH-60R, H-60 Helicopter Visit, Board, Search, and Seizure (HVBSS), H-60 Overland Missions, SH-60B KG-45A, MH-60S Warfighting Capability, SH-60B Datalink (KuBand), MH-60R/S Crew Workload - Operator System Interface (OSI), and Automatic Radar Periscope Detection Discrimination (ARPDD). The specific modifications budgeted and programmed are:</p>													
(TOA, \$ in Millions)													
<u>OSIP No.</u>	<u>Description</u>	<u>Prior Years</u>	<u>FY2009</u>	<u>FY2010</u>	<u>Base FY2011</u>	<u>OCO FY2011</u>	<u>Total FY2011</u>	<u>FY2012</u>	<u>FY2013</u>	<u>FY2014</u>	<u>FY2015</u>	<u>To Complete</u>	<u>Total</u>
017-00	HELO INTG MECH DIAGN (IMDS)	26.8	0.9	0.3									27.9
009-03	SAFETY RELATED SYSTEM UPGRADE	36.7	1.5	4.6	4.4		4.4	4.4	4.1	3.1	1.8	3.9	64.5
016-04	MH-60S AMCM/ARMED HELO	21.2	6.6	9.3	5.4		5.4	0.9	0.4	0.8	0.3		44.9
001-06	MH-60R ARMED BLOCK I UPGRADE	27.2	21.5	31.0	21.5		21.5	23.5	13.9	17.8	13.7	27.7	197.6
008-07	H-60 HVBSS	13.9	3.1	11.2		6.4	6.4						34.7
009-07	MH-60S WARFIGHTING CAPABILITY	15.7	19.5	23.1	25.9		25.9	24.8	19.5	21.0	28.1	125.3	302.9
023-08	H-60 OVERLAND MISSIONS	4.7											4.7
008-09	SH-60B DATALINK		4.8	5.7	3.4		3.4						13.9
009-09	MH-60R/S CREW WORKLOAD - OSI			8.1	7.1		7.1	7.0	2.4			5.0	29.7
005-12	AUTOMATIC RADAR PERISCOPE DTN DSCMN							12.9	39.5	41.6	44.5	532.4	670.9
	INACTIVE OSIPS	163.3											163.3
<b>Total</b>		<b>309.4</b>	<b>57.8</b>	<b>93.2</b>	<b>67.8</b>	<b>6.4</b>	<b>74.2</b>	<b>73.5</b>	<b>80.0</b>	<b>84.3</b>	<b>88.4</b>	<b>694.3</b>	<b>1555.1</b>
Note: Totals may not add due to rounding.													

MODIFICATION TITLE:

SAFETY RELATED SYSTEM UPGRADE (OSIP 009-03)

MODELS OF SYSTEMS AFFECTED:

SH-60B, SH-60F, HH-60H, MH-60R, MH-60S

TYPE MODIFICATION:

OPERATIONAL ENHANCEMENT

DESCRIPTION/JUSTIFICATION: DESCRIPTION/JUSTIFICATION: (ALL TMS): Safety Related Systems Upgrade funds modifications to improve the safety of operating H-60 Series aircraft in all operations. In addition to those modifications specifically cited below, this OSIP provides the vehicle to expeditiously fund and correct H-60 Series airframe and avionics safety-related deficiencies (HR1 1-10). T700 Engine Safety Improvements (New White Harness) funds ECPs to provide encapsulated (waterproof) engine wire harness. In addition, troubleshoots T700 Engine problems unique to H-60 community and find fixes. The New White Harness will be installed two (2) per aircraft. Wide Field of Vision (FOV) Night Vision Device increases nighttime situational awareness and improving safety-of-forces. Emergency Locator Transmitter (ELT) Electro Magnetic Interference (EMI) Sleeves are required to protect the transmitters from inadvertent activation, which prevents a delay in rescue response time to a helicopter crash. New Torque Shaft and Lever Bearings are less prone to corrosion, which will reduce the chance of flight controls binding in flight. The Global Positioning System (GPS), navigation aides, provides an immediate interim solution to mitigate risk of controlled flight into obstacles and terrain for all T/M/S H-60 helicopters. These systems enhance aircrew situational awareness and an obstacle database.

DESCRIPTION / JUSTIFICATION (SH-60B, SH-60F, HH-60H): Stabilator Control System Redesign solved problems of uncommanded runaway without caution alerts. H-60 Lighted RAST Probe provides a luminescent messenger cable. Fast Tactical Imaging (FTI) Terminals and Imaging and Communications Environment (ICE) software allow H-60 H/B aircraft to link imagery and target data with Carrier Strike Group and Joint Special Operations forces, increasing battlefield situational awareness,improving safety-of-forces, and enhancing precision strike capability in close-air-support of Special Warfare forces. GAU-17 Weapon Assembly Mod funds (15) A-kits for HH-60H aircraft. Force XXXI Battle Command Brigade and Below (FBCB2) Blue Force Tracker (BFT) is a current theatre requirement for overland helicopter missions. FBCB2 BFT provides two-way, near-real-time friendly force and threat location and display, two-way text messaging, and tactical operation center support. System is designed to improve Commander and cockpit situational awareness to improve combat effectiveness and mitigate fratricide risks.

DESCRIPTION / JUSTIFICATION (MH-60S, MH60R): - 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. Force XXXI Battle Command Brigade and Below (FBCB2) Blue Force Tracker (BFT) is a current theatre requirement for overland helicopter missions. FBCB2 BFT provides two-way, near-real-time friendly force and threat location and display, two-way text messaging, and tactical operation center support. System is designed to improve Commander and cockpit situational awareness to improve combat effectiveness and mitigate fratricide risks.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: VAL/VER of the improved torque shaft bearings will be complete in 2011.  
METHOD OF IMPLEMENTATION: New White Harness, Fast Tactical Imaging are "O" Level Installs.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
H-60 HIGH SPEED SHAFT (ALL TMS)	685	8.4																	685	8.4	
H-60 LIGHTED RAST PROBE(SH-60B/F/HH-60H)	202	0.1																	202	0.1	
HH-60H GAU-17 Weapon Assembly Mod	15	0.2																	15	0.2	
HH-60H GUNNER BELTS (Webbing Retractors)	120	0.2																	120	0.2	
MH-60S GUNNER BELTS (Webbing Retractors)	116	0.2																	116	0.2	
NEW WHITE HARNESS (ALL TMS)	408	3.1			25	0.2													433	3.3	
SH-60B GUNNER BELTS (Webbing Retractors)	160	0.3																	160	0.3	
SH-60F GUNNER BELTS (Webbing Retractors)	222	0.4																	222	0.4	
WHITE HARNESS (ALL TMS)	548	0.2																	548	0.2	
BLUE FORCE TRACKER (BFT)	36	0.7																	36	0.7	
Installation Kits N/R		2.2		0.8																	3.0
Installation Equipment																					
HH-60H/SH-60B FAST TACTICAL IMAGING	54	0.5																	54	0.5	
MH-60S GPWS CARDS	128	0.7																	128	0.7	
MH-60S/MH-60R GUNNER BELTS	104	0.3																	104	0.3	
SH-60B/SH-60F/HH-60H GUNNER BELTS	78	0.2																	78	0.2	
SH-60B/SH-60F/HH-60H LIGHTED RAST PROBE	1	0.1																	1	0.1	
WIDE FOV NVG (ALL TMS)					62	2.7	52	3.0	52	2.9	48	2.6	30	1.7	20	1.1	69	3.9	333	17.9	
BLUE FORCE TRACKER (BFT)	36	1.8																	36	1.8	
EMI SLEEVE (ALL TMS)																					
GLOBAL POSITIONING SYSTEM (GPS)	200	0.7																	200	0.7	
Installation Equipment N/R		3.1																			3.1
Engineering Change Orders																					
SAFETY RELATED ECO																					0.0
Data		1.5																			1.5
Training Equipment		0.4																			0.4
Support Equipment																					
ILS		0.6				0.4															1.0
Other Support		9.7		0.7		1.3		1.4		1.4		1.5		1.5		0.8					18.2
Interim Contractor Support																					
Installation Cost	++ 252	0.8	++ 32																		284
<b>Total Procurement</b>		<b>36.7</b>		<b>1.5</b>		<b>4.6</b>		<b>4.4</b>		<b>4.4</b>		<b>4.1</b>		<b>3.1</b>		<b>1.8</b>		<b>3.9</b>		<b>-</b>	<b>64.5</b>

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than \$51K
3. \*\* FY07 BFT OCO (Overseas Contingency Operations) funding is applied to FY08 & FY09 Installations

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: HH-60H, MH-60S MODIFICATION TITLE: BLUE FORCE TRACKER (OSIP 09-03)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: CONTRACTOR FIELD MOD

ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 3 Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (36) kits	** 4	0.3	** 32																	36	0.3
FY 2009 ( ) kits																					
FY 2010 ( ) kits																					
FY 2011 ( ) kits																					
FY 2012 ( ) kits																					
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete ( ) kits																					
<b>TOTAL</b>	<b>** 4</b>	<b>0.3</b>	<b>** 32</b>																	<b>36</b>	<b>0.3</b>

Notes:

- 1. \*\* FY07 BFT OCO funding will be applied to FY08 & FY09 Installations

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In	4	12	12	8																		
Out	4	12	12	8																		

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										36
Out										36

Exhibit P-3a		Individual Modification																			
MODIFICATION TITLE:		MH-60S Armed Helo/AMCM (OSIP 016-04)																			
MODELS OF SYSTEMS AFFECTED:		MH-60S										TYPE MODIFICATION: OPERATIONAL ENHANCEMENT									
<p>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, Rotor System and Airframe, Night Vision Device Exterior Lighting and AMCM Mission Equipment. Current retrofit plan is as follows: The Aux Tank A kit will be retrofit on 50 aircraft. Aux Tank B kits (two tanks per kit) and AMCM Mission Equipment are not procured on a one for one basis with the A kit modifications. No install required. The Bifilar B Kit and Ultra Low Maintenance Battery will be retrofit as an "O" Level install on 50 aircraft. Night Vision Device Capable Aircraft Lighting will be retrofit on 137 Aircraft.</p> <p>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 capability was completed in the second quarter of FY 2005.</p> <p>FINANCIAL PLAN: (TOA, \$ in Millions)</p>																					
	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
Bifilar	50	2.6																		50	2.6
ECP 4000 Retrofit	31	8.0	8	2.2	10	2.9														49	13.1
NVD KITS	8	0.4	36	1.4	32	1.2	31	1.2	3	0.1	9	0.3	15	0.6						134	5.1
ULMB	26	0.6																		26	0.6
Installation Kits N/R		3.5		0.3																	3.8
Installation Equipment																					
AMCM MISSION EQUIP MODS	5	1.7	1	0.3	8	2.7	2	0.7												16	5.5
ARMED HELO KIT MODS	22	0.2																		22	0.2
AUX TANKS	20	2.8																		20	2.8
Installation Equipment N/R																					
Engineering Change Orders																					
Data																					
Training Equipment																					
Support Equipment																					
ILS																					
Other Support		0.2		0.3		0.2		0.2		*		0.1		0.1		0.1					1.0
Interim Contractor Support																					
Installation Cost	6	1.1	13	2.2	23	2.3	62	3.4	48	0.8	3		9	0.1	15	0.2				179	10.2
<b>Total Procurement</b>		<b>21.2</b>		<b>6.6</b>		<b>9.3</b>		<b>5.4</b>		<b>0.9</b>		<b>0.4</b>		<b>0.8</b>		<b>0.3</b>					<b>44.9</b>
Notes:																					
1. Totals may not add due to rounding																					
2. Asterisk indicates amount less than \$51K																					

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: MH-60S MODIFICATION TITLE: ECP 4000 kits (OSIP 016-04)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2009: Sep-09 FY 2010: Jan-10 FY 2011: \_\_\_\_\_

DELIVERY DATE: FY 2009: Sep-10 FY 2010: Jan-11 FY 2011: \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (27) kits	6	1.1	13	2.2	8	1.6														27	4.9
FY 2009 (8) kits					3	0.6	5	1.0												8	1.6
FY 2010 (10) kits							9	1.8	1	0.2										10	2.0
FY 2011 ( ) kits																					
FY 2012 ( ) kits																					
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete ( ) kits																					
<b>TOTAL</b>	<b>6</b>	<b>1.1</b>	<b>13</b>	<b>2.2</b>	<b>11</b>	<b>2.1</b>	<b>14</b>	<b>2.8</b>	<b>1</b>	<b>0.2</b>										<b>45</b>	<b>8.4</b>

Note: Four ECP 4000 kits installed as VALVER NRE  
 Totals may not add due to rounding

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In	6	2	5	6	2	3	3	3	3	3	4	3	4	1								
Out	4	2	2	5	6	2	3	3	3	3	4	3	4	1								

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										45
Out										45

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: MH-60S MODIFICATION TITLE: NVD Lighting (OSIP 016-04)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 11 Months

CONTRACT DATES: FY 2009: Jun-09 FY 2010: Jan-10 FY 2011: Nov-10

DELIVERY DATE: FY 2009: May-10 FY 2010: Dec-10 FY 2011: Oct-11

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (8) kits					8	0.1														8	0.1
FY 2009 (36) kits					4	0.1	32	0.4												36	0.5
FY 2010 (32) kits							16	0.2	16	0.2										32	0.4
FY 2011 (31) kits									31	0.4										31	0.4
FY 2012 (3) kits											3	*								3	*
FY 2013 (9) kits													9	0.1						9	0.1
FY 2014 (15) kits															15	0.2				15	0.2
FY 2015 ( ) kits																					
To Complete ( ) kits																					
<b>TOTAL</b>					<b>12</b>	<b>0.2</b>	<b>48</b>	<b>0.6</b>	<b>47</b>	<b>0.6</b>	<b>3</b>	<b>*</b>	<b>9</b>	<b>0.1</b>	<b>15</b>	<b>0.2</b>				<b>134</b>	<b>1.8</b>

Note:  
Totals may not add due to rounding

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In						6	6	12	12	12	12	12	12	12	12	12	11	1	1	1	1
Out						6	6	12	12	12	12	12	12	12	12	11	1	1	1	1	

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In	3	2	2	2	4	4	4	3		134
Out	3	2	2	2	4	4	4	3		134

Exhibit P-3a		Individual Modification																			
MODIFICATION TITLE:		MH-60R ARMED BLOCK I UPGRADE (OSIP 001-06)																			
MODELS OF SYSTEMS AFFECTED:		MH-60R										TYPE MODIFICATION: OPERATIONAL ENHANCEMENT									
<p>DESCRIPTION/JUSTIFICATION: This line item funds modifications to the MH-60R series aircraft. The modifications are part of the P3I effort that includes GPS SAASM, CDL HAWKLINK, IMDS, AVC, MTS FLIR, Digital Video Recorder (DVR) Acoustics Subsystem, and LINK-16 for LRIP I Aircraft and subsequent. Global Positioning System (GPS) upgrade includes Selective Availability Anti-Spoofing Module (SAASM) and GAS-1 antenna upgrade. 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. GAS-1 antenna upgrade to the GPS system improves susceptibility performance. 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 C-Band Hawklink and Common Data Link (CDL) Hawklink will support. CDL Hawklink is an update to the current C-Band Hawklink that allows for an increase in bandwidth with the ability to transfer additional data. MH-60R is required to be backward-compatible with both legacy Surface Fleet Combat Systems and forward-compatible with new and under-development Surface Fleet Combat Systems at relatively long-range of not only voice and video information, but large amounts of sensor and tactical data. It is compliant with the Assistant Secretary of Defense C3I Letter dated 18 October 2004 directing commonality and interoperability between all DOD airborne sensor platforms and meets the mandate for a common standard for transmission of unprocessed sensor information. The Integrated Mechanical Diagnostic System (IMDS) will improve aircraft performance and vibration parameters in flight. GPS SAASM, Link 16, CDL HAWKLINK, and IMDS are a part of the MH-60R Block Upgrades as specified in the evolutionary acquisition strategy for the program. The Acoustic Subsystem is a key component to meeting H60R ASW mission requirements. This OSIP includes updates to obsolete components of the Acoustic Subsystem. Acoustic subsystem consist of Acoustic Processor, ALFS Sonar Transmitter / Receiver, Reeling Machines, RMIU, RMCU, Transducer Assembly, and reel &amp; cable.</p> <p>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.</p> <p>METHOD OF IMPLEMENTATION: CDL HAWKLINK, Sonar Transducer Receiver (ST/R), GPS SAASM, and DVR are "O" Level Installs.</p>																					
FINANCIAL PLAN: (TOA, \$ in Millions)																					
	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
ACOUSTICS TECH INSERT KITS	7	0.6	7	0.8	15	1.7	7	0.8	10	1.2	3	0.4	5	0.6						54	6.0
AVC KITS					7	4.2														7	4.2
GPS SAASM KITS	13	0.2					18	0.8					20	0.9						51	1.9
IMDS KITS	2	0.3	10	2.2	12	3.0	17	4.7	12	3.7										53	14.0
CDL HAWKLINK KITS			10	6.4	13	6.6	11	5.4	5	2.5	11	5.7	12	6.5	12	6.6	3	1.7	77	41.5	
LINK-16 KITS	14	7.2	1	0.9	1	0.2											7	4.0	23	12.3	
SONAR TRANSDUCER RECEIVER (ST/R)					3	1.0														3	1.0
DIGITAL VIDEO RECORDER (DVR)	37	1.9			28	1.1														65	3.0
Installation Kits N/R		7.3		3.5																	10.8
Installation Equipment																					
GPS SAASM KITS	1	0.1																		1	0.1
ACOUSTICS TECH INSERT KITS	7	2.5	7	3.0	15	6.9	7	3.4	10	5.1	3	1.6	5	3.0						54	25.5
FORWARD LOOKING INFRARED RED (FLIR)	1	1.2	2	2.5														4	7.2	7	10.9
Installation Equipment N/R																					
Engineering Change Orders																					
Data		0.7																			0.7
Training Equipment																					
Support Equipment																		1	10.7	1	10.7
ILS																					
Other Support		0.9			0.3		0.7		0.2		0.1		0.2		1.3				0.4		4.1
Interim Contractor Support		3.2		2.1	2.6		1.9		2.6		2.6		2.6		2.6				2.6		22.8
Installation Cost																					
<b>Total Procurement</b>		<b>27.2</b>		<b>21.5</b>		<b>31.0</b>		<b>21.5</b>		<b>23.5</b>		<b>13.9</b>		<b>17.8</b>		<b>13.7</b>		<b>7</b>	<b>1.0</b>	<b>136</b>	<b>28.1</b>

Notes:  
 1. Totals may not add due to rounding  
 2. Asterisk indicates amount less than \$51K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: MH-60R MODIFICATION TITLE: ACOUSTICS TECH INSERT KITS (OSIP 001-06)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: CONTRACTOR FIELD MOD

ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 18 Months

CONTRACT DATES: FY 2009: Jun-09 FY 2010: Mar-10 FY 2011: Mar-11

DELIVERY DATE: FY 2009: Nov-10 FY 2010: Sep-11 FY 2011: Sep-12

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL			
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$		
FY 2008 & PY (7) kits					7	2.8														7	2.8	
FY 2009 (7) kits							7	2.8													7	2.8
FY 2010 (15) kits									15	6.0											15	6.0
FY 2011 (7) kits											7	2.8									7	2.8
FY 2012 (10) kits													10	4.0							10	4.0
FY 2013 (3) kits															3	1.2					3	1.2
FY 2014 (6) kits															5	2.0					5	2.0
FY 2015 ( ) kits																						
To Complete ( ) kits																						
<b>TOTAL</b>					<b>7</b>	<b>2.8</b>	<b>7</b>	<b>2.8</b>	<b>15</b>	<b>6.0</b>	<b>7</b>	<b>2.8</b>	<b>10</b>	<b>4.0</b>	<b>8</b>	<b>3.2</b>				<b>54</b>	<b>21.6</b>	

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In																						
Out							3	4	2	2	2	1	4	4	4	3	2	2	2	2	1	

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In	3	3	3	1	2	1	2	3		54
Out	3	3	3	1	2	1	2	3		54

**Exhibit P-3a**

MODELS OF SYSTEMS AFFECTED: MH-60R MODIFICATION TITLE: AVC KITS (OSIP 001-06)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: CONTRACTOR FIELD MOD

ADMINISTRATIVE LEADTIME: 11 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: Aug-10 FY 2011: \_\_\_\_\_

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: Aug-11 FY 2011: \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY ( ) kits																					
FY 2009 ( ) kits																					
FY 2010 (7) kits							1	0.2	6	1.1									7	1.3	
FY 2011 ( ) kits																					
FY 2012 ( ) kits																					
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete ( ) kits																					
<b>TOTAL</b>							<b>1</b>	<b>0.2</b>	<b>6</b>	<b>1.1</b>									<b>7</b>	<b>1.3</b>	

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In														1	2	2	2				
Out													1	2	2	2					

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										7
Out										7

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: MH-60R MODIFICATION TITLE: LINK-16 KITS (OSIP 001-06)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: CONTRACTOR FIELD MOD

ADMINISTRATIVE LEADTIME: 9 Months PRODUCTION LEADTIME: 9 Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: Jul-10 FY 2011: \_\_\_\_\_

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: Apr-11 FY 2011: \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (14) kits	14	0.9																		14	0.9
FY 2009 ( ) kits																					
FY 2010 (1) kits							1	0.1												1	0.1
FY 2011 ( ) kits																					
FY 2012 ( ) kits																					
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete (7) kits																		7	1.0	7	1.0
<b>TOTAL</b>	<b>14</b>	<b>0.9</b>					<b>1</b>	<b>0.1</b>										<b>7</b>	<b>1.0</b>	<b>22</b>	<b>2.0</b>

Note: FY09 A kit installed at O-level utilizing an existing acoustic rack.

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In	14											1										
Out	14											1										

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In									7	22
Out									7	22

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: MH-60R MODIFICATION TITLE: IMDS KITS (OSIP 01-06)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: CONTRACTOR FIELD MOD

ADMINISTRATIVE LEADTIME: 4 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2009: Sep-09 FY 2010: Jan-10 FY 2011: Jan-11

DELIVERY DATE: FY 2009: Aug-10 FY 2010: Dec-10 FY 2011: Dec-11

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2008 & PY (2) kits	1	0.1	1	0.1															2	0.2
FY 2009 (10) kits					10	0.6													10	0.6
FY 2010 (12) kits							12	0.7											12	0.7
FY 2011 (17) kits									17	1.0									17	1.0
FY 2012 (12) kits											12	0.7							12	0.7
FY 2013 ( ) kits																				
FY 2014 ( ) kits																				
FY 2015 ( ) kits																				
To Complete ( ) kits																				
<b>TOTAL</b>	<b>1</b>	<b>0.1</b>	<b>1</b>	<b>0.1</b>	<b>10</b>	<b>0.6</b>	<b>12</b>	<b>0.7</b>	<b>17</b>	<b>1.0</b>	<b>12</b>	<b>0.7</b>						<b>53</b>	<b>3.2</b>	

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	1				1				10		4	4	4		6	6	5		4	4	4
Out	1				1				5	5	1	4	4	3	2	6	6	3	1	4	4

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										53
Out	3									53

Exhibit P-3a

Individual Modification

MODIFICATION TITLE: H-60 HVBSS (OSIP 008-07)

MODELS OF SYSTEMS AFFECTED: SH-60B, SH-60F, HH-60H, MH-60R, MH-60S TYPE MODIFICATION: OPERATIONAL ENHANCEMENT

DESCRIPTION/JUSTIFICATION: Extended Maritime Interdiction by Helicopter Visit, Board, Search, and Seizure (HVBSS) tactics require Naval Helicopters be compatible with rapid insertion of Special Warfare forces. This OSIP includes all modifications that increase reliability, maintainability and/or mission capability for conduct of the EMIO mission. These modifications include but are not limited to: Fast Tactical imaging systems kits (44), which includes embedded Automated Identification System capability, will be procured for improved battlefield situational awareness for Command and Direct Action elements. Close Air Support improvements for accompanying assault SH-60B and HH-60H helicopters include (62) M240 7.62mm machine gun kits, replacing aging M-60D gun systems. Additional area suppression close air support improvements include (38) GAU-17 weapon kits and corresponding depot level airframe modifications to integrate the GAU-17 into the remaining HH-60H aircraft. Precise weapon aiming required to employ crew-served weapons in close quarters require the coincident procurement of (3) aiming laser systems to kit with each weapon. AAR-47A(V)2 Missile Warning Systems will be installed on SH-60B aircraft as an update to the current AAR-47(V), which will incorporate a new laser warning functionality. A modification to the aircraft must be made to allow for the installation of the new Control Indicator (CI), which will display the laser warning by angle of arrival. An YHS-60R test asset (BROME0) will be returned back to its original configuration as an SH-60B aircraft. This aircraft will be used in support of the HVBSS mission. A loudspeaker system will be attached to an SH-60F aircraft to aid in the HVBSS mission. In response to a Fleet urgent need statement, a COTS loudspeaker system was modified and installed on a Fleet SH-60F aircraft. Two Targeted High Output Responder (THOR) loudspeaker systems will be delivered to the Fleet in FY10.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: GAU-17/A, M-240D, Fast Tactical Imaging (FTI) SYSTEMS, IZLID-200 aiming lasers are systems integrated on other H-60 helicopter platforms and are off-the-shelf procurements. Lead time for all systems 30-90 days. TD for HH-60H modifications (AAC 993) signed 30 June 1994. AFC for O-level and D-level mods for SH-60B require 3-month development including prototyping. Completion of the first loudspeaker system installation is planned for October, 2009. BROME0 modifications planned to be completed by March, 2010.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total			
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$		
RDT&E																						
PROCUREMENT																						
Installation Kits																						
GAU-17 CABIN MOD (HH-60H)	7	0.1			30	3.9														37	4.0	
GAU-17 CABIN MOD (HH-60H) - OCO							30	3.9												30	3.9	
FTI/AIS (SH-60B/F, HH-60H, MH-60R/S)	70	0.8			58	1.0														128	1.9	
AAR-47A(V)2 (SH-60B)	117	0.2																			117	0.2
Installation Kits N/R		8.5				2.5																11.0
Installation Kits N/R - OCO								1.3														1.3
Installation Equipment																						
AIMING LASER (SH-60B,HH-60H)	3	*																			3	0.0
FTI/AIS (SH-60B/F, HH-60H, MH-60R/S)	70	1.1			58	1.3															128	2.4
GAU-17 (HH-60H)	13	0.5			18	0.8															31	1.3
GAU-17 (HH-60H) - OCO							18	0.8													18	0.8
M240 (SH-60B)	62	0.9																			62	0.9
Installation Equipment N/R		0.9		1.4																		2.2
Engineering Change Orders																						
Data		0.2				0.2																0.4
Training Equipment																						
Support Equipment																						
ILS																						
Other Support		0.1				0.1																0.2
Interim Contractor Support																						
Installation Cost	7	** 0.6	163	1.8	** 78	*** 1.3	*** 64	0.4													312	4.1
<b>Total Procurement</b>		<b>13.9</b>		<b>3.1</b>		<b>11.2</b>		<b>6.4</b>														<b>34.7</b>

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than \$51K
3. \*\*FY07 AIS OCO funding will be applied to 24 FY10 Installations
4. \*\*\*FY10 AIS OCO funding will be applied to 34 FY11 Installations

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: SH-60B MODIFICATION TITLE: FTI/AIS (OSIP 008-07)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: CONTRACTOR FIELD MOD

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 3 Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: Jan-10 FY 2011: \_\_\_\_\_

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: Mar-10 FY 2011: \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL			
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$		
FY 2008 & PY (70) kits		** 0.6	46	1.0	** 24															70	1.6	
FY 2009 ( ) kits																						
FY 2010 (58) kits					24	*** 0.9	*** 34														58	0.9
FY 2011 ( ) kits																						
FY 2012 ( ) kits																						
FY 2013 ( ) kits																						
FY 2014 ( ) kits																						
FY 2015 ( ) kits																						
To Complete ( ) kits																						
<b>TOTAL</b>		<b>** 0.6</b>	<b>46</b>	<b>1.0</b>	<b>** 48</b>	<b>0.9</b>	<b>*** 34</b>													<b>128</b>	<b>2.5</b>	

Notes:

- \*\*FY07 AIS OCO funding will be applied to 24 FY10 Installations
- \*\*\*FY10 AIS OCO funding will be applied to 34 FY11 Installations

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	11	11	12	12	12	12	12	12	12	12	12	10									
Out		11	11	12	12	12	12	12	12	12	12	10									

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										128
Out										128

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: SH-60B, HH-60H, SH-60F, MH-60R, MH-60S MODIFICATION TITLE: AAR-47 (OSIP 008-07)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: CONTRACTOR FIELD MOD

ADMINISTRATIVE LEADTIME: 9 Months PRODUCTION LEADTIME: 3 Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (117) kits			117	0.8																117	0.8
FY 2009 ( ) kits																					
FY 2010 ( ) kits																					
FY 2011 ( ) kits																					
FY 2012 ( ) kits																					
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete ( ) kits																					
TOTAL			117	0.8																117	0.8

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In		29	29	29	30																	
Out		29	29	29	30																	

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										117
Out										117

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: HH-60H MODIFICATION TITLE: GAU-17 (OSIP 008-07)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: CONTRACTOR FIELD MOD

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 3 Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: Jan-10 FY 2011: Nov-10

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: Mar-10 FY 2011: Feb-11

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2007 & PY ( ) kits																					
FY 2008 ( ) kits																					
FY 2009 ( ) kits																					
FY 2010 (30) kits					30	0.4														30	0.4
FY 2011 (30) kits							30	0.4												30	0.4
FY 2012 ( ) kits																					
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete ( ) kits																					
<b>TOTAL</b>					<b>30</b>	<b>0.4</b>	<b>30</b>	<b>0.4</b>											<b>60</b>	<b>0.8</b>	

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In						10	10	10	8	8	8	6									
Out							10	10	10	8	8	8	6								

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										60
Out										60

Exhibit P-3a		Individual Modification																			
MODIFICATION TITLE:		MH-60S WARFIGHTING CAPABILITY (OSIP 009-07)																			
MODELS OF SYSTEMS AFFECTED:		MH-60S									TYPE MODIFICATION:									OPERATIONAL ENHANCEMENT	
DESCRIPTION/JUSTIFICATION: Provides for the retrofit of ECP 4034 which includes two phases: Airborne Mine Countermeasures (AMCM) Block 2B (AMNS &ALMDS) & full 3B P3I effort includes: Link-16, DALs, SASSM, GAS-1, APCM, IFF and communication upgrades, airframe provisions into 67 Block 2A aircraft; ECP 4034 P3I Lite includes Communications Upgrades on 50 Block 1 aircraft; ECP-4015/Armed Helo Block 3A weapons airframe provision into 30 Block 2A aircraft; and Airframe provisions for Forward Firing Weapons (FFW). This OSIP also provides the retrofit of ECP 4012 and 4039 required for the aircraft structural loads imposed by the addition of the AMCM and Armed Helo capabilities. OSIP also provides retrofit of Active Vibration Control (AVC) in 137 MH-60S aircraft and Integrated Mechanical Diagnostics System (IMDS) in 127 MH-60S aircraft to achieve a common configuration for vibration and IMD. IMDS includes a crash survivable flight data recorder capability as well as the building block for Military Flight Operations Quality Assurance (MFOQA) capability.																					
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The MH-60S Aircraft completed MS III in August 2002. Armed Helo achieved IOC June 2007.																					
FINANCIAL PLAN: (TOA, \$ in Millions)																					
	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
ECP 4015 - Block 3A**	12	4.3	10	6.8	8	5.2														30	16.3
ECP 4034																					
Block 2B/Block 3B full P3I					10	4.4	8	3.6	8	3.7	8	3.7	6	2.8	8	3.9	20	9.7	68	31.8	
Block 3B P3I Lite					8	1.2	8	1.2	7	1.1	8	1.3	8	1.3	8	1.3			47	7.5	
ECP 4012**					24	0.1	14	0.1	12	0.6									50	0.7	
ECP 4039					4	0.3	8	0.7	7	0.6	8	0.7	14	1.3	16	1.5	32	3.1	89	8.2	
GPS GAS-1			25	1.2	21	1.0													46	2.3	
ECP 4046 AVC/DALS					4	1.3	8	2.6	7	2.3	8	2.7	14	4.7	16	5.5	81	28.8	138	47.8	
IMDS	4	0.8	14	2.9	9	1.9	11	2.4	7	1.5	4	0.9	4	0.9	15	3.5	95	22.8	163	37.6	
FFW							9	0.7	12	0.9	12	0.9	12	0.9	12	0.9			57	4.3	
Installation Kits N/R		9.4		6.2		0.5														16.0	
Installation Equipment																					
Installation Equipment N/R																					
Engineering Change Orders																					
Data								0.1												0.2	
Training Equipment																					
Support Equipment																					
ILS						0.1		0.1		0.1		-		-		-				0.4	
Other Support				0.3		0.1		0.4		0.2		0.2		0.2		0.2				1.5	
Interim Contractor Support																					
Installation Cost	2	1.1	4	2.1	61	6.9	94	14.1	54	13.8	43	9.1	29	8.9	32	11.3	247	60.9	566	128.2	
<b>Total Procurement</b>		<b>15.7</b>		<b>19.5</b>		<b>23.1</b>		<b>25.9</b>		<b>24.8</b>		<b>19.5</b>		<b>21.0</b>		<b>28.1</b>		<b>125.3</b>		<b>302.9</b>	

Notes:  
 1. Totals may not add due to rounding  
 2. Asterisk indicates amount less than \$51K  
 3. \*\* (6) ECP 4015 install and (34) 4012 installs do not require kit procurements  
 4. FFW installations are O level

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: MH-60S MODIFICATION TITLE: ECP 4015 Block 3A A-KITS (OSIP 009-07)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 20 Months

CONTRACT DATES: FY 2009: May-09 FY 2010: Jan-10 FY 2011: \_\_\_\_\_

DELIVERY DATE: FY 2009: Nov-10 FY 2010: Sep-11 FY 2011: \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL			
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$		
FY 2008 & PY (18) kits	2	1.1	4	2.1	10	5.0	2	1.0												18	9.3	
FY 2009 (10) kits							10	5.1													10	5.1
FY 2010 (8) kits									8	4.1											8	4.1
FY 2011 ( ) kits																						
FY 2012 ( ) kits																						
FY 2013 ( ) kits																						
FY 2014 ( ) kits																						
FY 2015 ( ) kits																						
To Complete ( ) kits																						
<b>TOTAL</b>	<b>2</b>	<b>1.1</b>	<b>4</b>	<b>2.1</b>	<b>10</b>	<b>5.0</b>	<b>12</b>	<b>6.1</b>	<b>8</b>	<b>4.1</b>										<b>36</b>	<b>18.5</b>	

Notes:

- Six Prior Year Kits available for FY08 and FY09 installs from missed Production installs - not procured with APN-5

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	2	1	1	1	1	2	2	3	3	3	3	3	3	3	3	2					
Out	1	2	1	1	1	2	2	3	3	3	3	3	3	3	3	2					

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										36
Out										36

**Exhibit P-3a**

MODELS OF SYSTEMS AFFECTED: MH-60S MODIFICATION TITLE: ECP 4034 - BLOCK 2B/3B Full P3I (OSIP 009-07)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 16 Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: Jan-10 FY 2011: Nov-10

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: May-11 FY 2011: Mar-12

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY ( ) kits																					
FY 2009 ( ) kits																					
FY 2010 (10) kits							10	4.2												10	4.2
FY 2011 (8) kits									8	3.4										8	3.4
FY 2012 (8) kits											8	3.4								8	3.4
FY 2013 (8) kits													8	3.5						8	3.5
FY 2014 (6) kits															6	2.7				6	2.7
FY 2015 (8) kits																	8	3.6		8	3.6
To Complete (20) kits																	20	8.9		20	8.9
<b>TOTAL</b>							<b>10</b>	<b>4.2</b>	<b>8</b>	<b>3.4</b>	<b>8</b>	<b>3.4</b>	<b>8</b>	<b>3.5</b>	<b>6</b>	<b>2.7</b>	<b>28</b>	<b>12.5</b>	<b>68</b>	<b>29.7</b>	

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In												5	5		2	3	3		2	3	3
Out											4	4	2	2	3	3			2	3	3

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In	2	3	3		2	2	2		28	68
Out	2	3	3		2	2	2		28	68

**Exhibit P-3a**

MODELS OF SYSTEMS AFFECTED: MH-60S MODIFICATION TITLE: ECP 4034 - Block 3B Partial P3I (OSIP 009-07)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: Jan-10 FY 2011: Nov-10

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: Jan-11 FY 2011: Nov-11

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL			
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$		
FY 2008 & PY ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 (8) kits							8	0.7												8	0.7	
FY 2011 (8) kits									8	0.7										8	0.7	
FY 2012 (7) kits											7	0.6								7	0.6	
FY 2013 (8) kits													8	0.7						8	0.7	
FY 2014 (8) kits															8	0.7				8	0.7	
FY 2015 (8) kits																	8	0.7		8	0.7	
To Complete ( ) kits																			8	0.7	8	0.7
<b>TOTAL</b>							<b>8</b>	<b>0.7</b>	<b>8</b>	<b>0.7</b>	<b>7</b>	<b>0.6</b>	<b>8</b>	<b>0.7</b>	<b>8</b>	<b>0.7</b>	<b>8</b>	<b>0.7</b>	<b>8</b>	<b>0.7</b>	<b>47</b>	<b>4.0</b>

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		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	2	2	2	2	1	2	2	2
Out										2	3	3	2	2	2	2	2	1	2	2	2

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In	2	2	2	2	2	2	2	2	8	47
Out	2	2	2	2	2	2	2	2	8	47

**Exhibit P-3a**

MODELS OF SYSTEMS AFFECTED: MH-60S MODIFICATION TITLE: ECP 4012 (OSIP 009-07)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 9 Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: Jan-10 FY 2011: Jan-11

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: Sep-10 FY 2011: Sep-11

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2008 & PY (18) kits					18	1.0													18	1.0
FY 2009 ( ) kits																				
FY 2010 (24) kits					2	0.1	22	1.2											24	1.3
FY 2011 (14) kits									12	0.7	2	0.1							14	0.8
FY 2012 (12) kits											12	0.7							12	0.7
FY 2013 ( ) kits																				
FY 2014 ( ) kits																				
FY 2015 ( ) kits																				
To Complete ( ) kits																				
<b>TOTAL</b>					<b>20</b>	<b>1.1</b>	<b>22</b>	<b>1.2</b>	<b>12</b>	<b>0.7</b>	<b>14</b>	<b>0.8</b>						<b>68</b>	<b>3.8</b>	

Note: ECP 4039 prior year Install Kits available from vendor for 18 installs. Not procured with APN-5.

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In						5	5	5	5	5	5	6	6	3	3	3	3	4	4	3	3
Out						5	5	5	5	5	5	6	6	3	3	3	3	4	4	3	3

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										68
Out										68

**Exhibit P-3a**

MODELS OF SYSTEMS AFFECTED: MH-60S MODIFICATION TITLE: ECP 4039 /ECP 4046 AVC/ DAL5 (OSIP 009-07)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 18 Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: Mar-10 FY 2011: Nov-10

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: Sep-11 FY 2011: May-12

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY ( ) kits																					
FY 2009 ( ) kits																					
FY 2010 (4) kits									4	2.1										4	2.1
FY 2011 (8) kits									4	2.1	4	2.1								8	4.2
FY 2012 (7) kits											3	1.6	4	2.1						7	3.7
FY 2013 (8) kits													4	2.1	4	2.2				8	4.3
FY 2014 (14) kits															10	5.4	4	2.2		14	7.7
FY 2015 (16) kits																	16	8.9		16	8.9
To Complete (81) kits																	81	27.2		81	27.2
<b>TOTAL</b>									<b>8</b>	<b>4.1</b>	<b>7</b>	<b>3.7</b>	<b>8</b>	<b>4.3</b>	<b>14</b>	<b>7.6</b>	<b>101</b>	<b>38.3</b>	<b>138</b>	<b>58.0</b>	

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		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	2	2	2	1
Out														2	2	2	2	2	2	2	1

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In	2	2	2	2	2	2	5	5	101	138
Out	2	2	2	2	2	2	5	5	101	138

**Exhibit P-3a**

MODELS OF SYSTEMS AFFECTED: MH-60S MODIFICATION TITLE: GPS GAS-1 ANTENNA (OSIP 009-07)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 10 Months

CONTRACT DATES: FY 2009: Jun-09 FY 2010: Jan-10 FY 2011: \_\_\_\_\_

DELIVERY DATE: FY 2009: Apr-10 FY 2010: Nov-10 FY 2011: \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY ( ) kits																					
FY 2009 (25) kits					25	0.3														25	0.3
FY 2010 (21) kits							21	0.3												21	0.3
FY 2011 ( ) kits																					
FY 2012 ( ) kits																					
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete ( ) kits																					
<b>TOTAL</b>					<b>25</b>	<b>0.3</b>	<b>21</b>	<b>0.3</b>											<b>46</b>	<b>0.6</b>	

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In								12	13	5	6	5	5								
Out								12	13	5	6	5	5								

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										46
Out										46

**Exhibit P-3a**

MODELS OF SYSTEMS AFFECTED: MH-60S MODIFICATION TITLE: IMDS A KITS OSIP (009-07)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 4 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2009: Sep-09 FY 2010: Jan-10 FY 2011: Jan-11

DELIVERY DATE: FY 2009: Aug-10 FY 2010: Dec-10 FY 2011: Dec-11

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (4) kits					4	0.3														4	0.3
FY 2009 (14) kits					2	0.2	12	0.9												14	1.1
FY 2010 (9) kits							9	0.7												9	0.7
FY 2011 (11) kits									10	0.8	1	0.1								11	0.9
FY 2012 (7) kits											6	0.5	1	0.1						7	0.6
FY 2013 (4) kits													4	0.3						4	0.3
FY 2014 (4) kits															4	0.3				4	0.3
FY 2015 (15) kits																	15	1.3		15	1.3
To Complete (95) kits																	95	8.2		95	8.2
<b>TOTAL</b>					<b>6</b>	<b>0.5</b>	<b>21</b>	<b>1.6</b>	<b>10</b>	<b>0.8</b>	<b>7</b>	<b>0.6</b>	<b>5</b>	<b>0.4</b>	<b>4</b>	<b>0.3</b>	<b>110</b>	<b>9.4</b>	<b>163</b>	<b>13.5</b>	

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In									6	6	6	5	4		3	4	3			3	2	2
Out								2	6	6	6	6	6	1	3	4	3			3	2	2

	FY 2014				FY 2015				To Complete	Total	
	1	2	3	4	1	2	3	4			
In			3	2			2	2		110	163
Out			3	2			2	2		110	163

Exhibit P-3a	Individual Modification																																																																																																																																																																																																																																																																																																																																																																																																																															
MODIFICATION TITLE:	<u>SH-60B DATALINK (OSIP 008-09)</u>																																																																																																																																																																																																																																																																																																																																																																																																																															
MODELS OF SYSTEMS AFFECTED:	<u>SH-60B</u> <span style="float: right;">TYPE MODIFICATION: <u>OPERATIONAL ENHANCEMENT</u></span>																																																																																																																																																																																																																																																																																																																																																																																																																															
<p>DESCRIPTION/JUSTIFICATION: The SH-60B currently has a C-Band data link (Hawklink) to transmit data between aircraft and ship. The Littoral Combat Ship (LCS) will be built with a new data link system, Ku Band, which is not compatible with the C-Band. The installation of the Tactical Common Data Link (TCDL) kits on SH-60B aircraft are required to support the LCS during a limited time-frame - from FY09 to FY13 - after which, it is expected that the MH-60R aircraft will be available to support the LCS. The SH-60B TC DL will support the relatively short-range transmission of voice and video information with a limited amount of tactical data. The funding in this OSIP will provide the procurement of 30 SH-60B Ku Band B-kit modifications and 10 Fast Tactical Imaging B-kits to be compatible and interoperable with LCS. The new Ku Band data link will transfer data from the SH-60B to the LCS to meet LCS Anti-Submarine Warfare (ASW) and Surface Warfare (SUW) mission requirements. The kits will be installed by "O" level.</p>																																																																																																																																																																																																																																																																																																																																																																																																																																
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<td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Installation Kits N/R</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Installation Equipment</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Fast Tactical Imaging (FTI)</td> <td></td><td></td><td></td><td></td><td>5</td><td>0.2</td><td>5</td><td>0.2</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>10</td><td>0.4</td> </tr> <tr> <td>Common Data Link (CDL)</td> <td></td><td></td><td>10</td><td>4.4</td><td>14</td><td>3.7</td><td>6</td><td>1.6</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>30</td><td>9.7</td> </tr> <tr> <td>Installation Equipment N/R</td> <td></td><td></td><td></td><td>0.2</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.2</td> </tr> <tr> <td>Engineering Change Orders</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Data</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Training Equipment</td> <td></td><td></td><td></td><td></td><td></td><td>0.1</td><td></td><td>0.1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.2</td> </tr> <tr> <td>Support Equipment</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>ILS</td> <td></td><td></td><td></td><td></td><td></td><td>1.1</td><td></td><td>0.9</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>2.0</td> </tr> <tr> <td>Other Support</td> <td></td><td></td><td></td><td>0.1</td><td></td><td>0.5</td><td></td><td>0.6</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>1.3</td> </tr> <tr> <td>Interim Contractor Support</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Installation Cost</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td><b>Total Procurement</b></td> <td></td><td></td><td></td><td><b>4.8</b></td><td></td><td><b>5.7</b></td><td></td><td><b>3.4</b></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td><b>13.9</b></td> </tr> </tbody> </table>		Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		Qty	\$	RDT&E																						PROCUREMENT																						Installation Kits																						Installation Kits N/R																						Installation 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<b>Total Procurement</b>				<b>4.8</b>		<b>5.7</b>		<b>3.4</b>													<b>13.9</b>																																																																																																																																																																																																																																																																																																																																																																																																											
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MODIFICATION TITLE:	<u>MH-60R/S CREW WORKLOAD - OPERATOR SYSTEM INTERFACE (OSIP 009-09)</u>																																																																																																																																																																																																																																																																																																																																																																																																																															
MODELS OF SYSTEMS AFFECTED:	<u>MH-60R, MH-60S</u> <span style="float: right;">TYPE MODIFICATION: <u>OPERATIONAL ENHANCEMENT</u></span>																																																																																																																																																																																																																																																																																																																																																																																																																															
DESCRIPTION/JUSTIFICATION: This effort reduces crew Operator System Interface (OSI) workload issues for MH-60R and MH-60S aircraft by replacing operator keysets with Control Display Units (CDU's) and hand controllers in addition to upgrading OSI software to a Windows-like system. The OSI kit includes a CDU, Pointing Device, and Interface Cabling Kit. This effort corrects deficiencies identified during OPEVAL of the MH-60R. MH-60R requires 3 OSI kits per aircraft and MH-60S requires 2 OSI kits per aircraft.																																																																																																																																																																																																																																																																																																																																																																																																																																
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: MH-60S aircraft completed OPEVAL in Mar 2002 and MS III in Aug 2002. MH-60R completed OPEVAL in Sep 2005 and MS III in Mar 06. NRE for Production incorporation of the OSI was funded in FY07, with production cut-in LOT 12 for MH-60S and LOT 7 for MH-60R.																																																																																																																																																																																																																																																																																																																																																																																																																																
METHOD OF IMPLEMENTATION: OSI is an "O" Level Install.																																																																																																																																																																																																																																																																																																																																																																																																																																
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Exhibit P-40, BUDGET ITEM JUSTIFICATION							DATE: February 2010						
APPROPRIATION/BUDGET ACTIVITY							P-1 ITEM NOMENCLATURE						
Aircraft Procurement, Navy/APN-5 Aircraft Modifications							053200, H-1 SERIES						
Program Element for Code B Items:							Other Related Program Elements						
	Prior Years	ID Code	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total
QTY		A											
COST (In Millions)	227.2	A	8.8	31.2	3.1	0.0	3.1	11.4	6.7	25.9	11.5	138.2	464.1
<p>DESCRIPTION: There are 59 H-1N's, 53 H-1Y's in the UH configuration, 3 H-1N's in the HH configuration, and 22 H-1Z's in the AH configuration for a total of 137. The total procurement goal for the UH-1Y is 123 and for the AH-1Z is 226, for a total of 349 H-1's. The UH-1 provides command and control and combat assault support under day/night and adverse weather conditions. Additional UH-1 missions include special operations support, controls/coordination/guidance of supporting fire and aeromedical evacuation. The HH configured aircraft provide local civilian and military search and rescue support, as well as augmenting Department of Homeland Security resources. The AH-1Z is a tandem seat, two place attack helicopter. The armament of the AH-1Z includes the SIDEWINDER, HELLFIRE missile systems, a chin-mounted 20mm turret gun, and wide variety of forward firing and gravity released external stores. The overall goal of the modifications budgeted in FY2011 is to eliminate safety hazards, improve survivability, fulfill operational requirements, remedy obsolescence and maintain significant mission capability. Additionally, the H-1 will continue to upgrade the applicable Aircraft sensor and avionics systems and subsystems as well as the rocket delivery system which includes the Advance Precision Kill Weapon System (APKWS). These platforms will continue to fulfill the operational requirements 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 system's laser ranging and designating system.</p>													
(TOA, \$ in Millions)													
OSIP No.	Description	Prior Years	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total
031-92	UH-1 NTIS	188.6	6.3	19.5	2.8	0.0	2.8	11.1	6.4	16.3	3.7	58.9	313.8
018-98	H-1N SAFETY UPGRADES	30.7	0.2	0.3	0.3	0.0	0.3	0.3	0.3	0.3	0.3		32.7
021-07	CRITICAL SYSTEMS IMPROVEMENT	0.8	2.3	11.5	0.0	0.0	0.0	0.0	0.0	9.3	7.5	79.3	110.5
	INACTIVE OSIPs	7.1											7.1
<b>Total</b>		<b>227.2</b>	<b>8.8</b>	<b>31.2</b>	<b>3.1</b>	<b>0.0</b>	<b>3.1</b>	<b>11.4</b>	<b>6.7</b>	<b>25.9</b>	<b>11.5</b>	<b>138.2</b>	<b>464.1</b>
Note: Totals may not add due to rounding.													

Exhibit P-3a

Individual Modification

MODIFICATION TITLE: UH-1 NTIS (OSIP 031-92)

MODELS OF SYSTEMS AFFECTED: UH-1N/UH-1Y, ASSOCIATED TRAINERS AND LABS TYPE MODIFICATION: SAFETY

DESCRIPTION/JUSTIFICATION: Solution Planning Directive (serial number C14, dated 26 June 2007) and Capabilities Production Document (CPD) (approved 11 June 2007, JROCM 138-07) states that the UH-1 requires a Navigational Thermal Imaging System (NTIS) to provide the U.S. Marine Corps with a day/night warfighting capability in all weather conditions. 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-1 aircraft cockpit. The NTIS System is comprised of 5 components: Turret FLIR Unit (TFU), Central Electronics Units (CEU), Hand Control Unit (HCU), Thermal Image Recorder (TIR), and the Video Display Unit (VDU). The NTIS is installed on 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 in FY97, the NTIS was upgraded from 1st generation to 3rd generation Forward Looking Infrared (FLIR) technology. The commercial-off-the-shelf (COTS) Star SAFIR modification consisted of a 3-5 micron focal plane array detector, an eye safe LRF and improved optics. Additionally, the NTIS is upgraded with a new Thermal Imaging Recorder (TIR) with mount and a Flat Panel Display replacement for the VDU due to a fire hazard. In FY03 the additional modifications to the NTIS were incorporated in order to add a Laser Designator/Laser Pointer capability (BRITE Star I/II), closed captioned device (CCD) (camera), and a new Universal Hand Control Unit (UHCU). The BRITE Star Block II incorporated a new laser pointer, color CCD camera, laser pump diode laser designator (LDR)/LRF, auto focus, and optics (large focal plane array). The LDS capability was a threshold requirement. Additional reliability and maintenance upgrades, including replacement of the existing TIR with a Digital Thermal Imaging Recorder, to the NTIS components and VDU (UH-1N only) will also be incorporated. BRITE Star Block II integration into the UH-1Y started in FY08.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The completion of COTS post Milestone II testing of the Laser Designator (BRITE Star) completed in FY03. Initial fielding of BRITE Star I completed in FY06. BRITE Star II development and test completed in FY08. The BRITE Star Block II received a Full Rate Production (FRP) decision Aug 08. The UH-1Y FOT&E is scheduled for the 4th QTR in FY09.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
AFC-278 A KIT (CONTRACTOR)	105	2.6																	105	2.6	
AFC-334 TIR	105	0.1																		105	0.1
AFC-364 (BRITE Star)	99	0.4																		99	0.4
AFC-396 (UH-1Y)	16	0.3	18	0.4	14	0.3	16	0.3	16	0.3	16	0.3	16	0.3			17	0.5	129	2.8	
Installation Kits N/R		5.6				0.3		0.3		0.4		0.4		0.4				0.7			8.0
Installation Equipment																					
BRITE Star I	38	24.1																		38	24.1
BRITE Star II (UH-1Y)	75	72.2	5	4.4	15	13.2			10	8.8	6	5.3	10	8.8			8	7.0	129	119.7	
Laser Spot Trackers													10	1.6			119	19.1	129	20.7	
Flat Panel Display	91	0.9																		91	0.9
NTIS System (GFE)	84	29.7																		84	29.7
NTIS Upgrade	90	29.3																		90	29.3
TIR (GFE)	107	1.0																		107	1.0
Installation Equipment N/R		0.6				0.6			0.6											1.3	3.0
Laser Spot Trackers													0.5		0.5			3.0			4.0
Engineering Change Orders													1.3		0.9						2.2
Data		0.5				0.2												0.8			1.4
Training Equipment	8	1.7			2	2.2							1	1.2			6	8.0	17	13.1	
Support Equipment	3	1.1																		3	1.1
ILS		1.1				0.2		0.3					0.3		0.3			1.7			3.9
Other Support		13.9		1.3		2.2		1.6		0.7		0.1		1.5		2.0		16.4			39.7
Interim Contractor Support																					
Installation Cost	207	3.8	18	0.3	14	0.3	16	0.3	16	0.3	16	0.3	16	0.3			17	0.4	320	6.0	
<b>Total Procurement</b>		<b>188.6</b>		<b>6.3</b>		<b>19.5</b>		<b>2.8</b>		<b>11.1</b>		<b>6.4</b>		<b>16.3</b>		<b>3.7</b>		<b>58.9</b>		<b>313.8</b>	

Notes:

1. Totals may not add due to rounding.
2. AFC-396 UH-1Y will be configured to fly with any of the three existing sensors; STAR Safire, BRITE Star Block I or BRITE Star Block II.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: UH-1N/UH-1Y, ASSOCIATED TRAINERS AND LABS      MODIFICATION TITLE: BRITE STAR II/UH-1Y (OSIP 031-92)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: CONTRACTOR FIELD MOD TEAM

ADMINISTRATIVE LEADTIME: 0 Months      PRODUCTION LEADTIME: 0 Months

CONTRACT DATES:      FY 2009: Oct-08      FY 2010: Oct-09      FY 2011: Oct-10

DELIVERY DATE:      FY 2009: Oct-08      FY 2010: Oct-09      FY 2011: Oct-10

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (16) kits	16	0.3																		16	0.3
FY 2009 (18) kits			18	0.3																18	0.3
FY 2010 (14) kits					14	0.3														14	0.3
FY 2011 (16) kits							16	0.3												16	0.3
FY 2012 (16) kits									16	0.3										16	0.3
FY 2013 (16) kits											16	0.3								16	0.3
FY 2014 (16) kits													16	0.3						16	0.3
FY 2015 ( ) kits																					
To Complete (17) kits																	17	0.4		17	0.4
<b>TOTAL</b>	<b>16</b>	<b>0.3</b>	<b>18</b>	<b>0.3</b>	<b>14</b>	<b>0.3</b>	<b>16</b>	<b>0.3</b>	<b>16</b>	<b>0.3</b>	<b>16</b>	<b>0.3</b>	<b>16</b>	<b>0.3</b>			<b>17</b>	<b>0.4</b>	<b>129</b>	<b>2.6</b>	

Installation Schedule

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In	16	5	5	4	4	4	4	3	3	4	4	4	4	4	4	4	4	4	4	4	4
Out	16	5	5	4	4	4	4	3	3	4	4	4	4	4	4	4	4	4	4	4	4

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In	4	4	4	4					17	129
Out	4	4	4	4					17	129

Exhibit P-3a

Individual Modification

MODIFICATION TITLE: H-1 CRITICAL SYSTEMS IMPROVEMENT PROGRAM (OSIP 021-07)

MODELS OF SYSTEMS AFFECTED: UH-1Y/AH-1Z TYPE MODIFICATION: READINESS IMPROVEMENT/SAFETY OF FLIGHT COMBAT EFFECTIVENESS

DESCRIPTION/JUSTIFICATION: The purpose of this program is to incorporate a number of cost effective changes to the UH-1Y and AH-1Z helicopters, specifically targeting improvements to safety of flight, maintenance, obsolescence (Diminishing Manufacturing Sources/Material Shortages), and readiness degrader items. These improvements are a vital element of the H-1 Upgrades program, significantly enhancing the strategy of a more ready, more capable H-1 force to accomplish the successful fielding and maintaining of this new capability to the Warfighter in support of Overseas Contingency Operations (OCO). The increased readiness and capabilities that will be realized support the tenets of Sea Power 21, specifically operational availability, enhanced capabilities, and interoperability. Planned improvements under this OSIP cover airframe, propulsion, helmet, weapons systems, survivability, reliability & maintainability, weight & balance, and avionics related subsystems. The OSIP intends to utilize upgrades to existing technology to the maximum extent practicable to minimize development and procurement costs, and to reduce the time to field the improved systems. The system identified for improvement in the OSIP are the Digital Map, Crash Survivable Flight Incident Recorder, ARC-210 Radio, Blue Force Tracker, Software System Configuration Set 07, Command and Control Consoles, Correction of Deficiencies, SATCOM Antenna Placement and Rocket Envelope Expansion. Additionally, systems being evaluated for replacement include support equipment (blade fold rack), avionics subsystems, sensors, Data Link, armor, communication systems, Missile Warning and Radar Detection Systems, Digital Video Recorder, Mission Computer Upgrades and increased aircraft electrical power availability system. Other survivability efforts covered by this OSIP include: IR Signature Reduction (IR Suppressors, Turned Exhaust), upgrades to existing EW Suites equipment which includes AN/AAR-47, ALE-47, ALQ-144 and implementation of improved armor technologies including, but not limited to, transparent armor, armored panels and crew weapons mounts which enhances Aircraft/Aircrew survivability. Additional improvements planned under this OSIP includes future improvements in turned exhaust system, Directed Infrared Counter Measures (DIRCM), and Joint and Allied Threat Awareness System (JATAS). The addition of these systems requires a more robust electrical distribution system and upgrades to platform software.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: This modification makes maximum use of existing technologies that have been installed on the AH-1W and HH/UH-1N platforms, and other fielded USN or USMC platforms.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
Antenna Relocation Wiring/Hardware			12	0.1																12	0.1
Antenna Relocation Wiring/Hardware-OCO					30	2.3														30	2.3
Digital Map												40	2.0	40	2.0	95	5.5			175	9.5
System Configuration Set 7.0												32	1.4	41	1.8	102	4.8			175	8.0
Correction of OT Deficiencies																153	9.0			153	9.0
ARC-210												40	0.1	33	0.1	80	2.0			153	2.2
Blue Force Tracker																153	8.6			153	8.6
Installation Kits N/R																					
Installation Equipment																					
SATCOM Antenna AV2091			12	0.1																12	0.1
SATCOM Antenna AV2091-OCO					30	5.3														30	5.3
Redesign Slipping and Standpipe			12	0.4																12	0.4
Command and Control Consoles			10	0.2																10	0.2
Command and Control Consoles-OCO					39	0.8														39	0.8
Correction of OT Deficiencies			30	1.3												153	8.9			183	10.2
ARC-210												40	3.0	33	2.1	80	6.1			153	11.2
Blue Force Tracker																153	8.9			153	8.9
Installation Equipment N/R																				9.2	9.2
Engineering Change Orders			0.1																	1.2	1.3
Data-OCO						0.1															0.1
Training Equipment	2	0.6											1.7						2.0	2	4.3
Support Equipment			10	0.2																10	0.2
ILS																0.2				4.6	4.8
ILS-OCO						0.5															0.5
Other Support				0.1		0.1							1.1		1.3				8.5		11.0
Other Support-OCO						0.6															0.6
Interim Contractor Support																					
Installation Cost	2	0.1			12	0.1														14	0.2
Installation Cost-OCO						1.6	30													30	1.6
<b>Total Procurement</b>		<b>0.8</b>		<b>2.3</b>		<b>11.5</b>							<b>9.3</b>		<b>7.5</b>				<b>79.3</b>		<b>110.5</b>

1. Totals may not add due to rounding.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: UH-1Y MODIFICATION TITLE: H-1 SYSTEM IMPROVEMENT PROGRAM (OSIP 021-07) SATCOM ANTENNA RELOCATION

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: CONTRACTOR FIELD MOD TEAM

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 9 Months

CONTRACT DATES: FY 2009: Dec-08 FY 2010: Dec-09 FY 2011: N/A

DELIVERY DATE: FY 2009: Dec-09 FY 2010: Dec-10 FY 2011: N/A

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (2) kits	2	0.1																		2	0.1
FY 2009 (12) kits					12	0.1														12	0.1
FY 2010 (30) kits - OCO						1.6	30													30	1.6
FY 2011 ( ) kits																					
FY 2012 ( ) kits																					
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete ( ) kits																					
<b>TOTAL</b>	<b>2</b>	<b>0.1</b>			<b>12</b>	<b>1.8</b>	<b>30</b>													<b>44</b>	<b>1.9</b>

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In	2					2	3	3	4	7	7	8	8									
Out	2					2	3	3	4	7	7	8	8									

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										44
Out										44

Exhibit P-40, BUDGET ITEM JUSTIFICATION							DATE: February 2010						
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/APN-5 Aircraft Modifications							P-1 ITEM NOMENCLATURE 053700, EP-3 SERIES						
Program Element for Code B Items:							Other Related Program Elements						
	Prior Years	ID Code	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total
QTY		A											
COST (In Millions)	715.3	A	64.5	92.2	90.3		90.3	89.6	81.9	84.7	76.0	75.6	1,370.1
<p>DESCRIPTION:</p> <p>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 communications.</p> <p>In OSIP 11-01, the Spiral 1 kit improves operational capability and aircrew productivity by expanding the Electronic Support Measures (ESM) frequency coverage, applying 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 kit provides for improved information fusion/decision-making capabilities. Spiral 3 procurement begins in FY11 with Low Band Communication System Upgrades, Environmental Control System (ECS) Upgrades and the replacement of aging and obsolescence aircraft antenna arrays. OSIP 007-09 Recapitalization Capabilities Migration (RCM) procures capabilities to ensure EP-3E relevance beyond FY20 and procures follow-on capabilities to be migrated to the recap platform. OSIP 014-05 responds to the current, immediate demand for electronic attack capabilities on the EP-3E in Overseas Contingency Operations (OCO) and had been funded via the Emergency Supplemental Appropriation for Defense (ESAD).</p> <p>Research and Development is funded with National Security Agency (NSA) Military Intelligence Program (MIP) funds. This OSIP provides the procurement tail for RDT&amp;E funds from the Navy's Advanced Signal Recognition project (PE 0305206N). The NSA RDT&amp;E line for the Navy Airborne Sensor System Improvements funds sensor improvements with application for the EP-3E. MIP RDT&amp;E 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 Primary Aircraft Authorization (PAA) inventory is 12 with a Backup Aircraft Authorization (BAA) inventory of 4 for a total of 16 aircraft with the completion of OSIP 29-00. Funds budgeted in FY2010-FY2015 are to continue EP-3E Joint Airborne Signal Intelligence (SIGINT) Architecture (JASA) Modification (JMOD) Common Configuration (JCC) Program. The EP-3E has an average age of 36.8 years. The EP-3E service life will be managed through Special Structural Inspection - Kits (SSI-Ks) in the P3 Series Modification program (BLI 0538, OSIP 005-05).</p>													
(TOA, \$ in Millions)													
<u>OSIP No.</u>	<u>Description</u>	<u>Prior Years</u>	<u>FY2009</u>	<u>FY2010</u>	<u>Base FY2011</u>	<u>OCO FY2011</u>	<u>Total FY2011</u>	<u>FY2012</u>	<u>FY2013</u>	<u>FY2014</u>	<u>FY2015</u>	<u>To Complete</u>	<u>Total</u>
011-01	JSAF MODIFICATION (JMOD)	332.5	28.3	57.2	82.3	-	82.3	87.6	79.9	82.7	74.0	68.6	893.1
014-05	EP-3E INFO OPERATIONS	64.2	17.8	1.5	-	-	-	-	-	-	-	-	83.5
007-09	EP-3E RECAPITALIZATION CAP.		18.3	33.5	8.0	-	8.0	2.0	2.0	2.0	2.0	7.0	74.9
	INACTIVE OSIPS	318.6											318.6
													-
													-
<b>Total</b>		<b>715.3</b>	<b>64.5</b>	<b>92.2</b>	<b>90.3</b>	<b>-</b>	<b>90.3</b>	<b>89.6</b>	<b>81.9</b>	<b>84.7</b>	<b>76.0</b>	<b>75.6</b>	<b>1,370.1</b>
Note: Totals may not add due to rounding.													

Exhibit P-3a	Individual Modification																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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MODELS OF SYSTEMS AFFECTED:	<u>EP-3E</u> <span style="float: right;">TYPE MODIFICATION: <u>Operational Improvement/Modernization</u></span>																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
<p><b>DESCRIPTION / JUSTIFICATION:</b>                  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 Single Channel Ground and Airborne Radio Systems (SINCGARS) upgrade and Infra-Red (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 Trial Kit Installation (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).</p> <p>In OSIP 11-01, the Spiral 1 kit improves operational capability and aircrew productivity by expanding the ESM frequency coverage, applying 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 3 procurement begins in FY11 with Low Band Communication System Upgrades, Environmental Control System (ECS) Upgrades and the replacement of aging and obsolescence aircraft antenna arrays. This OSIP includes ECO funding to replace subsystem obsolescence to ensure EP-3E viability until aircraft recapitalization.</p> <p><b>DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:</b>                  Increment 1 (the JMOD baseline configuration) Milestone III decision occurred 4th Qtr FY04 based on completion of Operational Test (OT), demonstration of Key Performance Parameters (KPP's) and a Developmental Test (DT) Assist on the Story Finder subsystem. The ForceNet Spiral 1 LRIP decision was approved as planned on 06 June 2005 based on successful completion of its Design Readiness Reviews (DRR) and applicable contractor aircraft flight tests. Spiral 1 completed OT 2nd Qtr of FY06 with the associated Full Rate Production decision and contract awarded 4th Qtr of FY06. Spiral 3 efforts will begin with LRIP procurement in 1st Qtr FY2011. Spiral 2 Engineering Development efforts were stopped in 4th Qtr FY08.</p>																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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	<table border="1" style="width:100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th rowspan="2"></th> <th colspan="2">Prior Years</th> <th colspan="2">FY 2009</th> <th colspan="2">FY 2010</th> <th colspan="2">FY 2011</th> <th colspan="2">FY 2012</th> <th colspan="2">FY 2013</th> <th colspan="2">FY 2014</th> <th colspan="2">FY 2015</th> <th colspan="2">To Complete</th> <th colspan="2">Total</th> </tr> <tr> <th>Qty</th> <th>\$</th> </tr> </thead> <tbody> <tr> <td>RDT&amp;E</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>PROCUREMENT</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Installation Kits</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>PRIOR YEAR INSTALL KITS</td> <td>44</td><td>17.0</td> <td></td><td></td> <td></td><td></td> <td></td><td></td> <td></td><td></td> <td></td><td></td> <td></td><td></td> <td></td><td></td> <td></td><td></td> <td></td><td></td> <td>44</td><td>17.0</td> </tr> <tr> <td>JMOD Common SP1</td> <td>6</td><td>4.8</td> <td></td><td></td> <td></td><td></td> <td></td><td></td> <td></td><td></td> <td></td><td></td> <td></td><td></td> <td></td><td></td> <td></td><td></td> <td></td><td></td> <td>6</td><td>4.8</td> </tr> <tr> <td>JMOD Common SP3</td> <td></td><td></td> <td></td><td></td> <td></td><td></td> <td>3</td><td>7.1</td> <td>3</td><td>7.2</td> <td>3</td><td>7.3</td> <td>3</td><td>7.4</td> <td>2</td><td>5.1</td> <td></td><td></td> <td></td><td></td> <td>14</td><td>34.0</td> </tr> <tr> <td>INSTALLATION KITS N/R</td> <td></td><td>9.5</td> <td></td><td>3.2</td> <td></td><td>3.4</td> <td></td><td>3.4</td> <td></td><td>0.9</td> <td></td><td></td> <td></td><td></td> <td></td><td></td> <td></td><td></td> <td></td><td></td> <td></td><td>20.5</td> </tr> <tr> <td>Installation Equipment</td> <td></td><td></td> </tr> <tr> <td>PRIOR YEAR INSTALL EQUIP</td> <td>75</td><td>77.3</td> <td></td><td></td> <td></td><td></td> <td></td><td></td> <td></td><td></td> <td></td><td></td> <td></td><td></td> <td></td><td></td> <td></td><td></td> <td></td><td></td> <td>75</td><td>77.3</td> </tr> <tr> <td>JMOD Common SP1</td> <td>6</td><td>25.0</td> <td></td><td></td> <td></td><td></td> <td></td><td></td> <td></td><td></td> <td></td><td></td> <td></td><td></td> <td></td><td></td> <td></td><td></td> <td></td><td></td> <td>6</td><td>25.0</td> </tr> <tr> <td>JMOD Common SP3</td> <td></td><td></td> <td></td><td></td> <td></td><td></td> <td>3</td><td>17.7</td> <td>3</td><td>18.1</td> <td>3</td><td>18.5</td> <td>3</td><td>18.9</td> <td>2</td><td>13.0</td> <td></td><td></td> <td></td><td></td> <td>14</td><td>86.1</td> </tr> <tr> <td>Installation Equipment N/R</td> <td></td><td>31.3</td> <td></td><td>1.7</td> <td></td><td>5.6</td> <td></td><td>5.7</td> <td></td><td>1.0</td> <td></td><td></td> <td></td><td></td> <td></td><td></td> <td></td><td></td> <td></td><td></td> <td></td><td>45.4</td> </tr> <tr> <td>Engineering Change Orders</td> <td></td><td></td> </tr> <tr> <td>JCC Obsolescence</td> <td></td><td>42.6</td> <td></td><td>7.6</td> <td></td><td>15.1</td> <td></td><td>16.9</td> <td></td><td>17.3</td> <td></td><td>11.7</td> <td></td><td>13.4</td> <td></td><td>11.1</td> <td></td><td>30.0</td> <td></td><td></td> <td></td><td>165.7</td> </tr> <tr> <td>Data</td> <td></td><td>6.7</td> <td></td><td>0.9</td> <td></td><td>1.5</td> <td></td><td>1.6</td> <td></td><td>1.5</td> <td></td><td>1.5</td> <td></td><td>1.6</td> <td></td><td>0.5</td> <td></td><td>1.0</td> <td></td><td></td> <td></td><td>16.9</td> </tr> <tr> <td>Training Equipment</td> <td></td><td>6.3</td> <td></td><td>1.5</td> <td></td><td>5.7</td> <td></td><td>1.5</td> <td></td><td>1.6</td> <td></td><td>1.6</td> <td></td><td>1.6</td> <td></td><td>1.4</td> <td></td><td>2.8</td> <td></td><td></td> <td></td><td>23.9</td> </tr> <tr> <td>Support Equipment</td> <td></td><td>3.0</td> <td></td><td>2.1</td> <td></td><td>4.0</td> <td></td><td>4.1</td> <td></td><td>0.2</td> <td></td><td>0.2</td> <td></td><td></td> <td></td><td></td> <td></td><td></td> <td></td><td></td> <td></td><td>13.7</td> </tr> <tr> <td>ILS</td> <td></td><td>16.1</td> <td></td><td>2.6</td> <td></td><td>6.9</td> <td></td><td>2.8</td> <td></td><td>2.4</td> <td></td><td>2.1</td> <td></td><td>2.1</td> <td></td><td>1.9</td> <td></td><td>3.8</td> <td></td><td></td> <td></td><td>40.6</td> </tr> <tr> <td>Other Support</td> <td></td><td>56.6</td> <td></td><td>8.7</td> <td></td><td>7.5</td> <td></td><td>6.9</td> <td></td><td>5.3</td> <td></td><td>4.8</td> <td></td><td>5.0</td> <td></td><td>4.5</td> <td></td><td>9.0</td> <td></td><td></td> <td></td><td>108.1</td> </tr> <tr> <td>Interim Contractor Support</td> <td></td><td></td> </tr> <tr> <td>Installation Cost</td> <td>46</td><td>36.3</td> <td></td><td></td> <td></td><td>7.4</td> <td>1</td><td>14.6</td> <td>3</td><td>32.1</td> <td>3</td><td>32.2</td> <td>3</td><td>32.8</td> <td>3</td><td>36.6</td> <td>1</td><td>22.0</td> <td></td><td></td> <td>60</td><td>214.0</td> </tr> <tr> <td><b>Total Procurement</b></td> <td></td><td><b>332.5</b></td> <td></td><td><b>28.3</b></td> <td></td><td><b>57.2</b></td> <td></td><td><b>82.3</b></td> <td></td><td><b>87.6</b></td> <td></td><td><b>79.9</b></td> <td></td><td><b>82.7</b></td> <td></td><td><b>74.0</b></td> <td></td><td><b>68.6</b></td> <td></td><td></td> <td></td><td><b>893.1</b></td> </tr> </tbody> </table>		Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		Qty	\$	RDT&E																						PROCUREMENT																						Installation Kits																						PRIOR YEAR INSTALL KITS	44	17.0																			44	17.0	JMOD Common SP1	6	4.8																			6	4.8	JMOD Common SP3							3	7.1	3	7.2	3	7.3	3	7.4	2	5.1					14	34.0	INSTALLATION KITS N/R		9.5		3.2		3.4		3.4		0.9												20.5	Installation Equipment																							PRIOR YEAR INSTALL EQUIP	75	77.3																			75	77.3	JMOD Common SP1	6	25.0																			6	25.0	JMOD Common SP3							3	17.7	3	18.1	3	18.5	3	18.9	2	13.0					14	86.1	Installation Equipment N/R		31.3		1.7		5.6		5.7		1.0												45.4	Engineering Change Orders																							JCC Obsolescence		42.6		7.6		15.1		16.9		17.3		11.7		13.4		11.1		30.0				165.7	Data		6.7		0.9		1.5		1.6		1.5		1.5		1.6		0.5		1.0				16.9	Training Equipment		6.3		1.5		5.7		1.5		1.6		1.6		1.6		1.4		2.8				23.9	Support Equipment		3.0		2.1		4.0		4.1		0.2		0.2										13.7	ILS		16.1		2.6		6.9		2.8		2.4		2.1		2.1		1.9		3.8				40.6	Other Support		56.6		8.7		7.5		6.9		5.3		4.8		5.0		4.5		9.0				108.1	Interim Contractor Support																							Installation Cost	46	36.3				7.4	1	14.6	3	32.1	3	32.2	3	32.8	3	36.6	1	22.0			60	214.0	<b>Total Procurement</b>		<b>332.5</b>		<b>28.3</b>		<b>57.2</b>		<b>82.3</b>		<b>87.6</b>		<b>79.9</b>		<b>82.7</b>		<b>74.0</b>		<b>68.6</b>				<b>893.1</b>																		
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INSTALLATION KITS N/R		9.5		3.2		3.4		3.4		0.9												20.5																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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Installation Equipment N/R		31.3		1.7		5.6		5.7		1.0												45.4																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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JCC Obsolescence		42.6		7.6		15.1		16.9		17.3		11.7		13.4		11.1		30.0				165.7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
Data		6.7		0.9		1.5		1.6		1.5		1.5		1.6		0.5		1.0				16.9																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
Training Equipment		6.3		1.5		5.7		1.5		1.6		1.6		1.6		1.4		2.8				23.9																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
Support Equipment		3.0		2.1		4.0		4.1		0.2		0.2										13.7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
ILS		16.1		2.6		6.9		2.8		2.4		2.1		2.1		1.9		3.8				40.6																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
Other Support		56.6		8.7		7.5		6.9		5.3		4.8		5.0		4.5		9.0				108.1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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Installation Cost	46	36.3				7.4	1	14.6	3	32.1	3	32.2	3	32.8	3	36.6	1	22.0			60	214.0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
<b>Total Procurement</b>		<b>332.5</b>		<b>28.3</b>		<b>57.2</b>		<b>82.3</b>		<b>87.6</b>		<b>79.9</b>		<b>82.7</b>		<b>74.0</b>		<b>68.6</b>				<b>893.1</b>																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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1. FY10 increase to support logistic, training, and support equipment for SP3 procurement and fleet introduction. 2. Costs of JCC Kits and Installs experience large increases because there are no longer cost sharing benefits due to retiring P-3 efforts. 3. Totals may not add due to rounding.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	

**Exhibit P-3a**

MODELS OF SYSTEMS AFFECTED: EP-3E Mission Avionics Systems MODIFICATION TITLE: EP-3E Joint Airborne SIGINT Architecture (JASA) Modification Program (JMOD) (OSIP 11-01)  
JMOD Installations/JMOD Common Spiral 3

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Commercial Contractor Installation

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 8 Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: Dec-10

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: Aug-11

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY ( ) kits																					
FY 2009 ( ) kits																					
FY 2010 ( ) kits																					
FY 2011 (3) kits							1	9.3	2	17.6										3	26.9
FY 2012 (3) kits									1	8.8	2	18.0								3	26.8
FY 2013 (3) kits											1	9.0	2	18.4						3	27.4
FY 2014 (3) kits													1	9.2	2	20.0				3	29.2
FY 2015 (2) kits															1	10.0	1	10.0		2	20.0
To Complete ( ) kits																	1	10.0			
<b>TOTAL</b>							<b>1</b>	<b>9.3</b>	<b>3</b>	<b>26.5</b>	<b>3</b>	<b>27.0</b>	<b>3</b>	<b>27.5</b>	<b>3</b>	<b>30.0</b>	<b>1</b>	<b>10.0</b>	<b>14</b>	<b>130.3</b>	

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
		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
Out															1			1	1	1		

  

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In		1	1	1		1	1	1	1	14
Out	1	1	1		1	1	1		4	14



Exhibit P-3a	Individual Modification																				
MODIFICATION TITLE:	<u>EP-3E RECAPITALIZATION CAPABILITIES MIGRATION( OSIP 007-09 )</u>																				
MODELS OF SYSTEMS AFFECTED:	<u>EP-3E</u>	TYPE MODIFICATION: <u>Operational Improvement/Modernization</u>																			
DESCRIPTION / JUSTIFICATION: Funding was added in FY09-FY10 to procure OSD directed EP-3E capabilities to ensure mission relevance beyond FY20 that may be migrated to the recapitalization platform. OSIP funding provides for special SIGINT signal procurements. Quick Reaction Capability (QRC) funds in FY10-13 address mission avionics system obsolescence and emerging requirements from national and theater commanders in response to tasking associated with Overseas Contingency Operations (OCO) requirements.																					
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: The EP-3E sustainment ECO procurement will commence in FY09 to ensure mission system viability beyond FY20.																					
FINANCIAL PLAN: (TOA, \$ in Millions)																					
	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
INSTALLATION KITS																					
INSTALLATION KITS N/R																					
INSTALL EQUIPMENT																					
INSTALL EQUIPMENT N/R																					
ECO																					
OBsolescence				10.0																	10.0
QRC						3.3		4.5		1.0		1.0		1.0		1.0		3.0			14.8
DATA				0.9		0.6															1.5
TRAINING EQUIP				2.4		15.0															17.4
SUPPORT EQUIP				0.9		4.1															5.0
ILS				0.3		4.2															4.5
OTHER SUPPORT				2.1		3.5		1.5		0.5		0.5		0.5		0.5		2.0			11.1
INTERIM CONTRACTOR SUPPORT																					
INSTALLATION COST				1.8		2.8		2.0		0.5		0.5		0.5		0.5		2.0			10.6
<b>Total Procurement</b>				<b>18.3</b>		<b>33.5</b>		<b>8.0</b>		<b>2.0</b>		<b>2.0</b>		<b>2.0</b>		<b>2.0</b>		<b>7.0</b>			<b>74.9</b>

Notes:  
1. Totals may not add due to rounding

**Exhibit P-3a**

MODELS OF SYSTEMS AFFECTED: EP-3E Mission Avionics Systems MODIFICATION TITLE: EP-3E Recapitalization Capabilities Migration (RCM) (OSIP 007-09)

INSTALLATION INFORMATION: Obsolescence ECPs

METHOD OF IMPLEMENTATION: Navy Field Mod Team

ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 2 Months

CONTRACT DATES: FY 2009: Dec-08 FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

DELIVERY DATE: FY 2009: Feb-09 FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY ( ) kits																					
FY 2009 ( ) kits				1.8																	1.8
FY 2010 ( ) kits																					
FY 2011 ( ) kits																					
FY 2012 ( ) kits																					
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete ( ) kits																					
<b>TOTAL</b>				<b>1.8</b>																	<b>1.8</b>

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In																						
Out																						

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										
Out										

**Exhibit P-3a**

MODELS OF SYSTEMS AFFECTED: EP-3E Mission Avionics Systems MODIFICATION TITLE: EP-3E Recapitalization Capabilities Migration (RCM) (OSIP 007-09)

INSTALLATION INFORMATION: Quick Response Capabilities (QRC)

METHOD OF IMPLEMENTATION: Commercial Contractor Installation

ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 2 Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: Dec-09 FY 2011: Dec-10

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: Feb-10 FY 2011: Feb-11

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY ( ) kits																					
FY 2009 ( ) kits																					
FY 2010 ( ) kits						2.8															2.8
FY 2011 ( ) kits								2.0													2.0
FY 2012 ( ) kits									0.5												0.5
FY 2013 ( ) kits										0.5											0.5
FY 2014 ( ) kits												0.5									0.5
FY 2015 ( ) kits														0.5							0.5
To Complete ( ) kits																				2.0	2.0
<b>TOTAL</b>						<b>2.8</b>		<b>2.0</b>		<b>0.5</b>		<b>0.5</b>		<b>0.5</b>		<b>0.5</b>			<b>2.0</b>	<b>8.8</b>	

Installation Schedule

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In																					
Out																					

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										
Out										

Note: FY10 through FY15 QRC quantities vary due to emergent threat requirements.

Exhibit P-40, BUDGET ITEM JUSTIFICATION							DATE: February 2010						
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/APN-5 Aircraft Modifications							P-1 ITEM NOMENCLATURE 053800, P-3 SERIES						
Program Element for Code B Items:							Other Related Program Elements						
	Prior Years	ID Code	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total
QTY		A											
COST (In Millions)	3,610.5	A	340.1	462.4	222.0	6.0	228.0	202.4	66.8	44.8	12.0		4,966.9
<p>DESCRIPTION: 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 (SUW), 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.</p> <p>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.</p> <p>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 projected MMA Full Operational Capability (FOC) of 2019 (and beyond for Block Mod Upgrade Program (BMUP) and EP-3 configurations). P-3 aircraft mods funded under the APN line have heavily supported recent and current Operation Enduring Freedom (OEF), Operation Iraqi Freedom (OIF) and Overseas Contingency Operations (OCO). 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 ensuring sufficient P-3 assets for Fleet and Combatant Commanders to fulfill operational and training/readiness requirements.</p> <p>The overall goal of the modifications budgeted in FY2011 is to continue aircraft sustainment, including: USQ-78 improvements (part of Update III), comm/nav/surveillance weapon system improvements, upgrades/modifications to airframe components/systems (including outer wing replacements), safety improvements and key system obsolescence upgrades. FY11 OCO funds are requested for Full Motion Video (FMV) Metadata modification. The specific modifications budgeted and programmed are:</p>													
(TOA, \$ in Millions)													
OSIP No.	Description	Prior Years	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total
080-84	UPDATE III BLK UPGRADE	1222.5	25.3	27.0	9.4		9.4	16.8	12.6	0.8	0.8		1,315.3
053-85	CRITICAL SYSTEMS IMPROV	38.1	0.4	0.4	0.4		0.4	0.4	0.4	0.4	0.4		40.9
029-94	ASUW IMPROVEMENT PROG	1326.4	41.2	29.1	27.9	6.0	33.9	31.2	17.2	3.5			1,482.5
013-01	CNS-ATM	116.5	16.9	18.5	10.2		10.2	11.4	4.6	5.3	2.9		186.3
004-04	P-3 READINESS IMPROVEM	142.5	37.9	36.1	10.9		10.9	5.0	2.4	0.3			235.0
005-05	SSI-K	630.5	200.0	331.5	153.5		153.5	126.0	19.2	27.7			1,488.5
005-07	PROJECT K-0416	4.9	2.4	2.4	2.1		2.1	2.1	2.2	2.2	2.3		20.6
006-08	P-3 MISSION SYSTEMS DAWDF REALIGNMENT	3.7	14.9	17.3	7.6		7.6	9.4	8.2	4.6	5.6		71.3
			1.0										1.0
	INACTIVE OSIPS	125.4											125.4
<b>Total</b>		3610.5	340.1	462.4	222.0	6.0	228.0	202.4	66.8	44.8	12.0		4,966.9
<p><b>Note: Totals may not add due to rounding.</b></p>													

MODIFICATION TITLE: UPDT III BLK UPRDE( OSIP 080-84 )

MODELS OF SYSTEMS AFFECTED: P-3C TYPE MODIFICATION: Operational Improvement

**DESCRIPTION / JUSTIFICATION:**

The Update III Block Upgrade program provides an improved P-3 anti-submarine warfare (ASW) capability required to neutralize current and emerging littoral and open ocean submarine threats in support of Sea Shield/Sea Power 21.

The program initially establishes a common configuration of AN/USQ-78(V) acoustic processors, acoustic data recorders, sonobuoy receivers, and other acoustic subsystem components for all P-3C Mission Aircraft. Follow-on program efforts continuously modernize this common acoustic subsystem baseline to address COTS component obsolescence, accomplish periodic COTS technology insertions, and provide functional improvements via an Air Acoustic Rapid COTS Insertion (Air ARCI) process. These common configuration efforts and follow-on technology insertion efforts are accomplished with AN/USQ-78(V) Air ARCI upgrade funding.

FY09 thru FY13 objectives of the Update III Block Upgrade Program are to provide improved ASW capability through a series of Air ARCI Technology Insertions/Refreshes to the Acoustic Receiver, Acoustic Processor, and the Acoustic System. These Tech Insertions/Refreshes will: (1) increase digital sonobuoy monitoring capacity and improve acoustic subsystem maintainability by replacing the analog ARR-78 sonobuoy receiver with a digital Software Defined Sonobuoy Receiver (SDSR); (2) increase system openness by eliminating the analog signal conditioning and MIL-unique interface cards; (3) increase 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) by incrementally upgrading system memory and processing capacity with the latest commercial variants of COTS single board computers and digital signal processors; (4) provide additional ongoing non-recurring engineering (NRE) solutions to support continuous technology insertions/Refreshes and COTS obsolescence mitigation on a regular cycle via an ARCI Tech Refresh process to the USQ-78(B) system.

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 97 aircraft and 10 trainers to be modified to a common baseline configuration, then continuously upgraded via an ARCI process.

**DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:**

The original Update III variant received approval for limited production in December 1983 and December 1984. Approval for full production was received in January 1986. The basis of the currently planned common configuration is an AN/USQ-78(V) variant that received approval for full production in February 2002.

**FINANCIAL PLAN: (TOA, \$ IN MILLIONS)**

FISCAL YEAR	PRIOR YEARS		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		TO COMPLETE		Total		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
RDT&E																					
PROCUREMENT																					
INSTALLATION KITS																					
PRIOR YEAR KITS	658	98.8																	658	98.8	
INSTALLATION KITS N/R		64.5																			64.5
INSTALL EQUIPMENT																					
DASD/DASD DOCKS	310	2.6			42	0.3	10	0.1	60	0.4	38	0.2	76	0.4		*				536	3.9
PRIOR YEAR EQUIPMENT	1895	567.6																	1895	567.6	
USQ-78A/CHRDS	97	126.9																	97	126.9	
USQ78 APTR RETROFIT CARD SETS					55	8.7	10	1.7												65	10.4
USQ78 APTR UPGRADE KITS			10	8.0	6	4.9														16	12.9
USQ78 ASTR RETROFIT CARD SETS							1	0.5	22	8.6	25	9.7								48	18.8
USQ78 SONO RECEIVER UPGRADE	45	25.6	20	10.1																65	35.6
USQ78 AFTR UPGRADE KITS																					
INSTALL EQUIPMENT N/R		112.4		2.0		2.2		1.8		2.9		0.7									122.0
ECO																					
ECO		.1		0.1		0.1		0.1		0.1		0.1									0.6
USQ-78B SYSTEM CONTROLLER ECP		1.6																			1.6
USQ7-78 SONO RECEIVER ECP		5.3																			5.3
DATA		17.2		0.1		0.2		0.2		0.3		0.3				0.2					18.5
TRAINING EQUIP	47	20.2	10	1.1	4	1.5	2	0.7												63	23.5
SUPPORT EQUIP		1.6																			1.6
ILS		3.6																			3.6
OTHER SUPPORT		138.1		2.8		3.7		2.0		2.3		1.6		0.4		0.6					151.4
INTERIM CONTRACTOR SUPPORT																					
INSTALLATION COST	579	36.5	8	1.2	45	5.5	24	2.4	23	2.3										679	47.9
TOTAL PROCUREMENT		1,222.5		25.3		27.0		9.4		16.8		12.6		0.8		0.8					1315.3

Asterisk (\*) indicates amount value less than \$51K

Note: The cost of "A" and "B" kits for USQ-78 are not separately priced.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3C

MODIFICATION TITLE: Update III Block Upgrade (OSIP 80-84) USQ-78V CHRDS

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Installation will be accomplished on the SMIP contract OR on the SMIP contract and NADEP Jax

ADMINISTRATIVE LEADTIME: 11 Months

PRODUCTION LEADTIME: 18 Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2008 & PY (97) kits	78	4.9	8	1.2	11	2.1													97	8.2
FY 2009 () kits																				
FY 2010 () kits																				
FY 2011 () kits																				
FY 2012 () kits																				
FY 2013 () kits																				
FY 2014 () kits																				
FY 2015 () kits																				
To Complete () kits																				
<b>TOTAL</b>	<b>78</b>	<b>4.9</b>	<b>8</b>	<b>1.2</b>	<b>11</b>	<b>2.1</b>													<b>97</b>	<b>8.2</b>

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	78		3	3	2	4	4	3													
Out	78		3	3	2	4	4	3													

	FY 2014				FY 2015				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										97
Out										97

Completions same as inductions; one week effort.

The last 11 USQ78s were modified in plant to include the SONO Receiver upgrade.

All 97 USQ78s have been procured.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3C MODIFICATION TITLE: Update III Block Upgrade (OSIP 80-84) SONO RECEIVER (Acoustic Receiver Tech Refresh)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Installation will be accomplished at NADEP Jacksonville, on the MIP contract, and on-site by a contractor field team

ADMINISTRATIVE LEADTIME: 9 Months PRODUCTION LEADTIME: 21 Months

CONTRACT DATES: FY 2009: 07/09 FY 2010:          FY 2011:         

DELIVERY DATE: FY 2009: 04/11 FY 2010:          FY 2011:         

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2008 & PY (45) kits					34	3.4	11	1.1											45	4.5
FY 2009 (20) kits							5	.5	15	1.5									20	2.0
FY 2010 ( ) kits																				
FY 2011 ( ) kits																				
FY 2012 ( ) kits																				
FY 2013 ( ) kits																				
FY 2014 ( ) kits																				
FY 2015 ( ) kits																				
To Complete ( ) kits																				
<b>TOTAL</b>					<b>34</b>	<b>3.4</b>	<b>16</b>	<b>1.6</b>	<b>15</b>	<b>1.5</b>									<b>65</b>	<b>6.5</b>

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In					8	8	9	9			8	8	8	7							
Out					8	8	9	9			8	8	8	7							

	FY 2014				FY 2015				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										65
Out										65

Completions same as inductions; two week effort.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3C MODIFICATION TITLE: Update III Block Upgrade (OSIP 80-84) SONO RECEIVER (Acoustic Processor Tech Refresh)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Installation will be accomplished at NADEP Jacksonville, on the MIP contract, and on-site by a contractor field team

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 15 Months

CONTRACT DATES: FY 2009: 01/10 FY 2010: 1/10 FY 2011: \_\_\_\_\_

DELIVERY DATE: FY 2009: 04/11 FY 2010: 04/11 FY 2011: \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY () kits																					
FY 2009 (10) kits							8	.8	2	.2										10	1.0
FY 2010 (6) kits									6	.6										6	.6
FY 2011 () kits																					
FY 2012 () kits																					
FY 2013 () kits																					
FY 2014 () kits																					
FY 2015 () kits																					
To Complete () kits																					
<b>TOTAL</b>							8	.8	8	.8										16	1.6

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		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						
Out												4	4	4	4						

	FY 2014				FY 2015				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										16
Out										16

Completions same as inductions; two week effort.  
The last 11 USQ78s were modified in plant to include the SONO Receiver upgrade.

MODIFICATION TITLE: ASUW IMPROV. PROG. ( OSIP 029-94 )

MODELS OF SYSTEMS AFFECTED: P-3C TYPE MODIFICATION: 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 (C4I). 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. C4I 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. FY2005 Emergency Supplemental Appropriation for Defense (ESAD) funds were provided to procure and install additional TCDL systems. 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;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; TC DL: Recorders including the High Resolution Digital Recorder; ALE47/AAR47; Digital Stores Management System (DSMS); all weapon systems including missiles, torpedoes, mines, as well as acoustic system upgrades. The ASW Maritime Improvement Program (AMIP) will provide for Mission System Sustainment, ASW improvements and improved C4I systems including INMARSAT/Integrated Tactical Picture(ITP), and High Frequency Internet Protocol (HFIP), FY11 OCO funds will provide funds for Full Motion Video (FMV) Metadata.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: This modification makes maximum use of previously developed subsystems.

**FINANCIAL PLAN: (TOA, \$ IN MILLIONS)**

FISCAL YEAR	PRIOR YEARS		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		TO COMPLETE		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
RDT&E																					
PROCUREMENT																					
INSTALLATION KITS																					
PRIOR YEAR KITS	88	384.3																	88	384.3	
TCDL A-KIT	25	0.8																	25	0.8	
DIGITAL STORES MGT SYSTEM	2	0.4																	2	0.4	
INSTALLATION KITS N/R		42.1																			42.1
INSTALL EQUIPMENT																					
BMUP ASE FOAM KITS	4	0.2																	4	0.2	
C4 FOR ASW LINK16	3	0.9	11	6.6	2	1.2	13	8.1	18	11.4	8	5.1							55	33.4	
C4 FOR ASW (INMARSAT/ITP)	3	4.6	11	5.5	2	1.0	13	6.9	18	10.1	8	4.7							55	32.8	
Digital Stores Management	2	0.7																	2	0.7	
GPE SENSORS AND AVIONICS		287.0																			287.0
HIGH RESOLUTION DIGITAL RECORDER		0.8																			0.8
HFIP			26	2.6			8	0.9	21	2.4									55	5.9	
PHASED CAPABILITY UPGRADE (MST)	74	45.7																	74	45.7	
PRIOR YEAR EQUIPMENT		9.5																			9.5
TCDL B-KIT	26	10.8																			26
FULL MOTION VIDEO (FMV) METADATA (OCO)							30	3.9													30
INSTALL EQUIPMENT N/R		91.2		5.1		3.2		0.4		*											99.8
INSTALL EQUIPMENT N/R (FMV OCO)								1.0													1.0
ECO																					
ALR-95 UPGRADES		0.3																			0.3
DIGITAL STORES MANAGEMENT SYSTEM		11.9		0.5																	12.4
SLAM-ER		23.8																			23.8
C4 FOR ASW						2.7		0.5		0.2		0.1									3.5
DATA		17.2		1.0		0.3		0.3		0.2		*									18.9
TRAINING EQUIP		69.7		6.2		7.9		0.4													84.3
SUPPORT EQUIP		13.1		1.1		0.3															14.5
ILS		16.3		0.5		0.3		0.3		0.2		0.2		0.2							18.1
ILS (FMV OCO)								0.2													0.2
OTHER SUPPORT		157.4		11.8		11.6		5.5		3.8		1.8		1.4							193.2
OTHER SUPPORT (FMV OCO)								0.3													0.3
INTERIM CONTRACTOR SUPPORT																					
INSTALLATION COST	131	137.7	74	0.4	15	0.8	39	4.5	21	2.9	39	5.2	8	2.0					327	153.3	
INSTALLATION COST (FMV OCO)								0.6	15		15									30	0.6
TOTAL PROCUREMENT		1326.4		41.2		29.1		33.9		31.2		17.2		3.5							1482.5

Asterisk (\*) indicates amount value less than \$51K

- The cost of "A" and "B" kits for all kits (except TC DL) not separately priced.
- AIP prior year TC DL kits funded with Congressional Add and ESAD funds.
- Phased Capability Upgrade (MST) prior year kits include two (2) lab assets.
- FMV Metadata kits installed in FY12 and FY13 with FY11 OCO funds.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED:

P-3C

MODIFICATION TITLE: Anti-Surface Warfare (ASUW) Improvement Program (OSIP 29-94) TCDL Installations

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION:

Contractor Field Mod Team

ADMINISTRATIVE LEADTIME:

10 Months

PRODUCTION LEADTIME: 10 Months

CONTRACT DATES:

FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

DELIVERY DATE:

FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2008 & PY (74) kits	61	4.1	13	*															74	4.1
FY 2009 () kits																				
FY 2010 () kits																				
FY 2011 () kits																				
FY 2012 () kits																				
FY 2013 () kits																				
FY 2014 (3) kits																				
FY 2015 () kits																				
To Complete () kits																				
<b>TOTAL</b>	<b>61</b>	<b>4.1</b>	<b>13</b>	<b>*</b>															<b>74</b>	<b>4.1</b>

\* Install provided at no cost to Gov't

\*\* Two of the FY07 funded kits are for trainers; one is for PHIC lab which does not require installation.

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	61	6	6	1																	
Out	55	6	6	6	1																

	FY 2014				FY 2015				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										74
Out										74

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3C MODIFICATION TITLE: Anti-Surface Warfare (ASUW) Improvement Program (OSIP 29-94) AIS Installations/PCU/MST

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 15 Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (75) kits ***	** 12	1.8	48	** .1	12	.4														72	2.2
FY 2009 ( ) kits																					
FY 2010 ( )kits																					
FY 2011 ( ) kits																					
FY 2012 ( ) kits																					
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete ( ) kits																					
<b>TOTAL</b>	<b>12*</b>	<b>1.8</b>	<b>48</b>	<b>.1</b>	<b>12</b>	<b>.4</b>														<b>72</b>	<b>2.2</b>

\*FY07 Congressional Add funds 37 installs (12 installs in FY08 and 24 installs in FY09)

\*\* FY07 Title IX funds 21 installs (21 kits in FY09)

\*\*\* 1 Prior Year kit was installed in the lab and 2 Prior Year kits are being installed in trainers

(1) lab kit procured under NRE

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	12	12	12	12	12																
Out		12	12	12	12	12	12														

	FY 2014				FY 2015				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										72
Out										72

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED:

P-3C MODIFICATION TITLE: Anti-Surface Warfare (ASUW) Improvement Program (OSIP 29-94) C4 for ASW (INMARSAT/ITPLink-16) Installations

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION:

Contractor Field Mod Team

ADMINISTRATIVE LEADTIME:

1 Months

PRODUCTION LEADTIME: 11 Months

CONTRACT DATES:

FY 2009: 11/09 FY 2010: 11/09 FY 2011: 11/10

DELIVERY DATE:

FY 2009: 10/10 FY 2010: 10/10 FY 2011: 10/11

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL			
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$		
FY 2008 & PY (3) kits *					3	.4														3	.4	
FY 2009 (11) kits							11	1.6													11	1.6
FY 2010 (2) kits							2	.3													2	.3
FY 2011 (13) kits									13	2.0											13	2.0
FY 2012 (18) kits											18	2.9									18	2.9
FY 2013 (8) kits													8	2.0							8	2.0
FY 2014 ( ) kits																						
FY 2015 ( ) kits																						
To Complete ( ) kits																						
<b>TOTAL</b>					3	.4	13	1.9	13	2.0	18	2.9	8	2.0							55	9.1

\* FY08 Kits Procured With Cong Add

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		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	4	4	3	3	3	4	5	5	4
Out									3	3	3	3	4	4	3	3	3	3	4	5	5

	FY 2014				FY 2015				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In	3	3	2							55
Out	4	3	3	2						55

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED:

P-3C MODIFICATION TITLE: Anti-Surface Warfare (ASUW) Improvement Program (OSIP 29-94) Digital Stores Management

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION:

Contractor Field Mod Team

ADMINISTRATIVE LEADTIME:

3 Months PRODUCTION LEADTIME: 9 Months

CONTRACT DATES:

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (2) kits	1	.2	1	.3																2	.5
FY 2009 () kits																					
FY 2010 () kits																					
FY 2011 () kits																					
FY 2012 () kits																					
FY 2013 () kits																					
FY 2014 () kits																					
FY 2015 () kits																					
To Complete () kits																					
<b>TOTAL</b>	<b>1</b>	<b>.2</b>	<b>1</b>	<b>.3</b>																<b>2</b>	<b>.5</b>

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
		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				1																	

	FY 2014				FY 2015				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										2
Out										2

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3C MODIFICATION TITLE: BMUP SURVIVABILITY (OSIP 29-94)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 10 Months PRODUCTION LEADTIME: 11 Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (15) kits *	* 3	4.3	12	**																15	4.3
FY 2009 () kits																					
FY 2010 () kits																					
FY 2011 () kits																					
FY 2012 () kits																					
FY 2013 () kits																					
FY 2014 () kits																					
FY 2015 () kits																					
To Complete () kits																					
<b>TOTAL</b>	<b>* 3</b>	<b>4.3</b>	<b>12</b>	<b>**</b>																<b>15</b>	<b>4.3</b>

\*FY07 B-Kits funded with JIEDDO (other customer funds)

\*\*ESAD funds 3 in FY08 & 12 installs in FY09

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
		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																	
Out		3	3	3	3	3																

	FY 2014				FY 2015				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										15
Out										15

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3C MODIFICATION TITLE: Anti-Surface Warfare (ASUW) Improvement Program (OSIP 29-94) High Frequency Internet Protocol (HFIP)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 9 Months

CONTRACT DATES: FY 2009: 01/10 FY 2010:          FY 2011: 01/11

DELIVERY DATE: FY 2009: 10/10 FY 2010:          FY 2011: 10/11

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY () kits *																					
FY 2009 (26) kits							26	2.6												26	2.6
FY 2010 () kits																					
FY 2011 (8) kits									8	.8										8	.8
FY 2012 (21) kits											21	2.3								21	2.3
FY 2013 ) kits																					
FY 2014 () kits																					
FY 2015 () kits																					
To Complete () kits																					
<b>TOTAL</b>							26	2.6	8	.8	21	2.3								55	5.8

\* Two kits are to be installed in trainers & one in the PHIC

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		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	2	2	2	2	6	5	5	5
Out											6	6	7	7	2	2	2	2	6	5	5

	FY 2014				FY 2015				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										55
Out	5									55

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3C MODIFICATION TITLE: Anti-Surface Warfare (ASUW) Improvement Program (OSIP 29-94 Full Motion Video (FMV) Metadata for P-3

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION:

Contractor Field Mod Team

ADMINISTRATIVE LEADTIME:

11 Months

PRODUCTION LEADTIME:

7 Months

CONTRACT DATES:

FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: 09/11

DELIVERY DATE:

FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: 04/12

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY () kits																					
FY 2009 (26) kits																					
FY 2010 () kits																					
FY 2011 () kits																					
FY 2011 OCO (30) kits								.6	15		15									30	.6
FY 2012 () kits																					
FY 2013 ) kits																					
FY 2014 () kits																					
FY 2015 () kits																					
To Complete () kits																					
TOTAL								.6	15		15									30	.6

FY11 kits/installs procured with FY11 OCO funds

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In														7	8	7	8				
Out														7	8	7	8				

	FY 2014				FY 2015				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										30
Out										30

MODIFICATION TITLE: CNS-ATM( OSIP 013-01 )

MODELS OF SYSTEMS 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 (RNAV), 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 132 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.

Joint Mission Planning System (JMPS) Unique Planning Component (UPC) is required to replace the flight and mission planning elements ( Flight Planning, ASW Mission Planning, SLAM-ER planning) that presently reside in TAMPS, which will be replaced by JMPS. The JUMPS UPC will reside on laptop computers to be procured for 97 aircraft (72 AIP/25 BMUP). There is no kits or installs associated with this effort.

**DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:**

Acquisition Strategy approved 21 Nov 03/ACAT IVM. Preliminary Design Review for RNAV Mode S completed 16 Jun 04. Began transition of ARC-210 (8.33kHz) Radio and MLR-2020 (P-ILS) from Roll-On/Roll-Off to permanent installation in FY-05 (PMA-209 funded).

**FINANCIAL PLAN: (TOA, \$ IN MILLIONS)**

FISCAL YEAR	PRIOR YEARS		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		TO COMPLETE		Total		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
RDT&E																					
PROCUREMENT																					
INSTALLATION KITS																					
5VAC RED LIGHTING BUS	86.0	0.1	26	*	20	*														132.0	0.2
8.33kHz VHF RADIO	28.0	0.1		***		***		***		***		***								28.0	0.1
ARC-197/210 KIT	28.0	0.5																		28.0	0.5
EFDS	146.0	9.1			6	0.7	2	0.2	2	0.2										156.0	10.3
MLR-2020 (P-ILS)	75.0	0.3		***		***		***		***		***								75.0	0.3
MLR-2020 (PERMANENT)	20.0	0.1																		20.0	0.1
RNAV/MODE S	69.0	5.7	23	2.6	20	1.5	6	0.5	18	1.4	2	0.2	10	0.9						148.0	12.8
INSTALLATION KITS N/R		11.0																			11.0
INSTALL EQUIPMENT																					
8.33kHz (ARC-210)	54.0	1.8		***		***		***		***		***								54.0	1.8
APX-118 (IFF/MODE S)	5.0	0.1		***		***		***		***		***								5.0	0.1
DIGITAL ADC	164.0	4.1	52	1.4	34	0.9	12	0.3	36	1.0	4	0.1	20	0.6						322.0	8.4
EFDS	159.0	12.9			4	0.6	2	0.3	2	0.3	0									167.0	14.2
FMS/CDU 7000 (3 per A/C)	257.0	11.3	49	2.4	60	3.0	18	0.9	54	2.7	6	0.3	30	1.7						474.0	22.3
JMPS UPC					6	*	91	0.5												97.0	0.5
MLR-2020 (P-ILS) (2 PER A/C)	148.0	6.1		***		***		***		***		***								148.0	6.1
MLR-2020A-1 UPGRADES	40.0	0.2		***		***		***		***		***								40.0	0.2
RINU-G (RNP 4/5) (2 PER A/C)	8.0	0.1		***		***		***		***		***								8.0	0.1
INSTALL EQUIPMENT N/R		14.4		0.7		2.7		1.2													19.0
ECO																					
ADDU MOD FOR OP TRAINERS	16.0	0.1	2	*																18.0	0.1
CDU 7000 SERVICE BULLETINS		0.1				0															0.1
JUMPS SOFTWARE						0.6		0.6		0.8											1.9
DATA		2.5																			2.5
TRAINING EQUIP	16.0	1.1	4	0.1	2	0.2														22.0	1.3
SUPPORT EQUIP																					
ILS		2.5		0.5		0.4		0.4		0.4		0.2		0.4		0.4					5.0
OTHER SUPPORT		16.4		3.1		3.0		1.4		1.5		0.9		0.7		0.7					27.7
INTERIM CONTRACTOR SUPPORT																					
INSTALLATION COST	284.0	16.0	71	6.1	51	5.0	45	3.9	20	3.0	18	2.9	50	1.1	10	1.9				549.0	39.9
TOTAL PROCUREMENT		116.5		16.9		18.5		10.2		11.4		4.6		5.3		2.9					186.3

Asterisk (\*) indicates amount value less than \$51k

\*\* 60 EFDS funded under GSP OSIP 28-92.

\*\*\* Beginning in FY-04, PMA-209 funded NRE, equipment and installs for ARC-210 VHF radio, APX-118, MLR-2020 and RINU-G.

NOTE: APX-118 and RINU-G funding in FY04 is for TKIs.

Exhibit P-3a  
 MODELS OF SYSTEMS AFFECTED: P-3C/EP-3/Derivatives MODIFICATION TITLE: CNS/ATM (OSIP 13-01) 5V LIGHTING CB

INSTALLATION INFORMATION:  
 METHOD OF IMPLEMENTATION: Contractor Field Team

ADMINISTRATIVE LEADTIME: 5 Months PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2009: 03/09 FY 2010: 03/10 FY 2011:           

DELIVERY DATE: FY 2009: 09/09 FY 2010: 09/10 FY 2011:           

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL			
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$		
FY 2008 & PY (86) kits	52	.2	34	.2																86	.3	
FY 2009 (26) kits					26	.1															26	.1
FY 2010 (20) kits							20	.1													20	.1
FY 2011 ( ) kits																						
FY 2012 ( ) kits																						
FY 2013 ( ) kits																						
FY 2014 ( ) kits																						
FY 2015 ( ) kits																						
To Complete ( ) kits																						
<b>TOTAL</b>	<b>52</b>	<b>.2</b>	<b>34</b>	<b>.2</b>	<b>26</b>	<b>.1</b>	<b>20</b>	<b>.1</b>												<b>132</b>	<b>.4</b>	

Asterisk (\*) indicates amount value less than 51K.

Installation Schedule

	FY 2008 & PRIOR	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In	52	8	8	9	9	7	7	6	6	5	5	5	5									
Out	52	8	8	9	9	7	7	6	6	5	5	5	5									

  

	FY 2014				FY 2015				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										132
Out										132

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: 3 Months PRODUCTION LEADTIME: 8 Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: 01/10 FY 2011: 01/11

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: 09/10 FY 2011: 09/11

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2008 & PY (146) kits	136 *	10.5	8	1.6	2	.5													146	12.2
FY 2009 () kits																				
FY 2010 (6) kits							4	.5	2	.2									6	.7
FY 2011 (2) kits									2	.2									2	.2
FY 2012 (2) kits											2	.2							2	.2
FY 2013 () kits																				
FY 2014 () kits																				
FY 2015 () kits																				
To Complete () kits																				
<b>TOTAL</b>	136	10.5	8	1.6	2	.5	4	.5	4	.5	2	.2							156	13.7

Note: Will conduct stand-alone EFDS installations in FY01-07 to meet immediate requirements. EFDS will be installed stand-alone or concurrent with CNS/ATM Architecture installs beginning in FY08.

Installs include trainers.

\* 60 Prior year EFDS funded kits under GPS OSIP 29-92

\*\* Six (6) of the FY-06 Funded EFDS Kits procured in FY-07 and will be installed in FY-08.

\*\*\* Final EFDS Quantity reduced by 8. Final Quantity of 156 equals 130 active P-3Cs, 16 EP-3 and 10 P-3Cs that received EFDS that have been or will be struck.

Installation Schedule

	FY 2008 & PRIOR	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	136	3	3	1	1	1		1		1	1	1	1	2		2		1		1	
Out	131	5	3	3	1	1	1		1		1	1	1	1	2		2		1		1

	FY 2014				FY 2015				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										156
Out										156

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: 12 Months

CONTRACT DATES: FY 2009: 03/09 FY 2010: 03/10 FY 2011: 03/11

DELIVERY DATE: FY 2009: 04/10 FY 2010: 03/11 FY 2011: 03/12

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL			
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$		
FY 2008 & PY (69) kits	27	5.2	29	4.4	13	2.5														69	12.0	
FY 2009 (23) kits					10	2.0	13	2.1													23	4.1
FY 2010 (20) kits							8	1.3	12	1.9											20	3.2
FY 2011 (6) kits									4	.6	2	.3									6	1.0
FY 2012 (18) kits											14	2.3	4	.7							18	3.1
FY 2013 (2) kits													2	.4							2	.4
FY 2014 (10) kits															10	1.9					10	1.9
FY 2015 ( ) kits																						
To Complete ( ) kits																						
<b>TOTAL</b>	<b>27</b>	<b>5.2</b>	<b>29</b>	<b>4.4</b>	<b>23</b>	<b>4.5</b>	<b>21</b>	<b>3.4</b>	<b>16</b>	<b>2.6</b>	<b>16</b>	<b>2.7</b>	<b>6</b>	<b>1.1</b>	<b>10</b>	<b>1.9</b>				<b>148</b>	<b>25.6</b>	

Installs include trainers.

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.

\*\*\* Final RNAV Mode S Quantity reduced by 16. Final Quantity of 148 equals 130 active P-3Cs, 16 EP-3 and 2 P-3Cs that received RNAV Mode S that have or will be struck.

Installation Schedule

	FY 2008 & PRIOR	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	27	8	8	8	5	9	4	5	5	9	4	4	4	10	2	2	2	2	5	5	4
Out	23	4	8	8	8	5	9	4	5	5	9	4	4	4	10	2	2	2	2	5	5

	FY 2014				FY 2015				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In	4	1	1		3	4	3			148
Out	4	4	1	1		3	4	3		148

MODIFICATION TITLE: P-3 READINESS IMPROVEMENT( OSIP 004-04 )

MODELS OF SYSTEMS AFFECTED: P-3/EP-3 TYPE MODIFICATION: Readiness Improvement

**DESCRIPTION/JUSTIFICATION:**

The purpose of this program is to incorporate a number of cost effective changes to the P-3/EP-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/EP-3 sustainment bridge, significantly enhancing the strategy of a smaller, more ready, more capable P-3/EP-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, HF-IP (Internet Protocol), Data Link, InfraRed Detection System, Autopilot, Inter Communication System, Magnetic Anomaly Detector (MAD), and Radar. Additionally, systems being evaluated for replacement include IFF Interrogator Set, and Magnetic Tape Recorder/Reproducer.

**DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:**

The COP NPDM authorizing MS-C / LRIP was approved 26 March 2004. The COP ADM authorizing FRP was approved 15 March 2006.

**FINANCIAL PLAN: (TOA, \$ IN MILLIONS)**

FISCAL YEAR	YEARS		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		COMPLET		TOTAL			
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$		
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
AUTO-PILOT KIT	76	4.6	32	2.0	32	2.1	3	0.2	3	0.2										146	9.0	
DIGITAL MAD SYSTEM KIT	3	0.1																		3	0.1	
HF RADIO/DATA LINK KIT	68	4.9	32	1.7	32	1.8	8	0.5	3	0.2	3	0.2								146	9.2	
(EO/IR)	56	1.0																			56	1.0
INTER COMMUNICATIONS KIT	12	0.7																			12	0.7
RADAR/INTEROGATOR																						
INSTALLATION KITS N/R		4.5		0.5		0.5																5.5
INSTALL EQUIPMENT																						
AUTO-PILOT SYSTEM	76	20.1	32	8.3	32	8.5	3	0.8	3	0.9											146	38.6
DIGITAL MAD SYSTEM	3	1.5																			3	1.5
HF RADIO/DATA LINK SYSTEM	68	24.1	32	10.5	32	10.7	8	2.7	3	1.0	3	1.0									146	50.1
(EO/IR)	56	21.2																			56	21.2
INTER COMMUNICATIONS SYSTEM	12	3.9																			12	3.9
RADAR/INTEROGATOR																						
INSTALL EQUIPMENT N/R		15.9		0.7		0.7																17.3
ECO				0.1		0.1		0.1		0.1		0.1										0.4
DATA		4.9		1.0		1.0		0.5								*						7.4
TRAINING EQUIP		8.4		2.0		2.0																12.4
SUPPORT EQUIP		1.3		0.6		0.6																2.5
ILS		4.2		1.6		1.0		0.6		0.5						*						8.1
OTHER SUPPORT		15.1		3.6		2.8		1.2		1.4		0.7		0.1								24.9
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	116	6.0	87	5.3	64	4.3	64	4.4	11	0.7	6	0.4	3	0.2							351	21.3
TOTAL PROCUREMENT		142.5		37.9		36.1		10.9		5.0		2.4		0.3								235.0

Asterisk (\*) indicates amount value less than \$51K

1. Totals do not add due to rounding.
2. HF-IP transferred to AIP in OSIP 29-94.
3. Prior year buy of (3) Digital Mad Kits will not be installed due to cancellation of program.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3/EP-3 MODIFICATION TITLE: P-3 Critical Obsolescence Program (OSIP 04-04) 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 2009: 01/09 FY 2010: 01/10 FY 2011: 01/11

DELIVERY DATE: FY 2009: 01/10 FY 2010: 01/11 FY 2011: 01/12

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2008 & PY(76) kits*	50	4.5	26	1.7															76	6.2
FY 2009 (32) kits					32	2.1													32	2.1
FY 2010 (32) kits							32	2.2											32	2.2
FY 2011 (3) kits									3	.2									3	.2
FY 2012 (3) kits											3	.2							3	.2
FY 2013 () kits																				
FY 2014 () kits																				
FY 2015 () kits																				
To Complete () kits																				
<b>TOTAL</b>	<b>50</b>	<b>4.5</b>	<b>26</b>	<b>1.7</b>	<b>32</b>	<b>2.1</b>	<b>32</b>	<b>2.2</b>	<b>3</b>	<b>.2</b>	<b>3</b>	<b>.2</b>						<b>146</b>	<b>11.0</b>	

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	50		9	9	8		11	11	10		11	11	10		1	1	1		1	1	1
Out	45	5		9	9	8		11	11	10		11	11	10		1	1	1		1	1

	FY 2014				FY 2015				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										146
Out	1									146

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3/EP-3

MODIFICATION TITLE: P-3 Critical Obsolescence Program (OSIP 04-04) HF Radio / 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 2009: 01/09

FY 2010: 01/10

FY 2011: 01/11

DELIVERY DATE: FY 2009: 01/10

FY 2010: 01/11

FY 2011: 01/12

(\$ in Millions)

Cost:	Prior years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL				
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$			
FY 2008 & PY (68) kits	17	1.1	51	3.3																68	4.4		
FY 2009 (32) kits					32	2.1															32	2.1	
FY 2010 (32) kits							32	2.1														32	2.1
FY 2011 (8) kits									8	.5												8	.5
FY 2012 (3) kits											3	.2										3	.2
FY 2013 (3) kits													3	.2								3	.2
FY 2014 ( ) kits																							
FY 2015 ( ) kits																							
To Complete ( ) kits																							
<b>TOTAL</b>	17	1.1	51	3.3	32	2.1	32	2.1	8	.5	3	.2	3	.2							146	9.6	

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In	17	12	13	13	13		11	11	10		11	11	10		3	3	2		1	1	1	
Out	12	5	12	13	13	13		11	11	10		11	11	10		3	3	2		1	1	1

	FY 2014				FY 2015				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In		1	1	1						146
Out	1		1	1	1					146

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3

MODIFICATION TITLE: P-3 Critical Obsolescence Program (OSIP 04-04) Infrared Detection (EO/IR)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Installation will be accomplished by contractor mod teams.

ADMINISTRATIVE LEADTIME: 5 Months

PRODUCTION LEADTIME: 10 Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

(\$ in Millions)

Cost:	Prior years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2008 & PY (56) kits	46	.5	10	.3															56	.7
FY 2009 () kits																				
FY 2010 () kits																				
FY 2011 () kits																				
FY 2012 () kits																				
FY 2013 () kits																				
FY 2014 () kits																				
FY 2015 () kits																				
To Complete () kits																				
<b>TOTAL</b>	46	.5	10	.3															56	.7

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	46		5	5																	
Out	40	6		5	5																

	FY 2014				FY 2015				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										56
Out										56

MODIFICATION TITLE: SSI-K( OSIP 005-05 )

MODELS OF SYSTEMS AFFECTED: All P-3 T/M/S TYPE MODIFICATION: Sustainment

DESCRIPTION / JUSTIFICATION:

The Special Structural Inspection - Kits Program is an Operational Safety 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. Aircraft that have received an Enhanced Special Structural Inspection (ESSI) require only the Center Box subset of an SSI-K. These Center Box subset install kits are shown separately.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Program is in full rate production.

FINANCIAL PLAN: (TOA, \$ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		TO COMPLETE		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
RDT&E																					
PROCUREMENT																					
INSTALLATION KITS																					
CENTER BOX KIT	24	5.7	10	3.3	3	1.0	11	3.8	3	2.1									51	15.9	
ZONE 5 MITIGATION KIT	32	16.7	16	8.2	6	3.1	12	6.4											66	34.5	
OUTER WING REPLACEMENT KIT	17	211.4			12	153.9													29	365.3	
Rotable Pool Outer Wing Kit	7	13.5																	7	13.5	
SSI-K KIT (A-Kits)	78	63.1	4	3.1			1	1.0	3	4.0	1	1.6							87	72.7	
INSTALLATION KITS N/R		9.2																		9.2	
INSTALL EQUIPMENT																					
INSTALL EQUIPMENT N/R																					
ECO																					
CENTER WING FABRICATION						0.1															0.1
SSI-K KIT ECP						0.3															0.3
OUTER WING KIT ECP																					
DATA		1.4				0.2		0.1													1.6
TRAINING EQUIP																					
SUPPORT EQUIP		10.5		4.0		4.0		0.1													18.5
ILS		2.5		1.3		1.2		0.1		0.3		0.6									5.9
OTHER SUPPORT		26.8		16.6		18.7		6.0		6.2		2.4		2.0							78.6
INTERIM CONTRACTOR SUPPORT																					
INSTALLATION COST	54	269.7	57	163.6	47	149.1	30	136.2	36	113.4	5	14.6	4	25.7					233	872.3	
TOTAL PROCUREMENT		630.5		200.0		331.5		153.5		126.0		19.2		27.7							1488.5

1. No Install Costs associated with Rotable Pool Outer Wing Kits.
2. EP-3 SSI-K Kits have been included in SSI-K Kit Line and Zone 5 Mitigation Kit Line.
3. FY-09 OCO funds 6 Zone 5 Installs in FY-09 and 6 Zone 5 Installs in FY-10.
4. FY-10 OCO funds 8 Outer Wing Installs in FY-10.

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: 5 Months PRODUCTION LEADTIME: 17 Months

CONTRACT DATES: FY 2009 3/09 FY 2010: \_\_\_\_\_ FY 2011: 3/11

DELIVERY DATE: FY 2009 8/10 FY 2010: \_\_\_\_\_ FY 2011: 8/12

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2008 & PY (78) kits	37	158.2	16	101.5	15	91.3	10	60.0											78	410.1
FY 2009 (4) kits							2	12.5	2	12.9									4	25.4
FY 2010 ( ) kits																				
FY 2011 (1) kits											1	7.9							1	7.9
FY 2012 (3) kits													3	19.4					3	19.4
FY 2013 (1) kits													1	6.3					1	6.3
FY 2014 ( ) kits																				
FY 2015 ( ) kits																				
To Complete ( ) kits																				
<b>TOTAL</b>	<b>37</b>	<b>158.2</b>	<b>16</b>	<b>101.5</b>	<b>15</b>	<b>91.3</b>	<b>12</b>	<b>72.5</b>	<b>2</b>	<b>12.9</b>	<b>1</b>	<b>7.9</b>	<b>4</b>	<b>25.7</b>					<b>87</b>	<b>470.0</b>

1. 12 SSI-K Installs are for EP-3 aircraft

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	37	4	5	4	3	4	4	4	3	3	3	3	3	1	1			1			
Out	37			4	5	4	3	4	4	4	3	3	3	3	3	1	1				1

  

	FY 2014				FY 2015				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In	1	1	1	1						87
Out			1	1	1	1				87

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) Center Box

INSTALLATION INFORMATION: \_\_\_\_\_

METHOD OF IMPLEMENTATION: Installation will be accomplished by contractor mod teams.

ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2009: 2/09 FY 2010: 2/10 FY 2011: 12/10

DELIVERY DATE: FY 2009: 2/10 FY 2010: 2/11 FY 2011: 12/11

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2008 & PY (24) kits	12	8.1	8	4.4	4	2.2													24	14.7
FY 2009 (10) kits					10	5.6													10	5.6
FY 2010 (3) kits							3	1.7											3	1.7
FY 2011 (11) kits									11	6.5									11	6.5
FY 2012 (3) kits											3	1.9							3	1.9
FY 2013 ( ) kits																				
FY 2014 ( ) kits																				
FY 2015 ( ) kits																				
To Complete ( ) kits																				
<b>TOTAL</b>	<b>12</b>	<b>8.1</b>	<b>8</b>	<b>4.4</b>	<b>14</b>	<b>7.8</b>	<b>3</b>	<b>1.7</b>	<b>11</b>	<b>6.5</b>	<b>3</b>	<b>1.9</b>						<b>51</b>	<b>30.4</b>	

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	12	2	2	2	2	3	3	4	4		1	1	1	1	3	3	4	1	1	1	
Out	12				2	2	2	2	3	3	4	4		1	1	1	1	3	3	4	1

	FY 2014				FY 2015				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										51
Out	1	1								51

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: All P-3 T/M/S MODIFICATION TITLE: P-3 / EP-3 Outer Wing Replacement Kits (OSIP 05-05)

INSTALLATION INFORMATION: \_\_\_\_\_

METHOD OF IMPLEMENTATION: Installation will be accomplished by contractor mod teams.

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 24 Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: 1/10 FY 2011: \_\_\_\_\_

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: 1/12 FY 2011: \_\_\_\_\_

(\$ in Millions)

Cost:	Prior years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2008 & PY (17) kits*					8	35.3	9	39.6											17	74.9
FY 2009 () kits																				
FY 2010 (12) kits									11	48.7	1	4.7							12	53.4
FY 2011 () kits																				
FY 2012 () kits																				
FY 2013 () kits																				
FY 2014 () kits																				
FY 2015 () kits																				
To Complete () kits																				
<b>TOTAL</b>					8	35.3	9	39.6	11	48.7	1	4.7							29	128.3

\*Notes

\*FY08 Outer Wing Kits procured with FY08 Supplemental Funds

\*\*FY10 OCO funds 8 Outer Wing Installs in FY-10

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In							1	7	1	3	3	2		3	4	4		1			
Out										1	7	1	3	3	2			3	4	4	1

  

	FY 2014				FY 2015				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										29
Out										29

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: All P-3 T/M/S MODIFICATION TITLE: P-3 / EP-3 Zone 5 Mitigation Kits (OSIP 05-05)

INSTALLATION INFORMATION: \_\_\_\_\_

METHOD OF IMPLEMENTATION: Installation will be accomplished by contractor mod teams.

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 10 Months

CONTRACT DATES: FY 2009: 1/09 FY 2010: 1/10 FY 2011: 1/11

DELIVERY DATE: FY 2009: 11/09 FY 2010: 11/10 FY 2011: 11/11

(\$ in Millions)

Cost:	Prior years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2008 & PY (32) kits	5	103.5	27	13.7															32	117.2
FY 2009 (16) kits			6	44.0	10	14.7													16	58.7
FY 2010 (6) kits							6	22.3											6	22.3
FY 2011 (12) kits									12	45.4									12	45.4
FY 2012 () kits																				
FY 2013 () kits																				
FY 2014 () kits																				
FY 2015 () kits																				
To Complete () kits																				
<b>TOTAL</b>	<b>5</b>	<b>103.5</b>	<b>33</b>	<b>57.7</b>	<b>10</b>	<b>14.7</b>	<b>6</b>	<b>22.3</b>	<b>12</b>	<b>45.4</b>								<b>66</b>	<b>243.6</b>	

\*Notes

\*27 Zone 5 Installs funded with FY08 Supplemental; 3 in FY08 and 24 in FY09

\*\*12 Zone 5 Installs funded with FY09 OCO; 6 in FY09 and 6 in FY10

\*\*\*12 Zone 5 Installs are for EP-3 aircraft

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	5	7	7	7	12	2	2	3	3	1	1	2	2	3	3	3	3				
Out	5				7	7	7	12	2	2	3	3	1	1	2	2	3	3	3	3	

	FY 2014				FY 2015				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										66
Out										66

MODIFICATION TITLE: P-3 MISSION SYSTEMS( OSIP 006-08 )

MODELS OF SYSTEMS AFFECTED: P-3C TYPE MODIFICATION: 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 P-3C Mission Systems Sustainment program will ensure that the P-3C aircraft continues to meet the Navy's requirement to perform Anti-Submarine Warfare (ASW), Anti-Surface Warfare (ASUW), Over-the-Horizon Targeting (OTH-T), and Command, Control, Communications, Computers, and Intelligence (C4I) until Full Operational Capability (FOC) of MMA is achieved (2019). Sustaining the sensor capabilities provided by the APS-137D (V) 5 imaging radar, the Advanced Imaging Multi-Spectral Sensor (AIMS) electro optical/infrared system, ALR 95 ESM, Tactical Common Data Link (TCDL), small circular area of probability weapon system (Maverick, SLAM, SLAM-ER, provisions to carry and launch all Mil Std 1760 Digital weapons with Digital Stores Management System, ALE-47/AAR-47 missile warning countermeasures due to obsolescence is essential in order to maintain these vital capabilities. Additional systems and capabilities may be required in order to remain effective in the Sea Power 21 Construct. These systems include: APS 137 radar; Acoustic systems, AIMS EO/IR; MATT; Link 16; Global Communication & Control System - Maritime (GCCS-M); Integrated Tactical Picture (ITP); INMARSAT; Precision Targeting Workstation (PTW); OASIS; Video Distribution Controller (VDC); Tactical Mission Computer; ALR-95 ESM; DAMA Satcom; MST; TC DL; Recorders including the High Resolution Digital Recorder; ALE47/AAR47; Digital Stores Management System (DSMS), Advanced Data Storage System (ADSS); all weapon systems including missiles, torpedoes, mines, as well as acoustic system upgrades.

These improvements are a vital element of the P-3 sustainment bridge for mission aircraft, including AIP and BMUP, significantly enhancing the strategy of a smaller, more ready, more capable P-3 force during the bridge to Multi-Mission Maritime Aircraft (MMA). P-3 C Mission Systems Sustainment is a branch of the ASW Maritime Improvement program (AMIP) to provide for obsolescence, technology refresh and technology insertion to P-3C mission systems.

**DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:**

This modification makes maximum use of previously developed subsystems.

**FINANCIAL PLAN: (TOA, \$ IN MILLIONS)**

FISCAL YEAR	PRIOR YEARS		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		TO COMPLETE		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
RDT&E																					
PROCUREMENT																					
INSTALLATION KITS																					
INSTALLATION KITS N/R																					
INSTALL EQUIPMENT																					
BMUP TECH REFRESH/INSERTION													3.0	1.8	5.0	3.7				8.0	5.5
ADSS w/OASIS FUNCTIONALITY					17.0	2.8	8.0	1.3	17.0	2.9	17.0	2.9	7.0	1.3						66.0	11.3
APS 137 RADAR TECH REFRESH/INSERTION							12.0	0.5	12.0	0.5	12.0	0.5								36.0	1.4
VIDEO DISTRIBUTION CONTROLLER																					
TACTICAL MISSION COMPUTER							24.0	2.4	24.0	2.4	24.0	2.4								72.0	7.2
MATT TECH REFRESH/INSERTION																					
TCDL TECH REFRESH/INSERTION							12.0	0.6	12.0	0.6	12.0	0.6								36.0	1.8
AIRBORNE ADV DIGITAL NETWORK SYSTEM																					
INMARSAT							16.0	0.7	16.0	0.7	16.0	0.7	11.0	0.6						59.0	2.7
INTEGRATED TACTICAL PICTURE							16.0	0.4	16.0	0.4	16.0	0.4	11.0	0.3						59.0	1.5
INSTALL EQUIPMENT N/R			0.8		9.2		9.2				0.4										19.6
ECO				0.6		0.6		0.1		0.1		*		*		*					1.4
DATA			0.1		0.1		0.2		0.1		0.1										0.6
TRAINING EQUIP			0.2		0.1		0.8		0.2		*		*								1.3
SUPPORT EQUIP					0.1		0.1		0.1		*		*								0.3
ILS					0.3		0.1		0.1		0.1		0.1		0.1		*				0.8
OTHER SUPPORT			2.7		4.6		3.5		1.1		1.2		0.7		0.5		1.8				16.1
INTERIM CONTRACTOR SUPPORT																					
TOTAL PROCUREMENT			3.7		14.9		17.3		7.6		9.4		8.2		4.6		5.6				71.3

Asterisk (\*) indicates amount value less than \$51K

1. No install Schedule is depicted because the system are form fit functions done at an Organization Level.

Exhibit P-40, BUDGET ITEM JUSTIFICATION								DATE: February 2010							
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/APN-5 Aircraft Modifications								P-1 ITEM NOMENCLATURE 054400, E-2 SERIES							
Program Element for Code B Items:								Other Related Program Elements							
	Prior Years	ID Code	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total		
QUANTITY															
COST (In Millions)	1220.7	A	24.3	50.0	47.0		47.0	33.2	28.2	36.6	36.1	138.3	1614.2		
DESCRIPTION:															
<p>This line item funds modifications to the E-2 aircraft. The E-2 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-2 aircraft design service life is 10,000 flight hours with an average service life remaining through FY2020. The E-2 is a critical element of the Navy's Cooperative Engagement Capability (CEC). 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 and software of the MCU. The Outer Wing Panel (OWP) OSIP (87-88), funds OWP enhancements. The Reliability Enhancements OSIP (22-09) funds radar reliability improvement, cockpit lighting, radar altimeter improvements and In-Flight Propeller Balancing System (IPBS). High Frequency Internet-Protocol (HFIP) OSIP (2-10) provides Internet-Protocol Networking capability to 31 E-2C (Hawkeye 2000/MCU) aircraft, utilizing existing High Frequency radio set and new airborne Advanced Digital Networking System (ADNS) Internet Protocol router/gateway. The Critical Avionics OSIP (12-10) funds the obsolescence and hazard mitigation efforts for all primary and secondary sensors, communication media and basic navigation aids. The TE-2C Conversion OSIP (15-10) provides for mission essential equipment installs into TE-2C aircraft to convert them to the E-2C Hawkeye 2000 configuration. The Automatic Identification System (AIS) OSIP (2-11), will integrate this system into the E-2 mission computer and provide for a means to transfer AIS data from the aircraft to the warships in flight. The Radar Improvement program OSIP (5-11) supports portions of it's APS-145 Radar architecture dated from the 1960s and serious obsolescence issues are expected to disrupt normal operations if left unmitigated. The E-2 In-Flight Refueling (IFR) OSIP (3-12), provides extended range and longer endurance for Battlespace Surveillance, Management, and Targeting for 24/7 operations. The Dual Transmit Satellite Communications OSIP (1-13), provides the E-2 with an additional SATCOM radio satisfying a capability gap that is identified in Operation Enduring Freedom. The MODE 5/S OSIP (2-13) replaces the National Security Administration (NSA) de-certified Mode 4 Identification Friend or Foe (IFF) capability, which is no longer effective or suitable for modern military operations. Mode 5/S will support the Joint Initial Operational Capability (IOC) as defined by the Joint Requirements Oversight Council (JROC).</p>															
(TOA, \$ in Millions)															
<b>OSIP No.</b>	<b>Description</b>	<b>Prior Years</b>	<b>FY2009</b>	<b>FY2010</b>	<b>Base FY2011</b>	<b>OCO FY2011</b>	<b>Total FY2011</b>	<b>FY2012</b>	<b>FY2013</b>	<b>FY2014</b>	<b>FY2015</b>	<b>To Complete</b>	<b>Total</b>		
087-88	OUTER WING PANELS	119.9	0.3	0.3									120.6		
005-01	TECHNOLOGY INSERTION	67.3	8.0	9.3	10.0		10.0	10.3	10.8	11.2	11.4	65.4	203.7		
022-09	RELIABILITY ENHANCEMENTS		16.0	10.0									26.0		
002-10	HIGH FREQUENCY INTERNET PROTOCOL			0.3	0.4		0.4	0.4	0.4				1.5		
012-10	CRITICAL AVIONICS			12.8	31.2		31.2	14.2	3.1	1.5	0.2		63.1		
015-10	TE-2C CONVERSION			17.2									17.2		
002-11	AUTOMATIC IDENTIFICATION SYSTEM				0.8		0.8	0.1	0.1	0.1	0.1	0.1	1.3		
005-11	RADAR IMPROVEMENT PROGRAM				4.6		4.6	8.3	7.2	4.4	3.2		27.7		
003-12	IFR								2.7	14.8	16.4	72.3	106.3		
001-13	DUAL TRANSMIT SATCOM								3.1	3.1	3.2		9.4		
002-13	MODE 5/S								0.7	1.5	1.6	0.4	4.2		
	INACTIVE OSIPS	1033.4											1033.4		
<b>Total</b>		<b>1220.7</b>	<b>24.3</b>	<b>50.0</b>	<b>47.0</b>		<b>47.0</b>	<b>33.2</b>	<b>28.2</b>	<b>36.6</b>	<b>36.1</b>	<b>138.3</b>	<b>1614.2</b>		
<b>Note: Totals may not add due to rounding.</b>															

Exhibit P-3a Individual Modification

MODIFICATION TITLE: TECHNOLOGY INSERTION ( OSIP 005-01 )

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-2 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 cycle. Specific examples include video boards, memory boards, CPU cards, compilers, middleware, backplanes, and operating systems that will change or become obsolete.

Overseas Contingency Operations (OCO) effort: "E-2C Maritime Automatic Identification System (\$5M) " was added to Installation Kits, Data and Other Support in FY06. AIS is an O-Level install.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

The E-2 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 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
INSTALLATION KITS																					
OCO - MARITIME AUTOMATIC IDEN SYS	*42	0.7																	*42	0.7	
INSTALLATION KITS N/R																					
OCO - MARITIME AUTOMATIC IDEN SYS		0.1																			0.1
INSTALL EQUIPMENT																					
INSTALL EQUIPMENT N/R																					
ECO																					
DATA		0.3		0.4		*		*		*		*		*		*		0.3			1.3
TRAINING EQUIP																					
SUPPORT EQUIP																					
ILS		2.9		0.6		0.3		0.2		0.4		0.4		0.5		0.5		3.4		9.2	
OTHER SUPPORT		63.3		6.9		9.0		9.8		9.8		10.3		10.7		10.9		61.7		192.4	
INTERIM CONTRACTOR SUPPORT																					
TOTAL PROCUREMENT		67.3		8.0		9.3		10.0		10.3		10.8		11.2		11.4		65.4		203.7	

Asterisk (\*) indicates amount value less than \$51K

Note:

- \* 2 of the 42 kits are Validation and Verification Kits.

Exhibit P-3a

Individual Modification

MODIFICATION TITLE: RELIABILITY ENHANCEMENTS ( OSIP 022-09 )

MODELS OF SYSTEMS AFFECTED: E-2C

TYPE MODIFICATION: Mission Performance Enhancements

DESCRIPTION/JUSTIFICATION:

OSIP provides for Radar Reliability Improvement, Cockpit Lighting and Radar Altimeter Improvements. The Radar Reliability effort will improve the reliability of the number one degrader of the E-2C, the APS-145 radar. Cockpit Lighting Improvements will address the readiness and safety of flight issues associated with frequent inoperative and intermittent flight instrument lighting associated with outdated lighting configuration. Radar Altimeter is current considered an ineffective Safety of Flight instrument. Radar Altimeter Improvement will relocate low altitude warning light to the aircrews normal scan, and provide dimming capability. The In-Flight Propeller Balancing System (IPBS) reduces vibration levels throughout the ground and flight range by continuously balancing the propulsion system resulting in increased propulsion system and avionics component reliability. IPBS also completely eliminates manpower and CVN operational impacts associated with manual propeller balancing.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
INSTALLATION KITS			133	1.0	30	4.4													133	5.5	
INSTALLATION KITS (A Kits)																					
INSTALLATION KITS N/R				.5	1	.9													1	1.5	
INSTALL EQUIPMENT			73	4.5															73	4.5	
INSTALL EQUIPMENT N/R				4.0																	4.0
ECO																					
DATA				.5		.5															1.0
TRAINING EQUIP			16	.2		.2													16	.3	
SUPPORT EQUIP			7	1.1		.1													7	1.2	
ILS				1.2		.5															1.7
OTHER SUPPORT				2.3		2.3															4.6
INTERIM CONTRACTOR SUPPORT																					
INSTALLATION COST			**	.6	102**	1.1	11	***	20	***									133	1.7	
TOTAL PROCUREMENT				16.0		10.0															26.0

Asterisk (\*) indicates amount value less than \$51K

Notes:

- \*\* FY09 Congressional Add funds 102 installs in FY10.
- \*\*\* FY10 Congressional Add funds 11 installs in FY11 and 20 installs in FY12.
- Installation Kits N/R includes a Verification Kit.

**Exhibit P-3a**

MODELS OF SYSTEMS AFFECTED: E-2C MODIFICATION TITLE: RELIABILITY ENHANCEMENTS ( OSIP 022-09 )

INSTALLATION INFORMATION: Reliability Enhancements

METHOD OF IMPLEMENTATION: Depot-Level Field Team Modification

ADMINISTRATIVE LEADTIME: \_\_\_\_\_ Months PRODUCTION LEADTIME: \_\_\_\_\_ Months

CONTRACT DATES: FY 2009: Sep 09 FY 2010: Sep 10 FY 2011: \_\_\_\_\_

DELIVERY DATE: FY 2009: Dec 09 FY 2010: Mar 11 FY 2011: \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY ( ) kits																					
FY 2009 (102) kits			*	.6	102	*														102	.6
FY 2010 (31) kits					**	1.1	11	**	20	**										31	1.1
FY 2011 ( ) kits																					
FY 2012 ( ) kits																					
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
TO COMPLETE ( ) kits																					
<b>Total</b>			*	.6	102	**	1.1	11	**	20	**									133	1.7

\* FY09 Congressional Add funds 102 installs in FY10.

\*\* FY10 Congressional Add funds 11 installs in FY11 and 20 installs in FY12.

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In					25	26	25	26		4	4	3	5	5	5	5					
Out					25	26	25	26		4	4	3	5	5	5	5					

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										133
Out										133

Exhibit P-3a

MODIFICATION TITLE: CRITICAL AVIONICS (OSIP 012-10)

MODELS OF SYSTEMS AFFECTED: E-2C

TYPE MODIFICATION: Mission Performance Enhancements

DESCRIPTION/JUSTIFICATION:

Critical Avionics addresses E-2 avionics obsolescence, reliability, functionality and hazard mitigation efforts for primary and secondary sensors, communication, and navigation systems. Improves the reliability and functionality of the current E-2 fixed wire HF antenna which supports only a single radio and breaks often, creating safety and operational impacts by upgrading to an antenna suite which is more reliable, capable and provides multiple transmission paths on and off the aircraft. Addresses obsolescence and improves the reliability and functionality of the current HF radio set by upgrading to a more capable and reliable radio suite which includes automatic link establishment, secure data and voice capability and additional voice and data channels. Addresses obsolescence and improves the reliability and functionality of the current SATCOM receive system (MATT) radio by upgrading to a radio which can receive current and future broadcast waveforms, can communicate using current and future cryptographic algorithms and can be integrated with the E-2 weapons systems more effectively, reducing startup, load, and set up time and reducing operator workload and troubleshooting requirements. Addresses obsolescence and improves the reliability and functionality of the current V/UHF radios by incorporating an improved ARC-210 radio which includes secure data and voice capability using current and future cryptographic algorithms and which includes a growth path to future applications such as Joint Precision Aircraft Landing System (JPALS). Addresses obsolescence and improves the reliability and functionality of the current KY-58 COMSEC device by upgrading to a system which provides voice and data encryption using current and future cryptographic algorithms. Improves the Cooperative Engagement Capability (CEC) system reliability which addressing significant obsolescence and crypto upgrade issues by replacement of four Weapons Replaceable Assemblies (WRAs )(3 processors and the receiver synthesizer) with a single WRA combining these functions. The replacement WRA will be common to E-2D, surface combatants and USMC deployed versions of CEC.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Not Applicable

FINANCIAL PLAN: (TOA, \$ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		TO COMPLETE		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
RDT&E																					
PROCUREMENT																					
INSTALLATION KITS																					
MATT REPLACEMENT					1	*	20	0.8	5	0.2	2	0.1	2	0.1						30	1.2
KY-58							1	*	1	*	62	1.0								64	1.1
HF ANTENNA							1	*	19	0.3	10	0.2								30	0.5
HF RADIO					1	*	16	0.2	13	0.1										30	0.3
ARC-210					1	*	14	0.1	4	*										19	0.2
CEC																					
INSTALLATION KITS N/R							4.1		1.9		0.6		0.1								6.6
INSTALL EQUIPMENT																					
MATT REPLACEMENT					1	0.2	20	4.4	5	1.2	2	0.5	2	0.5						30	6.8
KY-58																					
HF ANTENNA					1	0.1	19	1.6	10	0.8										30	2.5
HF RADIO					1	0.3	16	5.2	13	4.3										30	9.9
ARC-210					1	0.3	14	4.2	4	1.2										19	5.7
CEC																					
INSTALL EQUIPMENT N/R																					
ECO																					
DATA							1.2		1.8		1.2		0.1								4.3
TRAINING EQUIP								9	3.2	2	0.7									11	3.9
SUPPORT EQUIP							0.3		0.7												1.1
ILS							1.5		1.7		0.9		0.6		0.3		0.2				5.3
OTHER SUPPORT							4.7		5.1		1.9		0.4		0.2						12.3
INTERIM CONTRACTOR SUPPORT																					
INSTALLATION COST								4	0.1	70	0.7	33	0.3	64	0.4	2	*			173	1.5
TOTAL PROCUREMENT							12.8		31.2		14.2		3.1		1.5		0.2				63.1

Asterisk (\*) indicates amount value less than \$51K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: E-2C MODIFICATION TITLE: CRITICAL AVIONICS (OSIP 012-10) - MATT REPLACEMENT

INSTALLATION INFORMATION: CRITICAL AVIONICS

METHOD OF IMPLEMENTATION: DEPOT FIELD MOD TEAM

ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2009 \_\_\_\_\_ FY 2010 Mar 10 FY 2011 Mar 11

DELIVERY DATE: FY 2009 \_\_\_\_\_ FY 2010 Sep 10 FY 2011 Sep 11

(\$ in Millions)

Cost:	PRIOR YEARS		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		TO COMPLETE		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY () kits																					
FY 2009 () kits																					
FY 2010 (1) kits							1	*												1	*
FY 2011 (20) kits									20	0.2										20	0.2
FY 2012 (5) kits											5	0.1								5	0.1
FY 2013 (2) kits													2	*						2	*
FY 2014 (2) kits															2	*				2	*
FY 2015 () kits																					
TO COMPLETE () kits																					
Total							1	*	20	0.2	5	0.1	2	*	2	*				30	0.3

Asterisk (\*) indicates amount value less than \$51K

Installation Schedule

FY2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
In									1								5	5	5	5	1	1	2	1
Out									1								5	5	5	5	1	1	2	1

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In	1	1			1	1				30
Out	1	1			1	1				30

Asterisk (\*) indicates amount value less than \$51K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: E-2C MODIFICATION TITLE: CRITICAL AVIONICS (OSIP 012-10) - KY-58

INSTALLATION INFORMATION: CRITICAL AVIONICS

METHOD OF IMPLEMENTATION: DEPOT FIELD MOD TEAM

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 9 Months

CONTRACT DATES: FY 2009 \_\_\_\_\_ FY 2010 \_\_\_\_\_ FY 2011 Dec 10

DELIVERY DATE: FY 2009 \_\_\_\_\_ FY 2010 \_\_\_\_\_ FY 2011 Sep 11

(\$ in Millions)

Cost:	PRIOR YEARS		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		TO COMPLETE		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY () kits																					
FY 2009 () kits																					
FY 2010 () kits																					
FY 2011 (1) kits									1	*										1	*
FY 2012 (1) kits											1	*								1	*
FY 2013 (62) kits													62	0.4						62	0.4
FY 2014 () kits																					
FY 2015 () kits																					
TO COMPLETE () kits																					
<b>Total</b>									1	*	1	*	62	0.4						64	0.4

Asterisk (\*) indicates amount value less than \$51K

Installation Schedule

FY2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
	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				1			

  

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In	15	16	16	15						64
Out	15	16	16	15						64

Asterisk (\*) indicates amount value less than \$51K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: E-2C MODIFICATION TITLE: CRITICAL AVIONICS (OSIP 012-10) - HF ANTENNA

INSTALLATION INFORMATION: CRITICAL AVIONICS

METHOD OF IMPLEMENTATION: DEPOT FIELD MOD TEAM

ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2009 \_\_\_\_\_ FY 2010 Mar 10 FY 2011 Mar 11

DELIVERY DATE: FY 2009 \_\_\_\_\_ FY 2010 Sep 10 FY 2011 Sep 11

(\$ in Millions)

Cost:	PRIOR YEARS		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		TO COMPLETE		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY () kits																					
FY 2009 () kits																					
FY 2010 (1) kits							1	*												1	*
FY 2011 (19) kits									19	0.4										19	0.4
FY 2012 (10) kits											10	0.2								10	0.2
FY 2013 () kits																					
FY 2014 () kits																					
FY 2015 () kits																					
TO COMPLETE () kits																					
Total							1	*	19	0.4	10	0.2								30	0.6

Asterisk (\*) indicates amount value less than \$51K

Installation Schedule

FY2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013							
	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	5	5		
Out									1								4	5	5	5	5	5		

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										30
Out										30

Asterisk (\*) indicates amount value less than \$51K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: E-2C MODIFICATION TITLE: CRITICAL AVIONICS (OSIP 012-10) - HF RADIO

INSTALLATION INFORMATION: CRITICAL AVIONICS

METHOD OF IMPLEMENTATION: DEPOT FIELD MOD TEAM

ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2009 \_\_\_\_\_ FY 2010 Mar 10 FY 2011 Mar 11

DELIVERY DATE: FY 2009 \_\_\_\_\_ FY 2010 Sep 10 FY 2011 Sep 11

(\$ in Millions)

Cost:	PRIOR YEARS		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		TO COMPLETE		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY () kits																					
FY 2009 () kits																					
FY 2010 (1) kits							1	*												1	*
FY 2011 (16) kits									16	0.1										16	0.1
FY 2012 (13) kits											13	0.1								13	0.1
FY 2013 () kits																					
FY 2014 () kits																					
FY 2015 () kits																					
TO COMPLETE () kits																					
Total							1	*	16	0.1	13	0.1								30	0.2

Asterisk (\*) indicates amount value less than \$51K

Installation Schedule

FY2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
In									1								4	4	4	4	4	3	3	3
Out									1								4	4	4	4	4	3	3	3

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										30
Out										30

Asterisk (\*) indicates amount value less than \$51K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: E-2C MODIFICATION TITLE: CRITICAL AVIONICS (OSIP 012-10) - ARC-210

INSTALLATION INFORMATION: CRITICAL AVIONICS

METHOD OF IMPLEMENTATION: DEPOT FIELD MOD TEAM

ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 10 Months

CONTRACT DATES: FY 2009 \_\_\_\_\_ FY 2010 Nov 09 FY 2011 Nov 10

DELIVERY DATE: FY 2009 \_\_\_\_\_ FY 2010 Sep 10 FY 2011 Sep 11

(\$ in Millions)

Cost:	PRIOR YEARS		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		TO COMPLETE		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY () kits																					
FY 2009 () kits																					
FY 2010 (1) kits							1	*												1	*
FY 2011 (14) kits									14	*										14	*
FY 2012 (4) kits											4	*								4	*
FY 2013 () kits																					
FY 2014 () kits																					
FY 2015 () kits																					
TO COMPLETE () kits																					
Total							1	*	14	*	4	*								19	*

Asterisk (\*) indicates amount value less than \$51K

Installation Schedule

FY2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013						
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4			
In									1							1	3	5	5	1	1	1	1
Out									1						1	3	5	5	1	1	1	1	

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										19
Out										19

Asterisk (\*) indicates amount value less than \$51K

Exhibit P-3a Individual Modification

MODIFICATION TITLE: TE-2C CONVERSION (OSIP 015-10)

MODELS OF SYSTEMS AFFECTED: TE-2C and E-2C TYPE MODIFICATION: Mission Critical

DESCRIPTION/JUSTIFICATION:  
 FY 2010 Overseas Contingency Operations (OCO) funding provides for mission essential equipment installs into TE-2C aircraft to convert them to the current E-2C Hawkeye 2000 configuration. The conversion of two TE-2C aircraft is required to address higher optempo requirements in addition to supplementing the Periodic Maintenance Interval (PMI) pipeline for the E-2C Hawkeye 2000.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
INSTALLATION KITS					2	16.4													2	16.4	
INSTALLATION KITS N/R																					
INSTALL EQUIPMENT																					
INSTALL EQUIPMENT																					
INSTALL EQUIPMENT N/R																					
ECO																					
DATA (ECP/TD)						0.1															0.1
TRAINING EQUIP																					
SUPPORT EQUIP																					
ILS						0.1															0.1
OTHER SUPPORT						0.6															0.6
INTERIM CONTRACTOR SUPPORT																					
INSTALLATION COST																					
TOTAL PROCUREMENT						17.2															17.2

Exhibit P-3a Individual Modification

MODIFICATION TITLE: UNIVERSAL AUTOMATIC INFORMATION SYSTEM ( OSIP 002-11)

MODELS OF SYSTEMS AFFECTED: E-2C

TYPE MODIFICATION: Mission Performance Enhancements

DESCRIPTION/JUSTIFICATION:

This funding will integrate and procure Universal Automatic System (UAIS) into the E-2 mission computer and provide for a means to transfer Automatic Information System (AIS) data from the aircraft inflight to the warships. This modification will integrate the current E-2 stand-alone prototype AIS system with the E-2 mission computer and displays allowing AIS tracks to be displayed and correlated with other track sources, such as radar. Additionally, the integration will allow AIS tracks to be transferred to other aircraft and warships over existing data links.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Not Applicable

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
INSTALLATION KITS																					
UNIVERSAL AUTOMATIC INFO SYSTEM							15	*	15	*	15	*	15	*	13	*				73	0.1
INSTALLATION KITS N/R																					
INSTALL EQUIPMENT							15	*	15	*	15	*	15	*	13	*				73	0.1
INSTALL EQUIPMENT N/R																					
ECO																					
DATA								0.1													0.1
TRAINING EQUIP																					
SUPPORT EQUIP								0.3													0.3
ILS								0.2		*		*		*		*		*			0.2
OTHER SUPPORT								0.2													0.2
INTERIM CONTRACTOR SUPPORT																					
INSTALLATION COST									15	0.1	15	0.1	15	0.1	15	0.1	13	0.1		73	0.3
TOTAL PROCUREMENT								0.8		0.1		0.1		0.1		0.1		0.1		0.1	1.3

Asterisk (\*) indicates amount value less than \$51K

**Exhibit P-3a**

MODELS OF SYSTEMS AFFECTED: E-2C MODIFICATION TITLE: UNIVERSAL AUTOMATIC INFORMATION SYSTEM (OSIP 002-11)

INSTALLATION INFORMATION: Universal Automatic Information System

METHOD OF IMPLEMENTATION: Depot Field Mod Team

ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: Mar 11

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: Sep 11

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY ( ) kits																					
FY 2009 ( ) kits																					
FY 2010 ( ) kits																					
FY 2011 (15) kits									15	0.1										15	0.1
FY 2012 (15) kits											15	0.1								15	0.1
FY 2013 (15) kits													15	0.1						15	0.1
FY 2014 (15) kits															15	0.1				15	0.1
FY 2015 (13) kits																	13	0.1		13	0.1
TO COMPLETE ( ) kits																					
<b>Total</b>									15	0.1	15	0.1	15	0.1	15	0.1	13	0.1		73	0.3

Asterisk (\*) indicates amount value less than \$51K

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In														5	5	5		5	5	5	
Out														5	5	5		5	5	5	

  

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In		5	5	5	5	5	5		13	73
Out		5	5	5	5	5	5		13	73

Exhibit P-3a

Individual Modification

MODIFICATION TITLE: RADAR IMPROVEMENT PROGRAM (OSIP 005-11)

MODELS OF SYSTEMS AFFECTED: E-2C

TYPE MODIFICATION: Mission Performance Enhancements

DESCRIPTION/JUSTIFICATION:

This funding will integrate and field improvements to the E-2C radar components that are expected to be unsupportable in the near term and are of a high failure rate. Such improvements will keep portions of the APS-145 radar viable until 2021, the expected retirement date of the Hawkeye 2000. This funding also supports necessary modifications within the APS-145 Radar Test Bench System (RTBS).

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Not Applicable

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
INSTALLATION KITS																					
RADAR IMPROVEMENT PROGRAM																					
INSTALLATION KITS N/R																					
INSTALL EQUIPMENT									36	2.1	43	2.6	30	1.8	20	1.2			129	7.8	
INSTALL EQUIPMENT N/R																					
ECO																					
DATA							0.4		0.3		0.1		0.1		0.1						1.0
TRAINING EQUIP											6	0.4								6	0.4
SUPPORT EQUIP							18	1.4	18	1.3	10	0.6	2	0.2		0.1				48	3.7
ILS							2.3		3.4		2.2		1.3		1.2						10.3
OTHER SUPPORT							0.6		0.7		0.6		0.5		0.3						2.7
INTERIM CONTRACTOR SUPPORT																					
INSTALLATION COST									36	0.5	43	0.6	30	0.4	20	0.3				129	1.8
TOTAL PROCUREMENT							4.6		8.3		7.2		4.4		3.2						27.7

**Exhibit P-3a**

MODELS OF SYSTEMS AFFECTED: E-2C MODIFICATION TITLE: RADAR IMPROVEMENT PROGRAM (OSIP 005-11)

INSTALLATION INFORMATION: Radar Improvement Program

METHOD OF IMPLEMENTATION: Depot Field Mod Team

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 3 Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY ( ) kits																					
FY 2009 ( ) kits																					
FY 2010 ( ) kits																					
FY 2011 ( ) kits																					
FY 2012 (36) kits									36	0.5										36	0.5
FY 2013 (43) kits											43	0.6								43	0.6
FY 2014 (30) kits													30	0.4						30	0.4
FY 2015 (20) kits															20	0.3				20	0.3
TO COMPLETE ( ) kits																					
Total									36	0.5	43	0.6	30	0.4	20	0.3				129	1.8

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In														9	9	9	9	10	11	11	11
Out														9	9	9	9	10	11	11	11

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In	10	10	5	5	5	5	5	5		129
Out	10	10	5	5	5	5	5	5		129

Exhibit P-40, BUDGET ITEM JUSTIFICATION							DATE: February 2010						
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/APN-5 Aircraft Modifications							P-1 ITEM NOMENCLATURE 054900, TRAINER A C SERIES						
Program Element for Code B Items:							Other Related Program Elements						
	Prior Years	ID Code	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total
QTY		A											
COST (In Millions)	105.2	A	17.7	17.2	24.0		24.0	21.3	16.9	17.7	19.0	29.4	268.2
<p>DESCRIPTION:</p> <p>This line item funds modifications to a group of trainer aircraft which includes T-34C, T-39, T-44A/C, TH-57, and TC-12. The trainer aircraft are described as follows: The T-34C is a single engine turbo-prop, two-seat aircraft produced by Beech Aircraft used for primary flight instruction; the T-39 is a dual-engine, multi-purpose jet aircraft used to train undergraduate flight officers; the T-44 is a twin-engine, multi-seat turboprop aircraft produced by Beech Aircraft used to simulate operation of multi engine aircraft, specifically the P-3; the TH-57 and TH-6 are single-engine, multi-seat rotary wing aircraft used for helicopter training. The overall goal of the modifications is to maintain safe and reliable operation of the trainer aircraft through the timely installation of necessary changes. Total number of T-44 and TH-57 aircraft are 54 and 126, respectively. A total of 28 aircraft will be modified in FY11 to incorporate Aviation Safety Upgrades. There will be 9 T-44's converted from the T-44A to the T-44C configuration and 19 TH-57B/C series converted to the TH-57D configuration.</p> <p>The specific modifications budgeted and programmed are:</p>													
(TOA, \$ in Millions)													
<u>OSIP No.</u>	<u>Description</u>	<u>Prior Years</u>	<u>FY2009</u>	<u>FY2010</u>	<u>Base FY2011</u>	<u>OCO FY2011</u>	<u>Total FY2011</u>	<u>FY2012</u>	<u>FY2013</u>	<u>FY2014</u>	<u>FY2015</u>	<u>To Complete</u>	<u>Total</u>
005-04	T-44 AVIONICS OBS	44.5	10.6	10.0	0.9		0.9					16.4	82.4
006-07	TH-57 SAFETY UPGRADE	8.4	6.4	6.4	22.4		22.4	21.3	16.9	17.7	19.0	9.8	128.3
007-07	T44 WING WIRING	1.1	0.7	0.7	0.7		0.7					3.2	6.3
	INACTIVE OSIPs	51.2											51.2
<b>Total</b>		<b>105.2</b>	<b>17.7</b>	<b>17.2</b>	<b>24.0</b>		<b>24.0</b>	<b>21.3</b>	<b>16.9</b>	<b>17.7</b>	<b>19.0</b>	<b>29.4</b>	<b>268.2</b>
<p>Note: Totals may not add due to rounding.</p>													

Exhibit P-3a Individual Modification

MODIFICATION TITLE: T-44 AVIONICS OBSOLESCENCE ( OSIP 005-04 )

MODELS OF SYSTEMS AFFECTED: T-44A/C 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. Following these Avionics Upgrades, the aircraft are designated T-44C. IMPACT: As avionics become BER due to lack of parts, spares are being depleted. Lack of avionics will ground aircraft and severely degrade CNATRA's ability to meet Pilot Training Requirements. Current plans call for T-44 to fly its training mission until 2025. 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 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
Install Kits	28	5.2	7	1.1	4	0.8											12	2.8	51	10.0	
Installation Kits N/R	3	4.7																	3	4.7	
Installation Equipment																					
Installation Equipment (B Kits)	28	22.6	7	4.8	4	3.4											12	11.3	51	42.1	
Installation Equipment N/R																					
Engineering Change Orders																					
Data		0.3																			.3
Training Equipment	5	8.5	2	3.4	2	4.1														9	16.0
Support Equipment																					
ILS																					
Other Support		*				0.3															.3
Interim Contractor Support																					
Installation Cost	17	3.1	10	1.2	9	1.5	6	0.9									12	2.2	54	8.9	
<b>Total Procurement</b>		44.5		10.6		10.0		.9										16.4			82.4

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than \$51K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: T-44A/C MODIFICATION TITLE: T-44 AVIONICS OBSOLESCENCE ( OSIP 005-04 )

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2009: Nov 08 FY 2010: Nov 09 FY 2011: \_\_\_\_\_

DELIVERY DATE: FY 2009: May 09 FY 2010: May 10 FY 2011: \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2008 & PY (31) kits	17	3.1	6	0.7	8	1.3													31	5.1
FY 2009 (7) kits			4	0.5			3	0.5											7	.9
FY 2010 (4) kits					1	0.2	3	0.5											4	.6
FY 2011 () kits																				
FY 2012 () kits																				
FY 2013 () kits																				
FY 2014 () kits																				
FY 2015 () kits																				
TO COMPLETE (12) kits																	12	2.2	12	2.2
TOTAL	17	3.1	10	1.2	9	1.5	6	0.9									12	2.2	54	8.9

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In	17			5	5			5	4			3	3									
Out	17			5	5			5	4			3	3									

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In									12	54
Out									12	54

Totals may not add due to rounding.

Exhibit P-3a Individual Modification

MODIFICATION TITLE: TH-57 SAFETY UPGRADE( OSIP 006-07 )

MODELS OF SYSTEMS AFFECTED: TH-57B/C TYPE MODIFICATION: Conversion/Safety

DESCRIPTION / JUSTIFICATION: The TH-57 is the sole platform for primary helicopter flight training for student aviators (USN, USMC, USCG) and foreign military pilots. This modernization effort capitalizes on technology improvements by increasing aircrew survivability and situational awareness while providing a fleet representative digital cockpit configuration. Obsolescence upgrades are to replace avionics purchased in 1981 through 1985, when the TH-57B and TH-57C aircraft were originally purchased.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: The components of this block upgrade will be COTS as turnkey items. ACI by the commercial contractor.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
Install Kits	2	1.5	10	2.9	5	2.0	19	6.0	18	6.0	20	6.6	19	6.4	20	7.6	13	3.7	126	42.6	
Install Kits Obsolescence							39	9.4	24	5.9	15	3.8	15	3.9	20	5.3	13	4.1	126	32.4	
Installation Kits N/R		2.9																		2.9	
Installation Equipment																					
Equipment	2	*	10	*	5	0.1	19	0.2	18	0.2	20	0.1	19	0.1	16	0.1	17	*	126	0.9	
Installation Equipment N/R																					
Engineering Change Orders																					
Data		0.1		*		*															0.2
Training Equipment		2.7		2.1		2.1		2.1		4.5		2.6		3.3		2.4		0.7		22.4	
Support Equipment																					
ILS																					
Other Support		1.0		0.6		0.9		1.1		1.3		1.0		1.0		1.1		0.4		8.4	
Interim Contractor Support																					
Installation Cost	2	0.2	10	0.7	5	1.4	19	3.8	18	3.4	20	2.8	19	2.9	16	2.4	17	0.9	126	18.5	
<b>Total Procurement</b>		<b>8.4</b>		<b>6.4</b>		<b>6.4</b>		<b>22.4</b>		<b>21.3</b>		<b>16.9</b>		<b>17.7</b>		<b>19.0</b>		<b>9.8</b>		<b>128.3</b>	

- Notes:
- Totals may not add due to rounding
  - Asterisk indicates amount less than \$51K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: TH-57B/C

MODIFICATION TITLE: TH-57 SAFETY UPGRADE( OSIP 006-07 )

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 1 Months

PRODUCTION LEADTIME: 3 Months

CONTRACT DATES: FY 2009: Oct 08 FY 2010: Oct 09 FY 2011: Oct 10

DELIVERY DATE: FY 2009: Jan 09 FY 2010: Jan 10 FY 2011: Jan 11

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2008 & PY(2) kits	2	0.2																	2	0.2
FY 2009 (10) kits			10	0.7															10	0.7
FY 2010 (5) kits					5	1.4													5	1.4
FY 2011 (19) kits							19	3.8											19	3.8
FY 2012 (18) kits									18	3.4									18	3.4
FY 2013 (20) kits											20	2.8							20	2.8
FY 2014 (19) kits													19	2.9					19	2.9
FY 2015 (16) kits															16	2.4			16	2.4
TO COMPLETE (17) kits																	17	0.9	17	0.9
<b>TOTAL</b>	<b>2</b>	<b>0.2</b>	<b>10</b>	<b>0.7</b>	<b>5</b>	<b>1.4</b>	<b>19</b>	<b>3.8</b>	<b>18</b>	<b>3.4</b>	<b>20</b>	<b>2.8</b>	<b>19</b>	<b>2.9</b>	<b>16</b>	<b>2.4</b>	<b>17</b>	<b>0.9</b>	<b>126</b>	<b>18.5</b>

Installation Schedule

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In	2		3	3	4		1	1	3		6	6	7		6	6	6		6	7	7
Out	2		3	3	4		1	1	3		6	6	7		6	6	6		6	7	7

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In		6	6	7		5	5	6	17	126
Out		6	6	7		5	5	6	17	126

Exhibit P-40, BUDGET ITEM JUSTIFICATION								DATE: February 2010					
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/APN-5 Aircraft Modifications							P-1 ITEM NOMENCLATURE 055600, C-2A(R) Series						
Program Element for Code B Items:							Other Related Program Elements						
	PRIOR YEARS	ID Code	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total
QUANTITY													
COST (In Millions)	368.3	A	25.0	28.4	16.0		16.0	18.1	6.4	3.0	3.0	2.8	471.0
DESCRIPTION:													
<p>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 mobilization support for special operations forces from land bases and carriers. The design service life of the C-2A(R) is 10,000 flight hours with 15,000 landings. Service Life Extension Program (SLEP) modifications increase the service life to 15,000 flight hours and 36,000 landings, remove and replace all aircraft wiring and install various upgrades to allow C-2A(R) to meet requirements into the next decade. The overall goal of the modifications is to continue procurement efforts for the C-2A(R) SLEP and the Critical Components Program. Critical Components are composed of Aighting &amp; Landings, Avionics Upgrades, Engine Power &amp; Propulsion, Hydraulic's, and Structural/Pressurization Engineering Change Proposals (ECPs). The C-2 Greyhound AIC-14A Internal Communications System (ICS) OSIP (16-10) provides for improvement and redesign of the of the C-2A's AN/AIC-14A C-2645C ICS.</p>													
(TOA, \$ in Millions)													
<b>OSIP No.</b>	<b>Description</b>	<b>Prior Years</b>	<b>FY2009</b>	<b>FY2010</b>	<b>Base FY2011</b>	<b>OCO FY2011</b>	<b>Total FY2011</b>	<b>FY2012</b>	<b>FY2013</b>	<b>FY2014</b>	<b>FY2015</b>	<b>To Complete</b>	<b>Total</b>
024-94	C-2A SLEP	362.5	22.9	18.5	13.9		13.9	15.6	4.3				437.6
011-07	CRITICAL COMPONENTS	5.8	2.2	2.8	2.1		2.1	2.5	2.1	3.0	3.0	2.8	26.3
016-10	C-2 GREYHOUND AIC-14A INTERNAL COMMUNICATION SYSTEM			7.1									7.1
<b>TOTAL</b>		<b>368.3</b>	<b>25.0</b>	<b>28.4</b>	<b>16.0</b>		<b>16.0</b>	<b>18.1</b>	<b>6.4</b>	<b>3.0</b>	<b>3.0</b>	<b>2.8</b>	<b>471.0</b>

Exhibit P-3a Individual Modification

MODIFICATION TITLE: C-2A(R) Blk Upgrade/Service Life Extension Program (SLEP) (OSIP 024-94)

MODELS OF SYSTEMS AFFECTED: C-2A(R) Aircraft TYPE MODIFICATION: MISSION PERFORMANCE ENHANCEMENTS

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, Trim Actuators, Outer Wing Panel Enhancements, and NP-2000 (8 bladed propeller).

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:  
 Development and Operational Testing (DT and OT) have been completed for the Structures and Rewire efforts included in this OSIP. Aircraft Rewire effort experienced technical difficulties during initial validation process and program was restructured resulting in a 2 year slip. Procurement of Rewire kits commenced in FY06. NP2000 has also experienced delays due to test article issues related to the program. It has also experienced a two year slip and has been restructured. DT and OT for NP2000 completed in 1st Qtr FY 2008.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
INSTALLATION KITS																					
ARC-210	35	3.0																	35	3.0	
CAINS II (AFC-156)	36	2.3																	36	2.3	
INTERIM AFC	5	.3																	5	.3	
INTERIM AFC-DERF	2	.1																	2	.1	
L-PROBE (AFC-161)	36	.3																	36	.3	
NP2000	7	1.1	2	.1	2	.2	8	.6	1	.1								20	2.1		
OWP CONVERSION (AYC-A)	19	3.1																	19	3.1	
OWP ENHANCEMENT (AFC-378)	66	6.1	2	*	2	*													70	6.1	
OWP ENHANCEMENT (AFC-Y)	4	10.8																	4	10.8	
REWIRE (AFC-162)	24	17.0	4	2.1	3	1.8	4	2.3	2	1.2								37	24.5		
REWIRE (AFC-162) - DERF	2	1.7																	2	1.7	
STRUCTURE (AFC-171) - DERF	1	.4																	1	.4	
STRUCTURE KIT (AFC-171)	30	8.9	3	.2															33	9.1	
TRIM ACTUATOR	70	.2																	70	.2	
INSTALLATION KITS N/R	6	45.3																	6	45.3	
INSTALL EQUIPMENT																					
CAINS II B KITS	50	6.1																	50	6.1	
INSTALL EQUIPMENT N/R		4.2																			4.2
ECO																					
DATA		16.4		.1		*		*													16.5
TRAINING EQUIP		7.7		.4		.5		1.0													9.6
SUPPORT EQUIP		4.6		.1																	4.6
ILS		6.4		.3		.3		.3		.3			.2								7.9
OTHER SUPPORT		141.9		3.3		3.2		2.5		3.1			1.5								155.3
INTERIM CONTRACTOR SUPPORT																					
INSTALLATION COST	338	74.6	19	16.3	11	12.5	5	7.0	12	10.9	3	2.7							388	124.0	
TOTAL PROCURMENT		362.5		22.9		18.5		13.9		15.6		4.3									437.6

Asterisk (\*) indicates amount value less than \$51K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: C-2A(R) Aircraft MODIFICATION TITLE: C-2A(R) Blk Upgrade/Service Life Extnsn Pgm (SLEP) (OSIP 024-94) - Structures Kits (AFC-171)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Concurrent w/PMI

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 10 Months

CONTRACT DATES: FY 2009: Oct 08 FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

DELIVERY DATE: FY 2009: Aug 09 FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2008 & PY (30) kits	26	29.6	4	4.7															30	34.4
FY 2009 (3) kits					3	3.6													3	3.6
FY 2010 ( ) kits																				
FY 2011 ( ) kits																				
FY 2012 ( ) kits																				
FY 2013 ( ) kits																				
FY 2014 ( ) kits																				
FY 2015 ( ) kits																				
TO COMPLETE ( ) kits																				
Total	26	29.6	4	4.7	3	3.6													33	38.0

Installation Schedule

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	26	1	1	1	1	1	1	1												
Out	22	1	1	1	1	1	1	1	1	1	1									

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										33
Out										33

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: C-2A(R) Aircraft MODIFICATION TITLE: C-2A(R) Blk Upgrade/Service Life Extnsn Pgm (SLEP) (OSIP 024-94) Rewire (AFC-162)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Concurrent w/PMI & Field Mod Team

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 14 Months

CONTRACT DATES: FY 2009: Oct 08 FY 2010: Oct 09 FY 2011: Oct 10

DELIVERY DATE: FY 2009: Dec 09 FY 2010: Dec 10 FY 2011: Dec 11

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2008 & PY (24) *	**13	20.9	6	10.1															19	30.9
FY 2009 (4) kits					4	8.1													4	8.1
FY 2010 (3) kits							3	6.6											3	6.6
FY 2011 (4) kits									4	9.1									4	9.1
FY 2012 (2) kits											2	2.5							2	2.5
FY 2013 ( ) kits																				
FY 2014 ( ) kits																				
FY 2015 ( ) kits																				
TO COMPLETE ( ) kits																				
<b>Total</b>	<b>13</b>	<b>20.9</b>	<b>6</b>	<b>10.1</b>	<b>4</b>	<b>8.1</b>	<b>3</b>	<b>6.6</b>	<b>4</b>	<b>9.1</b>	<b>2</b>	<b>2.5</b>						<b>32</b>	<b>57.2</b>	

\*2 Kits purchased in prior years were installed yet no longer reflect current design and could not be used  
 \*\*3 Kits were used for Prototype, Validation and Verification

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	13	1	1	2	2	1	1	1	1	1	1	1		1	1	1	1	1	1		
Out	13	1	1	1	2	1	1	1	2	1	1	1		1	1	1	1	1	1		

  

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										32
Out										32

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: C-2A(R) Aircraft MODIFICATION TITLE: C-2A(R) Blk Upgrade/Service Life Extnsn Pgm (SLEP) (OSIP 024-94) - Outer Wing Panel Enhancement

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Navy Forced Retrofit Component

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 4 Months

CONTRACT DATES: FY 2009: Oct 08 FY 2010: Oct 09 FY 2011: \_\_\_\_\_

DELIVERY DATE: FY 2009: Feb 09 FY 2010: Feb 10 FY 2011: \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (66) kits	61	13.1	5	0.7																66	13.9
FY 2009 (2) kits			2	0.3																2	0.3
FY 2010 (2) kits					2	0.3														2	0.3
FY 2011 ( ) kits																					
FY 2012 ( ) kits																					
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
TO COMPLETE ( ) kits																					
Total	61	13.1	7	1.0	2	0.3														70	14.5

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In	61	1	2	2	2		1	1														
Out	59	2	1	2	2	2		1	1													

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										70
Out										70

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: C-2A(R) Aircraft MODIFICATION TITLE: C-2A(R) Blk Upgrade/Service Life Extnsn Pgm (SLEP) (OSIP 024-94) - NP2000

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Concurrent w/PMI Drive in Mod

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2009: Oct 08 FY 2010: Oct 09 FY 2011: Oct 10

DELIVERY DATE: FY 2009: Oct 09 FY 2010: Oct 10 FY 2011: Oct 11

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2008 & PY (7) kits	*4	0.4	2	0.4															6	0.8
FY 2009 (2) kits					2	0.4													2	0.4
FY 2010 (2) kits							2	0.5											2	0.5
FY 2011 (8) kits									8	1.9									8	1.9
FY 2012 (1) kits										1	0.2								1	0.2
FY 2013 ( ) kits																				
FY 2014 ( ) kits																				
FY 2015 ( ) kits																				
TO COMPLETE ( ) kits																				
<b>Total</b>	<b>4</b>	<b>0.4</b>	<b>2</b>	<b>0.4</b>	<b>2</b>	<b>0.4</b>	<b>2</b>	<b>0.5</b>	<b>8</b>	<b>1.9</b>	<b>1</b>	<b>0.2</b>							<b>19</b>	<b>3.8</b>

\* Prototype Kit / Kit was Validation & Verification Kit

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	4	1		1		1		1		1		1		2	2	2	2	1			
Out	4		1		1		1		1		1		1	2	2	2	2	1			

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										19
Out										19

Exhibit P-3a	Individual Modification																																																																																																																																																																																																																																																																																																																																																																																			
MODIFICATION TITLE:	<u>C-2 Greyhound AIC-14A Internal Communications System (OSIP 016-10)</u>																																																																																																																																																																																																																																																																																																																																																																																			
MODELS OF SYSTEMS AFFECTED:	<u>C-2A(R) Aircraft</u> <span style="float: right;">TYPE MODIFICATION: <u>Mission Critical</u></span>																																																																																																																																																																																																																																																																																																																																																																																			
<p>DESCRIPTION/JUSTIFICATION:                  FY 2010 Overseas Contingency Operations (OCO) funding provides for improvement and redesign of the C-2A's AN/AIC-14A C-2645E/D/C-2645C Internal Communications System (ICS) 35 aircraft + trainers and inventory). Maintains form, fit, function, transparent to aircrew &amp; maintainers, utilizes new Amplifiers (Better Thermal Performance) and replace wires with circuit cards. This is an identified solution using mature technology. O Level installation. This upgrade will increase C-2A readiness and sortie completion rate by 7%, increasing Carrier Onboard Delivery (COD) support of deployed (Carrier) CV Battle Groups engaged in Operation Iraqi Freedom/Operation Enduring Freedom (OIF/OEF) operations. Will decrease direct maintenance man hours and depot repair funds by increasing reliability -allows those resources to be reprogrammed to higher priority tasking.</p>																																																																																																																																																																																																																																																																																																																																																																																				
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Asterisk (*) indicates amount value less than \$51K																																																																																																																																																																																																																																																																																																																																																																																				

Exhibit P-40, BUDGET ITEM JUSTIFICATION							DATE: February 2010																														
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/APN-5 Aircraft Modifications							P-1 ITEM NOMENCLATURE 056000, C-130 Series																														
Program Element for Code B Items:							Other Related Program Elements																														
	Prior Years	ID Code	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total																								
QTY		A																																			
COST (In Millions)	196.3	A	9.6	74.7	17.8		17.8	26.2	22.1	20.1	23.0	300.8	690.5																								
<p>DESCRIPTION:</p> <p>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 88 aircraft in the Navy and Marine Corps inventory (40 active and 48 reserve). The expected Service Life is as follows:</p> <table border="1"> <thead> <tr> <th>T/M/S</th> <th>Service Date</th> <th>Service Life</th> <th>Expected Life</th> </tr> </thead> <tbody> <tr> <td>C-130T</td> <td>10/91 - 11/95</td> <td>450 mos.</td> <td>2028-2032</td> </tr> <tr> <td>KC-130F</td> <td>03/60 - 11/62</td> <td>600 Mos.</td> <td>2010-2012</td> </tr> <tr> <td>KC-130R</td> <td>09/75 - 06/78</td> <td>480 mos.</td> <td>2015-2018</td> </tr> <tr> <td>KC-130T</td> <td>04/84 - 02/96</td> <td>450 mos.</td> <td>2021-2033</td> </tr> <tr> <td>KC-130J</td> <td>09/00 - 10/13</td> <td>450 mos.</td> <td>2037-2048</td> </tr> </tbody> </table>														T/M/S	Service Date	Service Life	Expected Life	C-130T	10/91 - 11/95	450 mos.	2028-2032	KC-130F	03/60 - 11/62	600 Mos.	2010-2012	KC-130R	09/75 - 06/78	480 mos.	2015-2018	KC-130T	04/84 - 02/96	450 mos.	2021-2033	KC-130J	09/00 - 10/13	450 mos.	2037-2048
T/M/S	Service Date	Service Life	Expected Life																																		
C-130T	10/91 - 11/95	450 mos.	2028-2032																																		
KC-130F	03/60 - 11/62	600 Mos.	2010-2012																																		
KC-130R	09/75 - 06/78	480 mos.	2015-2018																																		
KC-130T	04/84 - 02/96	450 mos.	2021-2033																																		
KC-130J	09/00 - 10/13	450 mos.	2037-2048																																		
(TOA, \$ in Millions)																																					
OSIP No.	Description	Prior Years	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total																								
010-06	C-130J CNS/ATM	24.6	7.2	21.2	17.8		17.8	8.6	0.4	0.4	0.4	198.0	278.7																								
022-07	C/KC-130T/J ISR/Weapor	29.0	2.0	52.3									83.3																								
015-08	Navigation Enhancement	10.2	0.4	1.1									11.8																								
008-12	Avionics/Obsolescence Upgrades							17.6	21.7	19.7	22.6	102.8	184.4																								
XXX-XX	Inactive OSIPs	132.4											132.4																								
<b>Total</b>		<b>196.3</b>	<b>9.6</b>	<b>74.7</b>	<b>17.8</b>		<b>17.8</b>	<b>26.2</b>	<b>22.1</b>	<b>20.1</b>	<b>23.0</b>	<b>300.8</b>	<b>690.5</b>																								
<p>Note: Totals may not add due to rounding.</p>																																					
RESERVE FUNDING INCLUDED IN TOTAL			0.4	1.1				17.6	21.7	19.7	22.6																										

Exhibit P-3a Individual Modification

MODIFICATION TITLE: C-130J CNS/ATM (OSIP 010-06)

MODELS OF SYSTEMS AFFECTED: KC-130J, KC-130T, C-130T 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 enhanced Mode-S and Required Navigation Performance/Area Navigation (RNP/RNAV) capabilities in the European Flight Information Region (FIR) started in FY06, followed by the requirement of enhanced Mode-S, which is the Automatic Dependent Surveillance-Broadcast (ADS-B) comm-link component of Mode-S, and will be required in FY07. The USMC has determined that re-joining with the C-130J Co-Operative Software and Systems Upgrade Requirements Management (COSSURM) Block Upgrade Community to be the most expedient and cost-effective means to meet CNS/ATM Mandates as well as incorporate other mission critical software changes through spiral upgrade initiatives or "Blocks". This OSIP will upgrade the KC-130J to enhanced Mode-S and RNP/RNAV through two separate initiatives. The first is Block 6.5 which includes enhanced Mode S, which began in FY06. The second is Block 7.0 which includes the RNP/RNAV solution began in FY09. 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. Future Blocks (8.1 and 9.0) are being developed which will include additional CNS/ATM requirements as mandated by the ICAO as well as address obsolescence issues and provide necessary performance enhancements to ensure future mission readiness of the KC-130J fleet.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Lockheed Martin was tasked to deliver, by November 2005, an ECP to incorporate Mode S & 8.33 KHZ into Military Baseline 5.4 Software already developed for the USAF on C-130J aircraft. The new software version was planned to be become available in FY07 as Block 5.5 but was superseded by Block 6.5 which became available in FY06. Through incorporation of Block 6.5 the USMC KC-130J aircraft will be postured to re-enter the COSSURM Community in a common configuration. This allows the USMC to step into Block 7.0 with the USAF and COSSURM which includes RNP/RNAV and the civil component of Receiver Autonomous Integrity Monitoring (RAIM). Block 8.0 will incorporate Military Embedded GPS Inertial (EGI) with Selective Availability Anti Spoofing Module (SAASM) and the military component of Receiver Autonomous Integrity Monitoring (RAIM).

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY2009		FY2010		FY2011		FY2012		FY2013		FY2014		FY2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
Block 7.0 Kits (44)							8	6.4	6	4.8							30	24.0	44	35.2	
Block 8.1 Kits (54)																	54	64.8	54	64.8	
Block 9.0 Kits (79)																	79	31.6	79	31.6	
Installation Kits N/R																					
Installation Equipment																					
Mode (S) System Block 6.5		13.0		1.3																	14.3
Mode (S) C/KC-130T	48	3.7																		48	3.7
Installation Equipment N/R		1.7		*																	1.7
USMC Nat'l Integ Block 7.0				5.3																	5.3
USMC Nat'l Integ Block 8.1							6.0														6.0
USMC Nat'l Integ Block 9.0																			16.0		16.0
NRE Contractor						19.3															19.3
Engineering Change Orders																					
Data		0.1				*	0.1		*										0.9		1.2
Training Equipment							2.7												10.0		12.7
Support Equipment				0.1		0.5															0.6
ILS		0.1		0.2		0.1		0.1		0.2		0.4		0.4		0.4			0.9		2.8
Other Support		6.1		0.4		1.3		0.9		2.4									15.0		26.0
Interim Contractor Support																					
Installation Cost							8	1.6	6	1.2							163	34.8	177	37.6	
<b>Total Procurement</b>		<b>24.6</b>		<b>7.2</b>		<b>21.2</b>		<b>17.8</b>		<b>8.6</b>		<b>0.4</b>		<b>0.4</b>		<b>0.4</b>		<b>198.0</b>		<b>278.7</b>	

- Notes:
1. Totals may not add due to rounding.
  2. Asterisk indicates amount less than \$51K.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: KC-130J, KC-130T, C-130T MODIFICATION TITLE: C-130J CNS/ATM (OSIP 010-06)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Drive-in Modification

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 2 Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: Nov-10

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: Jan-11

(\$ in Millions)

Cost:	Prior Years		FY2009		FY 2010		FY 2011		FY 2012		FY2013		FY2014		FY2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY ( ) kits																					
FY 2009 ( ) kits																					
FY 2010 ( ) kits																					
FY 2011 (8) kits							8	1.6												8	1.6
FY 2012 (6) kits									6	1.2										6	1.2
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete (163) kits																	163	34.8	163	34.8	
<b>TOTAL</b>							<b>8</b>	<b>1.6</b>	<b>6</b>	<b>1.2</b>							<b>163</b>	<b>34.8</b>	<b>177</b>	<b>37.6</b>	

Installation Schedule

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In									4	4			3	3						
Out									4	4			3	3						

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In									163	177
Out									163	177

Exhibit P-3a

Individual Modification

MODIFICATION TITLE: C/KC-130 ISR / WEAPONS MISSION KIT (022-07)

MODELS OF SYSTEMS AFFECTED: C/KC-130T/J TYPE MODIFICATION: PERFORMANCE ENHANCEMENT

DESCRIPTION/JUSTIFICATION: The objective of this effort is to integrate an ISR (Intelligence, Surveillance & Reconnaissance) Weapon System Kit into the KC-130J aircraft which provides an armed capability to provide intra-theatre suppressive fire support for ground troops as well as intelligence and reconnaissance capability for theatre commanders. The new KC-130J is a force multiplier. The J tanker is capable of refueling both fixed wing and rotary wing aircraft, as well as conducting rapid ground refueling. KC-130Js have been continuously deployed in support of world-wide combat operations providing multi-mission, tactical aerial refueling, and fixed-wing assault support. This added capability will provide the MAGTF commander increased capability for real time intelligence gathering and an armed capability for targets of opportunity and suppressive fire-support. The ISR/Weapon System Kit will consist of a target sight sensor, wing mounted air-to-ground missiles, air-to-ground precision guided munitions delivery via the aft cargo door, and rapid fire 30mm cannon. The system will be configured as a Roll-On/Roll-Off capability to allow for rapid deployment. The program will leverage off of current technology/fielded systems to provide rapid integration of this new capability. Future capabilities will include door modifications to allow the 30mm cannon to be able to fire with the door in the closed position, capability to launch precision guided munitions from within the aircraft while pressurized and moving the Hellfire launch rack from the 330 wing-station to the 430 wing-station.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
A Kit	2	23.0			6	2.8													8	25.8	
Installation Kits N/R																					
Installation Equipment																					
TSS Sensor					6	19.8													6	19.8	
30mm Gun					6	6.0													6	6.0	
FCS					6	1.5													6	1.5	
Hellfire	2	0.2			6	8.8													8	9.0	
BMS					6	6.7													6	6.7	
Installation Equipment N/R		4.4		1.2																	5.6
Engineering Change Orders																					
Data						0.9															0.9
Training Equipment																					
Support Equipment																					
ILS		0.1		0.1		0.4															0.5
Other Support		1.3		0.7		0.6															2.6
Interim Contractor Support																					
Installation Cost					6	4.8														6	4.8
<b>Total Procurement</b>		<b>29.0</b>		<b>2.0</b>		<b>52.3</b>															<b>83.3</b>

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than \$51K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: C/KC-130T/J MODIFICATION TITLE: C/KC-130T/J ISR/Weapons Mission Kit (022-07)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Field Mod Team

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: Nov-09 FY 2011: \_\_\_\_\_

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: May-10 FY 2011: \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY ( ) kits																					
FY 2009 ( ) kits																					
FY 2010 (6) kits					6	4.8														6	4.8
FY 2011 ( ) kits																					
FY 2012 ( ) kits																					
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete ( ) kits																					
TOTAL					6	4.8														6	4.8

Installation Schedule

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
	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 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										6
Out										6

Exhibit P-40, BUDGET ITEM JUSTIFICATION							DATE: <b>February 2010</b>						
APPROPRIATION/BUDGET ACTIVITY <b>Aircraft Procurement, Navy/APN-5 Aircraft Modifications</b>							P-1 ITEM NOMENCLATURE <b>056100, FLEET ELECTRONIC WARFARE SUPPORT GROUP (FEWSG)</b>						
Program Element for Code B Items:							Other Related Program Elements						
	Prior Years	ID Code	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total
QTY		A											
COST (In Millions)	68.6	A	0.7	9.5	21.9		21.9	2.9	0.7	0.7	0.7	2.4	108.0
<p>DESCRIPTION:</p> <p>This line item funds modifications to avionics equipment used for Fleet Operational Forces and Adversary Air Electronic Warfare (EW) training exercises . The overall goal of the budgeted modification is to accurately simulate the known and postulated electronic warfare characteristics and tactics of various radar and jammer threats for fleet training. OSIP 119-83 FEWSG equipment, AN/ALQ-167, AN/AST-4/6/9(V), AN-DLQ-3, AN/ULQ-21/24, &amp; ALE-43 had been installed and/or carried aboard the EA-6B, F-4, F-14, EP-3J, EC-24A and KC-135 aircraft, prior to deactivation. Current equipment, AN/ALQ-167 pod variants and their internal avionics, AN/ULQ-21/24, as well as AN/AST-6 are installed and/or carried aboard the F/A-18, Lear Jet, Kfir (F-21), Hawker/Hunter (F-58), Gulfstream (G-1), F-16 and F-5 aircraft. AN/AST-4 was replaced by AN/AST-6. AN/AST-6(V) will be phased out of service and replaced by AN/AST-9 by FY11. ALE-43 pods have been transitioned from fleet training use to tactical use. No new ALE-43 nor AST-6 pods or pod modifications are being funded via this OSIP. FY 10 - 12 funding will procure 34 AN/ALQ-167 Digital Radio Frequency Memory (DRFM) pod variants to address Adversary Air requirements per Naval Strike Air Warfare Center (NSAWC) Urgent Operational Need Statement.</p>													
(TOA, \$ in Millions)													
<u>OSIP No.</u>	<u>Description</u>	<u>Prior Years</u>	<u>FY2009</u>	<u>FY2010</u>	<u>Base FY2011</u>	<u>OCO FY2011</u>	<u>Total FY2011</u>	<u>FY2012</u>	<u>FY2013</u>	<u>FY2014</u>	<u>FY2015</u>	<u>To Complete</u>	<u>Total</u>
119-83	AN/AST-4/6/9(V), AN-DLQ-3, AN/ULQ-21/24, ALE-43 & AN/ALQ-167	68.6	0.7	9.5	21.9		21.9	2.9	0.7	0.7	0.7	2.4	108.0
<b>Total</b>		<b>68.6</b>	<b>0.7</b>	<b>9.5</b>	<b>21.9</b>		<b>21.9</b>	<b>2.9</b>	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>	<b>2.4</b>	<b>108.0</b>
<b>Note: Totals may not add due to rounding.</b>													

Exhibit P-3a Individual Modification

MODIFICATION TITLE: AN/AST-4/6/9(V), AN/ULQ-21/24, ALE-43, AN/ALQ-167 (OSIP 119-83)

MODELS OF SYSTEMS AFFECTED: NOT APPLICABLE TYPE MODIFICATION:

DESCRIPTION/JUSTIFICATION:

The AN/ALQ-167 pods electronically simulate threat airborne radar jamming systems. The AN/ALQ-167 pod components can also be installed internally in aircraft. When these components are utilized in this type of configuration, they are nomenclatured AN/DLQ-3 and AN/ULQ-21/24. AN/AST-4 was replaced by AN/AST-6. The AN/AST-6(V) pod electronically simulates several types of threat anti-ship missile seeker and air-to-air missile systems. Original variants of these podded devices were first introduced into the fleet in 1980 and proved exceptionally useful in readiness exercises and for tactical contingencies. Subsequent variants were developed to meet the technology advances in threat systems. The tactical contingency pods were removed from fleet service in FY2002 and returned to the pod depot for component reuse. This program provides for the procurement and continued support of additional quantities of these pods or conversion of older pod variants and/or contingency pods to newer variants for use by Fleet Area Control and Surveillance Facility (FACSFAC) in support of operational fleet training and for Top Gun/Adversary Squadrons in support of adversary exercises.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

The inventory objective for the AN/ALQ-167 was 186 pods. Prior to the tactical contingency pod divestiture, inventory was 146. The AN/ALQ-167 pods avionics are being upgraded to provide increased performance/advanced capability utilizing Digital Radio Frequency Memory (DRFM) technology. Internal installations of the DRFM avionics are planned for Adversary Squadron F-5 aircraft in FY 10 -12. Remaining quantities are for pod carriage capability aboard F-18, F-16, Kfir, Hawker/Hunter and Gulfstream I aircraft. Current pod inventory is 41 with a goal of converting one pod per year to DRFM configuration. There are 20 AN/AST-6(V) production assets. AN/AST-6(V) will be phased out of service and replaced by AN/AST-9 by FY11. ALE-43 pods have been transitioned from fleet training use to tactical use. No new AST-6 or ALE-43 pods or pod modifications are being funded via this OSIP.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
Installation Kits N/R																					
Installation Equipment																					
Install Equipment (B Kits)	1020	52.1	1	0.5	9	8.1	16	19.9	3	0.9	1	0.4	1	0.4	1	0.4	2	1.4	1054	84.0	
Installation Equipment N/R		0.6		*		0.4		0.7		0.3		*		0.1		0.1		0.3		2.6	
Engineering Change Orders		2.9																		2.9	
Data		0.2		*		0.1		*		*		*		*		*		*		0.5	
Training Equipment	3	4.6		*		0.2		*		*		*		*		*		*	3	4.9	
Support Equipment		5.4				0.1		*		*		*		*		*		*		5.5	
ILS		1.0		*		0.2		0.2		0.2		0.1		0.1		0.1		0.3		2.3	
Other Support		1.8		0.1		0.4		1.0		1.4		0.1		0.1		0.1		0.2		5.3	
Interim Contractor Support																					
Installation Cost																					
<b>Total Procurement</b>		<b>68.5</b>		<b>0.7</b>		<b>9.5</b>		<b>21.9</b>		<b>2.9</b>		<b>0.7</b>		<b>0.7</b>		<b>0.7</b>		<b>2.4</b>		<b>108.0</b>	

Notes:

- Totals may not add due to rounding.
- Asterisk indicates amount less than \$51K.
- \$3.922M BTR'd in FY 08 appropriation.
- Total Qty is inclusive of pod systems/variants that were procured, deployed and retired and no longer in inventory. Additionally, the yearly quantity of two has been in many cases, modification of pods vice new production, therefore total quantity shown does not reflect current inventory.
- FY10 - 12 Install Equipment (B Kits) funding addresses an the updated ALQ-167 Pod that provides enhanced threat simulation capabilities. This new pod unit cost has increased significantly. \$3.922M Below Threshold Reprogramming (BTR) received in FY 08 and fy 10 - 12 funding will procure 34 AN/ALQ-167 Digital Radio Frequency Memory (DRFM) pod variants to address Adversary Air requirements per Naval Strike Air Warfare Center (NSAWC) Urgent Operational Need Statement.
- Installation costs will be determined by the Engineering Change Proposal. PMA 207 will be developing the ECP with completion due in FY 10.

Exhibit P-40, BUDGET ITEM JUSTIFICATION							DATE: February 2010						
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/APN-5 Aircraft Modifications							P-1 ITEM NOMENCLATURE 056200 CARGO TRANSPORT A C SERIES						
Program Element for Code B Items:							Other Related Program Elements						
	Prior Years	ID Code	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total
QTY		A											
COST (In Millions)	151.3	A	16.2	19.4	16.1		16.1	16.7	16.6	17.0	17.6	69.2	340.1
<p>DESCRIPTION:</p> <p>This line item funds modifications to the following cargo and transport aircraft: C-9B, C-40A, C-20A/D/G, C-37A/B, UC-35C/D, RC-12F/M, UC-12B/F/M/W, NC-12B and C/EC/RC-26D.</p> <p>The C-9 Skytrain II, C-40A Clipper, C-20A/D Gulfstream III, C-20G Gulfstream IV, C-37A Gulfstream V, C-37 B Gulfstream 550, UC-35C Cessna Ultra, UC-35D Cessna Encore are commercial twin jet transport aircraft that provide time-critical medium lift logistic support for the fleet combatant commanders. C-9 is capable of carrying up to 32,000 pounds of cargo and personnel for over 3,300 nautical miles at a maximum speed of 430+ knots. The C-40 can accommodate 121 passengers, or 8 pallets of cargo, or a combination configuration of 3 pallets and 70 passengers with a range of 3,400 nautical miles. C-20D/G is capable of high-speed transport of 13 passengers or cargo over a range of 4,100 nautical miles at 437 knots. C-20A/D and C-37 provide worldwide executive transport to SECNAV, CNO, CMC, and Fleet Commanders. C-35 provides transport for high priority passenger/cargo missions with time, place or mission sensitive requirements. C-35 can accommodate six passengers or 1,200 pounds of cargo with a range of 1,300 nautical miles at 234 knots. The C-12 King Air and C-26 Metro variants are commercial twin turbo-prop aircraft that provide shorter-range light lift passenger/cargo transport and range control missions. C-12 is capable of carrying six passengers or maximum cargo capacity of 2,850 pounds, 1,075 nautical miles at 225 knots. C-26 is capable of carrying 19 passengers 1,300 nautical miles at 234 knots.</p>													
(TOA, \$ in Millions)													
OSIP No.	Description	Prior Years	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total
071-86	FAA CONFIGURATION UPDATES	20.8	*	*	*	*	*	*	*	*	*	*	21.0
012-04	CNS/ATM	81.0	16.2	16.6	16.1		16.1	16.7	16.6	17.0	17.6	69.2	267.0
010-10	SFAR 88			2.7									2.7
	Inactive OSIP's	49.4											49.4
<b>Total</b>		<b>151.3</b>	<b>16.2</b>	<b>19.4</b>	<b>16.1</b>		<b>16.1</b>	<b>16.7</b>	<b>16.6</b>	<b>17.0</b>	<b>17.6</b>	<b>69.2</b>	<b>340.1</b>
<p>Note: Totals may not add due to rounding. Asterisk indicates amount less than \$51K.</p>													

Exhibit P-3a		Individual Modification	
MODIFICATION TITLE:	<u>CNS/ATM (OSIP 012-04)</u>		
MODELS OF SYSTEMS AFFECTED:	<u>CARGO TRANSPORT A C SERIES</u>	TYPE MODIFICATION:	<u>SAFETY/RELIABILITY</u>
DESCRIPTION/JUSTIFICATION:			
<p>World-wide airspace congestion and communication bandwidth saturation has led the International Civil Aviation Organization (ICAO) to restructure the world-wide airspace structure to improve safety through a series of equipment and performance mandates implemented by regional authorities. The Type/Models/Series cited below will be required to comply with Communications, Navigation and Surveillance - Air Traffic Management (CNS-ATM) mandates to retain the Navy's capability to operate these aircraft worldwide. Failure to comply with these time-phased mandates will result in being denied access to high-volume airspace (routing and altitudes) and airfields, and result in circuitous routing and sub optimal altitudes. Required modifications to meet these CNS-ATM mandates are being implemented on post production aircraft as capabilities listed in the third paragraph.</p> <p>To minimize the impact of successive modifications and maximize aircraft availability, a block upgrade approach has been taken. C-20D, C-12 and C-26 expenditures in FY09 and prior years comprise part of Block 1 as noted below by an *. Block upgrades have been prioritized and phased to meet regional mandates' just in time' to ensure that commercial CNS-ATM solutions are available off the shelf to minimize non-reoccurring engineering associated with FAA supplemental type certification. In order to incorporate CNS-ATM mandates several older aircraft (C-20D, C-35C, all C-26 and C-12) required the installation of a digital flight management and communication system.</p> <p>CNS-ATM capabilities associated with each Block Upgrade are listed below:  C-9B: Block 1 EHS + FMS upgrade; Correct Q Switching Block 2 – RNP upgrade and GLS. No Block 3  C-40A: Block 1 – EHS, ACARS, CPDLC and GLS; Block 2 Trajectory based ops+ KIV + L5 GPS Installs + Flight bags; Block 3 - Performance Based Services; Weather Integration  C-37A: Block 1 – EHS upgrade; Block 2– ASC 183, 186, 187, 188; Trajectory based ops+ KIV + L5 GPS Installs; Block 3– Performance Based Services ; Weather Integration  C-37B – Cert Delta + RAAS Block 2 – ASC 83, 84, 908 RAAS; Trajectory based ops+ KIV + L5 GPS Installs; Block 3– Performance Based Services ; Weather Integration  C-35C: Block 1 – 2nd Flight Management System, Mode S upgrade, and ELT; Install ESIS + new instrument panels+ WAAS; Block 2 Install FMS upgrade &amp; RNP; Trajectory based ops+ KIV + L5 GPS Installs; Block 3– Performance Based Services ;Weather Integration  C-35D Block 1 – 2nd Flight Management System and Mode S upgrade; Block 2 Install FMS upgrade, WAAS &amp; RNP; Trajectory based ops+ KIV + L5 GPS Installs; Block 3 – Performance Based Services ; Weather Integration  C-26 EC/RC/UC-26D: Block 1- TAWS* and TCAS-II*: RNP-1, Flight Management System, and Pro-Line 21 Upgrade; Block 2 Install FMS upgrade, WAAS &amp; RNP; Trajectory based ops+ KIV + L5 GPS Installs; Block 3– Performance Based Services ; Weather Integration  C-20A: Block 1 – Mode S, ELT, TAWS upgrade, and CPDLC, No Block 2 or 3.  C-20D – Block 1 Avionics Upgrade* HF Radio Upgrade*, Mode S, ELT, TAWS upgrade; Block 2 – FMS 6.1 upgrade, WAAS &amp; RNP; Trajectory based ops+ KIV + L5 GPS Installs; Block 3- Performance Based Services; Weather Integration  C-20G –Block 1 Mode S and TAWS upgrade; Block 2– ASC 476, 477, 478 &amp; 479; Trajectory based ops+ KIV + L5 GPS Installs; Block 3 - Performance Based Services; Weather Integration  C-12B: Block 1 – P-ILS*, ELT, 8.33 KHz VHF Channel Spacing*: No Block 2 or 3.  C-12F Block 1 – Pro-Line 21 Upgrade, SATCOM, RVSM, ELT and Mode S upgrade; Block 2 –Install FMS upgrade, WAAS &amp; RNP; KIV + VDL2 CMU installs; Block 3 Performance Based Services + Flight bags + Trajectory based ops + L5 GPS Installs + FANS 1/A w/ CPDLC + ADS-C); Weather Integration  C-12M Block 1 – Pro-Line 21 Upgrade, 8.33 KHz VHF Channel Spacing*, Block 2– Install FMS upgrade, WAAS &amp; RNP; KIV + VDL2 CMU installs; Block 3 Performance Based Services + Flight bags + Trajectory based ops+ L5 GPS Installs+ FANS 1/A w/ CPDLC+ ADS-C); Weather Integration  UC-12W Block 2– Install GLS &amp; WAAS; Trajectory based ops+ KIV + L5 GPS Installs; Block 3 – Performance Based Services ; Weather Integration</p>			
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:			

Exhibit P-3a (con't)

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
8.33 KHZ	16	0.7																		16	0.7
AVIONICS UPGRADE C-20D	1	2.4	1	*																2	2.4
BLOCK 1	31	7.2	20	3.3	1	0.1														52	10.6
BLOCK 2	2	0.5			4	0.6	35	2.3	36	2.2	30	1.5	13	0.7	16	0.9				136	8.7
BLOCK 3													5	0.5	9	0.9	55	6.6		69	7.9
DATA LINK	7	0.6																		7	0.6
HF RADIO UPGRADE C-20A	2	0.7																		2	0.7
P-ILS	42	0.5																		42	0.5
Installation Kits N/R		24.3		0.9		2.8		1.1		0.2		0.9		2.2		0.2		9.4			41.9
Installation Equipment																					
AVIONICS UPGRADE C-20D	1	0.1	1	*																2	0.1
BLOCK 1	46	20.6	15	7.1	6	4.3														67	32.1
BLOCK 2	12	1.9			4	1.0	35	7.5	36	8.8	30	7.5	13	5.1	16	5.8				146	37.6
BLOCK 3													5	2.4	9	4.5	55	27.7		69	34.6
HF RADIO UPGRADE C-20A	1	0.5																		1	0.5
Installation Equipment N/R		1.3		0.4		0.5		0.5		0.1		0.3		0.6		0.4		1.7			5.8
Engineering Change Orders		0.2																			0.2
Data		2.9		0.5		0.8		0.4		0.3		0.4		0.5		0.4		1.9			8.0
Training Equipment		0.8		0.2		0.2		0.2		0.2		0.3		0.8		0.2		2.8			5.7
Support Equipment		0.1		0.2		0.1						0.2		0.4		0.1		0.1			1.1
ILS		1.2		0.3		0.6		0.2		0.1		0.4		0.8		0.1		2.2			5.9
Other Support		2.9		0.5		0.5		0.3		0.2		0.4		0.3		0.2		1.3			6.6
Interim Contractor Support																					
Installation Cost	81	12.0	23	2.5	19	5.2	35	3.6	36	4.6	30	4.7	18	2.6	25	4.1	55	15.6		322	54.8
<b>Total Procurement</b>		<b>81.0</b>		<b>16.2</b>		<b>16.6</b>		<b>16.1</b>		<b>16.7</b>		<b>16.6</b>		<b>17.0</b>		<b>17.6</b>		<b>69.2</b>			<b>267.0</b>

Notes:

1. Totals may not add due to rounding.
2. Asterisk indicates amount less than \$51K.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: C-40A/C-9 MODIFICATION TITLE: CNS.ATM (OSIP 012-04)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: DEPOT CONTRACTOR

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 1 Months

CONTRACT DATES: FY 2009: N/A FY 2010: N/A FY 2011: Dec-10

DELIVERY DATE: FY 2009: N/A FY 2010: N/A FY 2011: Jan-11

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (12) kits *	*		8	0.4	4	1.0														12	1.4
FY 2009 ( ) kits																					
FY 2010 ( ) kits																					
FY 2011 (8) kits							8	0.4												8	0.4
FY 2012 (9) kits									9	0.4										9	0.4
FY 2013 ( ) kits																					
FY 2014 (2) kits													2	0.3						2	0.3
FY 2015 (7) kits															7	1.1				7	1.1
To Complete (9) kits																	9	1.4		9	1.4
<b>TOTAL</b>			<b>8</b>	<b>0.4</b>	<b>4</b>	<b>1.0</b>	<b>8</b>	<b>0.4</b>	<b>9</b>	<b>0.4</b>			<b>2</b>	<b>0.3</b>	<b>7</b>	<b>1.1</b>	<b>9</b>	<b>1.4</b>	<b>47</b>	<b>4.8</b>	

NOTE: \* PRIOR YEAR (FY2006) 8 KITS WERE INSTALLED AT THE ORGANIZATIONAL LEVEL. NO INSTALLATION COST TO BE INCURRED.

Installation Schedule

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In		1	6	1		4				2	4	2		3	3	3				
Out		1	6	1		4				2	4	2		3	3	3				

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In		1	1			2	3	2	9	47
Out		1	1			2	3	2	9	47

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: C-37 MODIFICATION TITLE: CNS.ATM (OSIP 012-04)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: DEPOT CONTRACTOR

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 1 Months

CONTRACT DATES: FY 2009: N/A FY 2010: N/A FY 2011: Dec-10

DELIVERY DATE: FY 2009: N/A FY 2010: N/A FY 2011: Jan-11

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (6) kits	6	0.6																		6	0.6
FY 2009 ( ) kits																					
FY 2010 ( ) kits																					
FY 2011 (3) kits							3	0.8												3	0.8
FY 2012 (3) kits									3	0.8										3	0.8
FY 2013 (1) kits											1	0.3								1	0.3
FY 2014 (2) kits													2	0.3						2	0.3
FY 2015 (2) kits															2	0.3				2	0.3
To Complete (4) kits																	4	1.2		4	1.2
<b>TOTAL</b>	<b>6</b>	<b>0.6</b>					<b>3</b>	<b>0.8</b>	<b>3</b>	<b>0.8</b>	<b>1</b>	<b>0.3</b>	<b>2</b>	<b>0.3</b>	<b>2</b>	<b>0.3</b>	<b>4</b>	<b>1.2</b>		<b>21</b>	<b>4.2</b>

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	6									1	1	1		1	1	1			1		
Out	6									1	1	1		1	1	1			1		

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In		1	1			1	1		4	21
Out		1	1			1	1		4	21

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: UC-35 MODIFICATION TITLE: CNS.ATM (OSIP 012-04)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: DEPOT CONTRACTOR

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 1 Months

CONTRACT DATES: FY 2009: Dec-08 FY 2010: Dec-09 FY 2011: Dec-10

DELIVERY DATE: FY 2009: Jan-09 FY 2010: Jan-10 FY 2011: Jan-11

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (4) kits	4	1.9																		4	1.9
FY 2009 (1) kits			1	0.4																1	0.4
FY 2010 (1) kits					1	0.5														1	0.5
FY 2011 (5) kits							5	0.3												5	0.3
FY 2012 (2) kits									2	0.8										2	0.8
FY 2013 (2) kits											2	0.2								2	0.2
FY 2014 (4) kits													4	0.5						4	0.5
FY 2015 (6) kits															6	0.7				6	0.7
To Complete (12) kits																	12	6.6		12	6.6
<b>TOTAL</b>	<b>4</b>	<b>1.9</b>	<b>1</b>	<b>0.4</b>	<b>1</b>	<b>0.5</b>	<b>5</b>	<b>0.3</b>	<b>2</b>	<b>0.8</b>	<b>2</b>	<b>0.2</b>	<b>4</b>	<b>0.5</b>	<b>6</b>	<b>0.7</b>	<b>12</b>	<b>6.6</b>	<b>37</b>	<b>11.8</b>	

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013					
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In	4		1				1				1	2	2			1	1				1	1	
Out	4		1				1				1	2	2			1	1				1	1	

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In		1	2	1		2	2	2	12	37
Out		1	2	1		2	2	2	12	37

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: C-26 MODIFICATION TITLE: CNS.ATM (OSIP 012-04)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: DEPOT CONTRACTOR

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 1 Months

CONTRACT DATES: FY 2009: Dec-08 FY 2010: N/A FY 2011: Dec-10

DELIVERY DATE: FY 2009: Jan-10 FY 2010: N/A FY 2011: Jan-11

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (14) kits	14	3.0																		14	3.0
FY 2009 (3) kits					3	1.5														3	1.5
FY 2010 ( ) kits																					
FY 2011 (2) kits							2	0.3												2	0.3
FY 2012 (5) kits									5	0.8										5	0.8
FY 2013 (1) kits											1	0.2								1	0.2
FY 2014 (3) kits													3	0.6						3	0.6
FY 2015 (3) kits															3	0.6				3	0.6
To Complete (7) kits																	7	1.3		7	1.3
<b>TOTAL</b>	<b>14</b>	<b>3.0</b>			<b>3</b>	<b>1.5</b>	<b>2</b>	<b>0.3</b>	<b>5</b>	<b>0.8</b>	<b>1</b>	<b>0.2</b>	<b>3</b>	<b>0.6</b>	<b>3</b>	<b>0.6</b>	<b>7</b>	<b>1.3</b>		<b>38</b>	<b>8.2</b>

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	14					1	1	1		1	1			2	2	1			1		
Out	14					1	1	1		1	1			2	2	1			1		

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In		1	1	1		1	1	1	7	38
Out		1	1	1		1	1	1	7	38

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: C-20 MODIFICATION TITLE: CNS.ATM (OSIP 012-04)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: DEPOT CONTRACTOR

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 1 Months

CONTRACT DATES: FY 2009: Dec-08 FY 2010: Dec-09 FY 2011: Dec-10

DELIVERY DATE: FY 2009: Jan-09 FY 2010: Jan-10 FY 2011: Jan-11

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (6) kits	4	1.3	2	0.1																6	1.4
FY 2009 (4) kits			4	0.1																4	0.1
FY 2010 (4) kits					4	0.6														4	0.6
FY 2011 (5) kits							5	0.8												5	0.8
FY 2012 (3) kits									3	0.6										3	0.6
FY 2013 (4) kits											4	0.8								4	0.8
FY 2014 ( ) kits																					
FY 2015 (1) kits															1	0.2				1	0.2
To Complete (6) kits																	6	1.2		6	1.2
<b>TOTAL</b>	<b>4</b>	<b>1.3</b>	<b>6</b>	<b>0.2</b>	<b>4</b>	<b>0.6</b>	<b>5</b>	<b>0.8</b>	<b>3</b>	<b>0.6</b>	<b>4</b>	<b>0.8</b>			<b>1</b>	<b>0.2</b>	<b>6</b>	<b>1.2</b>	<b>33</b>	<b>5.7</b>	

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013					
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In	4		2	4			2	2			1	2	2			1	1	1			1	2	1
Out	4		2	4			2	2			1	2	2			1	1	1			1	2	1

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In						1			6	33
Out					1				6	33

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: C-12 MODIFICATION TITLE: CNS.ATM (OSIP 012-04)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: DEPOT CONTRACTOR

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 1 Months

CONTRACT DATES: FY 2009: Dec-08 FY 2010: N/A FY 2011: Dec-10

DELIVERY DATE: FY 2009: Jan-09 FY 2010: N/A FY 2011: Jan-11

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY ( 71 ) kits *	69	5.2	2	0.4																71	5.6
FY 2009 (13) kits			6	1.1	7	1.7														13	2.8
FY 2010 ( ) kits																					
FY 2011 (12) kits							12	1.2												12	1.2
FY 2012 (14) kits									14	1.4										14	1.4
FY 2013 (22) kits											22	3.2								22	3.2
FY 2014 (7) kits													7	1.0						7	1.0
FY 2015 (6) kits															6	1.2				6	1.2
To Complete (17) kits																	17	4.0		17	4.0
<b>TOTAL</b>	<b>69</b>	<b>5.2</b>	<b>8</b>	<b>1.5</b>	<b>7</b>	<b>1.7</b>	<b>12</b>	<b>1.2</b>	<b>14</b>	<b>1.4</b>	<b>22</b>	<b>3.2</b>	<b>7</b>	<b>1.0</b>	<b>6</b>	<b>1.2</b>	<b>17</b>	<b>4.0</b>	<b>162</b>	<b>20.2</b>	

\* Qty of 16 8.33khz radios were installed concurrently with the 42 P-ILS systems.

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	69		3	3	2		2	2	3		4	4	4		5	5	4		7	7	8
Out	69		3	3	2		2	2	3		4	4	4		5	5	4		7	7	8

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In		2	2	3		2	2	2	17	162
Out		2	2	3		2	2	2	17	162

Exhibit P-40, BUDGET ITEM JUSTIFICATION							DATE: February 2010						
APPROPRIATION/BUDGET ACTIVITY							P-1 ITEM NOMENCLATURE						
Aircraft Procurement, Navy/APN-5 Aircraft Modifications							056400, E-6 SERIES						
Program Element for Code B Items:							Other Related Program Elements 0101402N						
	Prior Years	ID Code	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total
QTY		A											
COST (In Millions)	172.4	A	88.6	102.3	149.2		149.2	153.8	154.8	181.1	195.8	242.9	1,440.9
<p>DESCRIPTION:</p> <p>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. E-6 Mission Support (OSIP 007-02) will upgrade the aircraft Frequency Reference Auto Paralleling Unit (FRAPU) to allow proper power transfer from/to ground/aircraft power. Safety Deficiencies (OSIP 008-02) addresses emerging safety issues and includes replacement of aircraft Kapton wiring; installation of the Crash Survivable Flight Incident Recorder (CSFIR); replacement of the Fuel Quantity Indicating System (FQIS); replacement of aircraft thermal blankets; a High Power Transmit Set (HPTS) fire port; a Digital Roll Indicator (DRI) and the Enhanced Smoke Detection System (ESDS). Tech Insertion (OSIP 003-04) addresses obsolescence, supportability, new technologies, systems updates and interoperability issues in the area of the existing KG-3X crypto; shredders for classified material destruction; water tanks and carbon brakes to reduce aircraft weight to meet weight margins for planned modifications, AN/ARC-210 UHF/VHF radios for compatibility with DoD and Defense Support Civil Authority (DSCA) standards and the Aircraft Systems Block Modification (ACSBM). Communications (IP/T3) Upgrade (OSIP 012-07) increases communications bandwidth to support battlestaff command and control and first responder operations. Service Life Extension Program (SLEP) (OSIP 003-07) is designed to extend the service life of the E-6B aircraft to 2040+ E-6 Block I (OSIP 008-10) installs an Open System Architecture (OSA) that will allow low cost modifications for emerging requirements, updates the Internal Communications System (ICS); replaces the Mission Computer Set with the Mission Avionics Process System (MAPS); adds operator work stations; replaces the UHF C3 modem and addresses cooling and electrical power system requirements to meet updated equipment demands. Block II (OSIP 013-10) replaces obsolete MILSTAR terminals with Advanced Extremely High Frequency (AEHF) Family of Advanced Beyond-Line-of-Sight Terminals (FAB-T), and installs the Multi-Role Tactical Common Data Link (MR-TCDL) to support USSTRATCOM's migration to a distributed National C2 system. Block Recapture (Block IA) (OSIP 002-12) installs a new Auxiliary Power Unit (APU) to meet mission requirements and replaces the VLF Transmit Terminal and High Power Transmit Set (HPTS) subsystems due to obsolescence.</p>													
(TOA, \$ in Millions)													
OSIP No.	Description	Prior Years	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total
007-02	E-6 MISSION SUPPORT	13.3		2.4									15.7
008-02	SAFETY DEFICIENCIES	32.9	28.4	9.2	6.6		6.6	2.2	2.2	2.6	19.4	37.5	140.9
003-04	TECH INSERTION	44.2	7.2	10.0	13.3		13.3	12.2	15.4	13.3	31.2	68.8	215.6
003-07	SLEP	7.8	11.5	11.1	18.6		18.6	18.2	12.2	3.5	2.4	28.5	113.8
012-07	COM (IP/T3) UPGRADE	74.2	41.6	18.3	19.8		19.8	18.4	18.4	21.6	16.9	9.0	238.2
008-10	E-6 BLOCK I			43.2	73.6		73.6	59.1	51.8	56.3	40.5	12.2	336.7
013-10	E-6 BLOCK II			8.2	17.3		17.3	22.9	28.3	62.2	70.8	83.9	293.5
002-12	BLOCK RECAPTURE							20.9	26.5	21.6	14.5	3.0	86.5
<b>Total</b>		<b>172.4</b>	<b>88.6</b>	<b>102.3</b>	<b>149.2</b>		<b>149.2</b>	<b>153.8</b>	<b>154.8</b>	<b>181.1</b>	<b>195.8</b>	<b>242.9</b>	<b>1,440.9</b>
<p>Note: Totals may not add due to rounding.</p>													

Exhibit P-3a Individual Modification

MODIFICATION TITLE: SAFETY DEFICIENCIES ( OSIP 008-02 )

MODELS OF SYSTEMS AFFECTED: E-6 SERIES TYPE MODIFICATION: Capability

DESCRIPTION / JUSTIFICATION:  
 The Safety program corrects safety deficiencies and addresses emerging safety issues in order to protect personnel and equipment. FAA APA 19-98 requires the replacement of aircraft Kapton wiring and the Fuel Quantity Indicating System (FQIS) to comply with FAA SFAR 88 requirements. Safety installs the Crash Survivable Flight Incident Recorder (CSFIR) and replaces the aircraft acoustic thermal blankets to meet FAA requirements; installs a High Power Transmit Set (HPTS) fire port for rapid access to the HPTS for fire suppression and installs a Digital Roll Indicator (DRI) to reduce the risk of aircraft damage. Additionally the Enhanced Smoke Detection System (ESDS) replaces the smoke detection system due to obsolescence and unsupportability. The safety program leverages available and emerging commercial technology for crew/aircraft safety.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  
 Aircraft Kapton Wire (A/C wheel wells) installation kit buys and installs complete in FY09 (16 A/C). Aircraft Kapton Wiring Phase 1B (A/C wing structure) NRE in FY15 with NRE kit buy in FY15 with installation beyond the FYDP and Installation Kit buys in FY15 and beyond the FYDP with installs beyond the FYDP (16 A/C). FQIS production kit buys complete FY09 with installs in FY10-FY11. CSFIR production kit buys and installs complete FY09. FOC FY09 (16 A/C). Aircraft acoustic thermal blanket NRE in FY09-10, NRE Phase 1 Kit installation complete FY09; four Phase 1 Blanket installation equipment Kits bought in FY09 with installs in FY10 and five Phase 2 Blanket installation equipment kit buys in FY10 with installs in FY11 (10 A/C). HPTS Fire Port installation equipment kit buys and installs complete FY09. DRI NRE and production kit buys complete in FY09 with installs in FY10, FOC in FY10 (16 A/C). ESDS NRE in FY14 with NRE kit buy in FY14 and installation beyond the FYDP and production kit buys in FY15 and beyond the FYDP with installs beyond the FYDP. FOC beyond the FYDP (16 A/C).

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY2011		FY2012		FY2013		FY2014		FY2015		To Complete		Total			
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$		
RDT&E																						
PROCUREMENT																						
Installation Kits																						
A/C BATTERY	16	*																		16	*	
APU	16	0.4																		16	0.4	
ESDS												1	0.5	7	3.3	8	3.7			16	7.5	
KAPTON 1B															10	6.1	6	3.6			16	9.7
CSFIR	1	0.3	15	4.1																	16	4.4
DRI			16	*																	16	*
FQIS			16	0.1																	16	0.1
FUEL BOOST PUMPS	16	0.8																			16	0.8
KAPTON WIRE	8	0.3	8	0.3																	16	0.5
SMOKE DETECTOR	16	0.3																			16	0.3
Installation Kits N/R		17.1		0.1		0.4							0.3		1.5						19.5	
Installation Equipment																						
A/C BATTERY	16	0.7																			16	0.7
ESDS												1	0.2	7	1.6	8	1.8				16	3.7
ARC 210 Filter	16	0.7																			16	0.7
LIFE RAFTS	16	0.3																			16	0.3
HPTS FIRE PORT			16	*																	16	*
SEAT PINS	16	0.1																			16	0.1
BLANKETS PHASE 1			5	0.3																	5	0.3
BLANKETS PHASE 2					5	1.0															5	1.0
CSFIR	1	0.1	15	1.9																	16	2.0
DRI			16	0.2																	16	0.2
INERTIA REELS	16	0.4																			16	0.4
HPTS CAD CUTTERS	16	0.1																			16	0.1
FQIS			16	4.4																	16	4.4
FUEL BOOST PUMPS	16	0.6																			16	0.6
SMOKE DETECTOR	16	0.3																			16	0.3
Installation Equipment N/R		3.1		*																	3.1	
Engineering Change Orders																						
Data		0.1		0.5		0.1			0.5													1.2
Training Equipment	1	0.2	9	2.9	1	4.0	2	0.1							2	0.2					15	7.5
Support Equipment																						
ILS		0.2		*		0.1										0.2						0.5
Other Support		5.0		2.6		2.4		2.4		2.2		2.2		1.6		6.5		8.1				33.0
Interim Contractor Support																						
Installation Cost	58	1.8	45	11.0	33	1.2	15	3.5										34	20.2	185	37.7	
<b>Total Procurement</b>		<b>32.9</b>		<b>28.4</b>		<b>9.2</b>		<b>6.6</b>		<b>2.2</b>		<b>2.2</b>		<b>2.6</b>		<b>19.4</b>		<b>37.5</b>			<b>140.9</b>	

Notes:  
 1. Totals may not add due to rounding  
 2. Asterisk indicates amount less than \$51K  
 3. Blankets and HPTS Fire Port do not require Installation Kits  
 4. Kapton 1B, Kapton Wire do not require Installation Equipment

**Exhibit P-3a**

MODELS OF SYSTEMS AFFECTED: E-6 SERIES MODIFICATION TITLE: SAFETY DEFICIENCIES ( OSIP 008-02 )

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Modification

ADMINISTRATIVE LEADTIME: Various Months PRODUCTION LEADTIME: Various Months

CONTRACT DATES: FY 2009: N/A FY 2010: N/A FY 2011: N/A

DELIVERY DATE: FY 2009: N/A FY 2010: N/A FY 2011: N/A

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (57) kits	57	1.8																		57	1.8
FY 2009 (76) kits			40	9.5	28	0.7	8	0.1												76	10.3
FY 2010 (5) kits							5	3.3												5	3.3
FY 2011 ( ) kits																					
FY 2012 ( ) kits																					
FY 2013 ( ) kits																					
FY 2014 (1) kits																	1	0.7		1	0.7
FY 2015 (17) kits																	17	9.1		17	9.1
To Complete (14) kits																	14	8.6		14	8.6
<b>TOTAL</b>	<b>57</b>	<b>1.8</b>	<b>40</b>	<b>9.5</b>	<b>28</b>	<b>0.7</b>	<b>13</b>	<b>3.4</b>									<b>32</b>	<b>18.4</b>	<b>170</b>	<b>33.8</b>	

Does not include 15 trainers.

No Cost to Install Life Rafts and Seat Pins.

Only 5 aircraft require Blankets in 2 locations each (Phase 1 & 2).

Installation Schedule: Kapton 1B

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In																					
Out																					

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In									16	16
Out									16	16

Installation Schedule: CSFIR

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In	1	4	4	4	3																
Out	1	4	4	4	4	3															

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										16
Out										16

Installation Schedule: FQIS

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		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	2	2	2	2	2								
Out					2	2	2	2	2	2	2	2	2	2							

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										16
Out										16

Installation Schedule: KAPTON Wire

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	8	4	4																		
Out	6	4	4	2																	

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										16
Out										16

Installation Schedule: ESDS

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In																					
Out																					

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										16
Out										16

Installation Schedule: BLANKETS PHASE ONE

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		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												
Out					1	1	1	1	1												

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										5
Out										5

Installation Schedule: BLANKETS PHASE TWO

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In										2	1	1	1								
Out										2	1	1	1								

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										5
Out										5

Installation Schedule: ARC-210 Filter

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	16																			
Out	16																			

FY 2014				FY 2015				To Complete	Total
1	2	3	4	1	2	3	4		
In									16
Out									16

Installation Schedule: HPTS Fire Port

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	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															
Out		4	4	4	4															

FY 2014				FY 2015				To Complete	Total
1	2	3	4	1	2	3	4		
In									16
Out									16

Installation Schedule: DRI

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	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												
Out					3	4	4	4	1											

FY 2014				FY 2015				To Complete	Total
1	2	3	4	1	2	3	4		
In									16
Out									16

Exhibit P-3a

Individual Modification

MODIFICATION TITLE: TECH INSERTION ( OSIP 003-04 )

MODELS OF SYSTEMS AFFECTED: E-6 SERIES TYPE MODIFICATION: Capability

**DESCRIPTION / JUSTIFICATION:**

The E-6 aircraft has 35 individual computers dealing with communications and mission systems. Tech Insertion inserts new technologies into the E-6B platform and addresses supportability, obsolescence, systems updates and interoperability issues. Existing KG-3X crypto must be replaced with DoD standard equipment for compatibility. Shredders must be replaced to meet NSA terminal destruction requirements. Water Tanks will be replaced and existing brakes will be replaced with Carbon Brakes to reduce the aircraft weight to meet weight margins for planned modifications. ARC 210 installs AN/ARC-210 UHF/VHF radios with internal NSA approved modern programmable crypto for compatibility with DoD and Defense Support Civil Authority (DSCA) standards. Aircraft Systems Block Modification (ACSBM) Phase 1 replaces the Mission Avionics Processing System (MAPS) hardware due to obsolescence and unsupportability. ACSBM Phase 2 replaces the MAPS system interface software and hardware due to obsolescence and unsupportability.

**DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:**

KG-3X family crypto NRE and replacement kits will be provided by the Air Force at no cost to the Navy with installs in FY11-FY12. FOC FY12 (16 A/C). Shredder Installation Equipment Kits bought FY09 with installs complete FY09 at no cost to the Navy. Water Tank Installation Kit buys complete in FY09 with installs in FY09 at no cost to the Navy. Carbon Brake Installation Kit buys in FY10 with installs in FY10 at no cost to the Navy. ARC-210 NRE FY11-FY12 with NRE kit buy and installation in FY12 and production kit buys in FY13-FY15 with installations in FY13 to beyond the FYDP. FOC beyond the FYDP (16 A/C). ACSBM Phase 1 NRE in FY12-13 with NRE kit buy in FY14 and installation in FY15 and production kit buys and installs in FY15. FOC FY15 (16 A/C). ACSBM Phase 2 NRE in FY15 and beyond the FYDP with NRE kit buy and installation and production kit buys and installs beyond the FYDP. FOC beyond the FYDP (16 A/C).

**FINANCIAL PLAN: (TOA, \$ in Millions)**

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
85HP MOTOR	16	0.4																		16	0.4
ARC 210 RADIO									1	0.2	6	1.1	6	1.2	3	0.6				16	3.1
SDSU	16	0.2																		16	0.2
MCS SPIRAL 1 (UPS)	16	0.2																		16	0.2
ACSBM PHASE 1													1	0.1	15	1.4				16	1.5
ACSBM PHASE 2																	16	20.0		16	20.0
Water Tanks			16	0.1																16	0.1
Carbon Brakes					16	6.0														16	6.0
STE	15	0.4																		15	0.4
SIL	2	*																		2	*
LAB	2	*							1	0.2										3	0.2
Installation Kits N/R		5.5		1.8				9.8		1.9						15.9		12.6			47.5
Installation Equipment																					
85HP MOTOR	16	0.4																		16	0.4
ARC 210 RADIO									1	0.7	6	4.2	6	4.4	3	2.3				16	11.6
FMCS Single Board	16	1.3																		16	1.3
MCS SPIRAL 1 (UPS)	16	1.2																		16	1.2
MCS SPIRAL 2 (MPS)	16	1.4																		16	1.4
ACSBM PHASE 1													1	0.4	15	3.3				16	3.7
ACSBM PHASE 2																	16	5.0		16	5.0
Shredder	8	0.2	8	0.2																16	0.3
SDSU	16	2.0																		16	2.0
STE	16	0.9																		16	0.9
SIL	3	0.3																		3	0.3
LAB	3	0.1							1	0.7										4	0.8
Installation Equipment N/R		9.7																			9.7
Engineering Change Orders																					
Data		1.0				0.2				0.5		0.2								0.2	2.1
Training Equipment	13	2.3	1	0.8	2	1.2			1	1.5	3	4.2	5	2.8			5	4.3	30	17.1	
Support Equipment	7	1.0				0.3											4	0.3	11	1.6	
ILS		0.8								1.2		0.7		0.1						1.2	4.0
Other Support		11.4		3.6		2.4		2.3		3.7		3.9		3.3		6.1		7.5		44.1	
Interim Contractor Support																					
Installation Cost	96	3.6	2	0.8	2	*	7	1.2	13	1.6	7	1.0	7	1.0	22	1.5	24	17.6	180	28.5	
<b>Total Procurement</b>		<b>44.2</b>		<b>7.2</b>		<b>10.0</b>		<b>13.3</b>		<b>12.2</b>		<b>15.4</b>		<b>13.3</b>		<b>31.2</b>		<b>68.8</b>		<b>215.6</b>	

Notes:

- Totals may not add due to rounding.
- Asterisk indicates amount less than \$51K.
- KG-3X family crypto NRE and replacement kits will be provided by the Air Force at no cost to the Navy with installation of 15 A/C in FY11-FY12. The 16th A/C kit will be installed under the Block I program.
- Shredder does not require an Installation Kit.
- Water Tanks and Carbon Brakes do not require Installation Equipment Kits.
- Shredder, Water Tanks and Carbon Brakes installed at no cost the the Navy.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED:

INSTALLATION INFORMATION: E-6 SERIES MODIFICATION TITLE: TECH INSERTION ( OSIP 003-04 )

METHOD OF IMPLEMENTATION:

ADMINISTRATIVE LEADTIME: Contractor Field Modification

CONTRACT DATES: Various Months PRODUCTION LEADTIME: Various Months

DELIVERY DATE: FY 2009: N/A FY 2010: N/A FY 2011: N/A

in Millions) FY 2009: N/A FY 2010: N/A FY 2011: N/A

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2008 & PY (78) kits	78	3.2																	78	3.2
FY 2009 ( ) kits																				
FY 2010 ( ) kits																				
FY 2011 (7) kits							7	1.2											7	1.2
FY 2012 (9) kits									9	1.3									9	1.3
FY 2013 (6) kits											4	0.5	2	0.3					6	0.8
FY 2014 (7) kits													3	0.4	4	0.5			7	0.9
FY 2015 (18) kits															15	0.9	3	0.4	18	1.3
To Complete (16) kits																	16	12.9	16	12.9
<b>TOTAL</b>	<b>78</b>	<b>3.2</b>					<b>7</b>	<b>1.2</b>	<b>9</b>	<b>1.3</b>	<b>4</b>	<b>0.5</b>	<b>5</b>	<b>0.7</b>	<b>19</b>	<b>1.4</b>	<b>19</b>	<b>13.3</b>	<b>141</b>	<b>21.7</b>

Does not include 7 Lab & SIL kits and 32 trainer kits.  
 PY Kits include 16 MCS Spiral 1, 15 MCS Spiral 2, 16 STE

Installation Schedule: SDSU

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In	16																					
Out	16																					

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										16
Out										16

Installation Schedule: ARC 210 RADIO

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
		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							3

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In	1	1	3		1	1	1		3	16
Out	2	1	3		1	1	1		3	16

Installation Schedule: KG-3X

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In											1	3	3	3	3	2						
Out											1	3	3	3	3	3	2					

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										15
Out										15

Installation Schedule: ACSBM Phase 1

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In																						
Out																						

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In					4	4	4	4	4	16
Out					4	4	4	4	4	16

Installation Schedule: ACSBM Phase 2

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In																						
Out																						

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										16
Out										16

Installation Schedule: FMC Single Board

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In	16																					
Out	16																					

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										16
Out										16

Exhibit P-3a Individual Modification

MODIFICATION TITLE: SLEP (OSIP 003-07 )

MODELS OF SYSTEMS AFFECTED: E-6 SERIES TYPE MODIFICATION: Capability

DESCRIPTION / JUSTIFICATION:

The Service Life Extension Program (SLEP) extends the E-6B service life to 2040+, based on extensive engineering analysis using modern analytic tools (Service Life Assessment Program – SLAP). Current E-6B usage indicates modification must commence in FY10 to prevent the E-6B from being unable to perform its mission due to the unavailability for maintenance of more than two aircraft in 2016. There is a potential safety of flight issue due to unknown rate of deterioration of the E-6B airframe.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

SLEP Phase 1 Installation Kit production buys in FY09-FY12 with installs in FY09-FY13 (16 A/C). SLEP Phase 2 Installation Kit production buys in FY15 to beyond the FYDP with installs beyond the FYDP (16 A/C).

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY2011		FY2012		FY2013		FY2014		FY2015		To Complete		Total			
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$		
RDT&E		10.7																			10.7	
PROCUREMENT																						
Installation Kits																						
SLEP Phase 1 Kits			4	5.6	1	1.4	6	8.0	5	7.5											16	22.5
SLEP Phase 2 Kits															1	0.6	15	10.4			16	11.1
Installation Kits N/R		6.4									1.5	1.5										9.4
Installation Equipment																						
Installation Equipment N/R																						
Engineering Change Orders																						
Data																						
Training Equipment																						
Support Equipment				0.8																0.8		1.6
ILS																						
Other Support		1.4		1.7		1.7		1.8		1.9		2.0		2.0		1.8				8.0		22.3
Interim Contractor Support																						
Installation Cost			1	3.4	3	7.9	4	8.8	4	8.8	4	8.8							16	9.2	32	47.0
<b>Total Procurement</b>		<b>7.8</b>		<b>11.5</b>		<b>11.1</b>		<b>18.6</b>		<b>18.2</b>		<b>12.2</b>		<b>3.5</b>		<b>2.4</b>				<b>28.5</b>		<b>113.8</b>

Notes:  
 1. Totals may not add due to rounding.  
 2. SLEP does not require Installation Equipment Kits.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: E-6 SERIES MODIFICATION TITLE: SLEP (OSIP 003-07 )

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Drive-in Modification

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 5 Months

CONTRACT DATES: FY 2009: N/A FY 2010: N/A FY 2011: N/A

DELIVERY DATE: FY 2009: N/A FY 2010: N/A FY 2011: N/A

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL			
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$		
FY 2008 & PY ( ) kits																						
FY 2009 (4) kits			1	3.4	3	7.9														4	11.3	
FY 2010 (1) kits							1	2.2												1	2.2	
FY 2011 (6) kits							3	6.6	3	6.6										6	13.2	
FY 2012 (5) kits									1	2.2	4	8.8								5	11.0	
FY 2013 ( ) kits																						
FY 2014 ( ) kits																						
FY 2015 (1) kits																			1	2.1	1	2.1
To Complete (15) kits																			15	7.1	15	7.1
<b>TOTAL</b>			<b>1</b>	<b>3.4</b>	<b>3</b>	<b>7.9</b>	<b>4</b>	<b>8.8</b>	<b>4</b>	<b>8.8</b>	<b>4</b>	<b>8.8</b>						<b>16</b>	<b>9.2</b>	<b>32</b>	<b>47.0</b>	

Installation Schedule: SLEP PHASE ONE

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In				1	1	2			1	2	1			2	1		1	2	2		
Out					1	1	2			1	2	1			2	1		1	2	2	

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										16
Out										16

Installation Schedule: SLEP PHASE TWO

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In																					
Out																					

	FY 2014				FY 2015				To Complete	Total	
	1	2	3	4	1	2	3	4			
In										16	16
Out										16	16

Exhibit P-3a Individual Modification

MODIFICATION TITLE: COMMUNICATIONS (IP/T3) UPGRADE ( OSIP 012-07 )

MODELS OF SYSTEMS AFFECTED: E-6 SERIES TYPE MODIFICATION: Capability

DESCRIPTION / JUSTIFICATION:

OSD PDM III directed funding to establish and maintain Internet Protocol (IP) connectivity using various wideband communications links in support of command and control operations onboard the E-6B aircraft. The IP effort installs International Marine/Maritime Satellite (INMARSAT) commercial satellite access for global communications connectivity (Phase 1); removes the Utility Trailing Wire Antenna (UTWA) to provide weight and space margin for aircraft modifications (Phase 3); and provides the Northstar Digital Ground Entry Point (GEP) capability for high speed UHF Line of Sight (LOS) communications (Phase 4).

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Phase 1 INMARSAT NRE complete FY08 with NRE kit buy complete FY07 and installation complete in FY09. Phase 3 UTWA removal NRE and NRE kit buy complete in FY08 with installation complete in FY10. Phase 1 and 3 aircraft production kit buys in FY10-FY15 (15 A/C) with installs in FY11 to beyond the FYDP (15 A/C). FOC beyond the FYDP (16 A/C). Phase 4 Digital GEP contract awarded in FY09 using FY08 funds. NRE and two NRE kits bought in FY09 (using FY08 funds) with installs complete FY09. Production kits bought FY09 with installs in FY10. FOC FY10 (16A/C).

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY2011		FY2012		FY2013		FY2014		FY2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
Phase One Kits	1	0.5			1	0.5	3	1.5	3	1.5	3	1.5	3	1.6	2	1.1			16	8.2	
Phase Three Kits	1	0.6			1	0.6	3	1.8	3	1.9	3	1.9	3	1.9	2	1.3			16	9.9	
Phase Four Kits	2	0.6	14	4.1															16	4.6	
Lab Kits	3	1.4																	3	1.4	
Installation Kits N/R		44.8		9.0																53.8	
Installation Equipment																					
Phase One Kits	1	0.6			1	0.5	3	1.8	3	1.8	3	1.8	3	1.8	2	1.2			16	9.5	
Phase Three Kits	1	0.6			1	0.5	3	1.7	3	1.7	3	1.8	3	1.8	2	1.2			16	9.3	
Phase Four Kits	2	0.3	14	2.1															16	2.4	
Lab Kits	3	1.3																	3	1.3	
Installation Equipment N/R																					
Engineering Change Orders																					
Data		0.6		0.9		0.4		0.9		0.1		0.1									3.1
Training Equipment		1.8		0.4	12	7.1		0.9			2	1.1	2	1.2					16	12.4	
Support Equipment																					
ILS		3.0		0.1																	3.2
Other Support		18.4		10.3		7.8		6.3		2.6		2.3		3.3		2.9		2.7		56.6	
Interim Contractor Support																					
Installation Cost			7	14.7	17	0.9	11	4.7	6	8.7	6	7.9	10	10.1	6	9.3	4	6.3	67	62.7	
<b>Total Procurement</b>		<b>74.2</b>		<b>41.6</b>		<b>18.3</b>		<b>19.8</b>		<b>18.4</b>		<b>18.4</b>		<b>21.6</b>		<b>16.9</b>		<b>9.0</b>		<b>238.2</b>	

Notes:  
1. Totals may not add due to rounding.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: E-6 SERIES MODIFICATION TITLE: COMMUNICATIONS (IP/T3) UPGRADE ( OSIP 012-07 )

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Drive-in Modification

ADMINISTRATIVE LEADTIME: Various Months PRODUCTION LEADTIME: Various Months

CONTRACT DATES: FY 2009: N/A FY 2010: N/A FY 2011: N/A

DELIVERY DATE: FY 2009: N/A FY 2010: N/A FY 2011: N/A

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (4) kits			4	13.6																4	13.6
FY 2009 (14) kits					14	0.7														14	0.7
FY 2010 (2) kits							2	2.9												2	2.9
FY 2011 (6) kits									6	8.7										6	8.7
FY 2012 (6) kits											6	7.9								6	7.9
FY 2013 (6) kits													6	9.1						6	9.1
FY 2014 (6) kits															6	9.3				6	9.3
FY 2015 (4) kits																	4	6.3		4	6.3
To Complete ( ) kits																			4	6.3	
<b>TOTAL</b>			<b>4</b>	<b>13.6</b>	<b>14</b>	<b>0.7</b>	<b>2</b>	<b>2.9</b>	<b>6</b>	<b>8.7</b>	<b>6</b>	<b>7.9</b>	<b>6</b>	<b>9.1</b>	<b>6</b>	<b>9.3</b>	<b>4</b>	<b>6.3</b>	<b>48</b>	<b>58.5</b>	

Does not include 3 labs and 16 trainers.

Installation Schedule: Phase One

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
	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
Out					1						1			1		1	1	1	1	1	1

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In	1	1	1		1	1	1		2	16
Out		1	1	1		1	1	1	2	16

Installation Schedule: Phase Three

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
		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	
Out						1					1				1		1	1	1	1	1	1

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In	1	1	1		1	1	1		2	16
Out	1	1	1	1	1	1	1	1	2	16

Installation Schedule: Phase Four

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In			1		1	4	5	5														
Out			1		1	4	5	5														

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										16
Out										16

Exhibit P-3a Individual Modification

MODIFICATION TITLE: E-6 MISSION DEFICIENCIES IMPROVEMENTS (BLOCK I) (OSIP 008-10)

MODELS OF SYSTEMS AFFECTED: E-6 SERIES TYPE MODIFICATION: Capability

DESCRIPTION / JUSTIFICATION:

The Block I Modification corrects Airborne Command Post (ABNCP) FOT&E deficiencies and replaces equipment that is obsolete or degrades mission performance. The modification installs an Open Systems Architecture (OSA), updates the Internal Communications System (ICS); replaces the Mission Computer Set with the Mission Avionics Processor System (MAPS); adds operator work stations; replaces the UHF C3 modem and addresses cooling and electrical power system requirements to meet updated equipment demands.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

MS-B achieved Mar 2004; DRR complete Aug 2007; DT 1Q FY09-2Q FY10; MS-C 3Q FY10; OPEVAL 3-4Q FY10; Low Rate Initial Production (LRIP) of 1 kit buy in FY10 and 3 kit buys in FY11 with installs in FY11 and FY12. Full Rate Production (FRP) kit buys FY12-FY15 (11 A/C) with installs in FY13 to beyond the FYDP. IOC FY13 (5 A/C). FOC beyond the FYDP (16 A/C).

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total						
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$					
RDT&E		171.0		41.2		44.0															256.2				
PROCUREMENT																									
Installation Kits																									
Block One Kits					1	3.3	3	7.3	3	6.1	3	6.1	3	6.2	2	5.0					15	33.9			
Lab Kit																									
Installation Kits N/R																									
Installation Equipment																									
Block One Kits					1	14.5	3	32.9	3	27.4	3	27.6	3	27.7	2	21.3						15	151.4		
Lab Kit																									
Installation Equipment N/R																									
Engineering Change Orders																									
Data						0.5		0.5		0.4		0.5		0.5		0.5		0.3					3.2		
Training Equipment					6	13.5	2	9.6		1.0													8	24.1	
Support Equipment					1	3.9	1	3.7	1	3.4	1	3.5	1	3.6										5	18.1
ILS						2.1		2.5		1.0															5.5
Other Support						5.4		10.0		8.8		5.0		9.5		5.0		5.8							49.5
Interim Contractor Support																									
Installation Cost							7	7.2	5	11.0	3	9.1	3	9.0	3	8.8	2	6.0							51.0
<b>Total Procurement</b>						<b>43.2</b>		<b>73.6</b>		<b>59.1</b>		<b>51.8</b>		<b>56.3</b>		<b>40.5</b>		<b>12.2</b>							<b>336.7</b>

Notes:

1. Totals may not add due to rounding.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: E-6 SERIES MODIFICATION TITLE: E-6 MISSION DEFICIENCIES IMPROVEMENTS (BLOCK I) (OSIP 008-10)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Drive In Modification

ADMINISTRATIVE LEADTIME: Various Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2009: N/A FY 2010: Apr-10 FY 2011: Nov-10

DELIVERY DATE: + N/A FY 2010: Apr-11 FY 2011: Nov-11

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY ( ) kits																					
FY 2009 ( ) kits																					
FY 2010 (1) kits							1	4.2												1	4.2
FY 2011 (3) kits									3	9.4										3	9.4
FY 2012 (3) kits											3	9.1								3	9.1
FY 2013 (3) kits													3	9.0						3	9.0
FY 2014 (3) kits															3	8.8				3	8.8
FY 2015 (2) kits																	2	6.0		2	6.0
To Complete ( ) kits																					
<b>TOTAL</b>							<b>1</b>	<b>4.2</b>	<b>3</b>	<b>9.4</b>	<b>3</b>	<b>9.1</b>	<b>3</b>	<b>9.0</b>	<b>3</b>	<b>8.8</b>	<b>2</b>	<b>6.0</b>	<b>15</b>	<b>46.4</b>	

Does not include 8 trainers

Installation Schedule: Block 1

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
		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
Out														1	1	1			1		1	1

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In	1		1	1		1	1	1	2	15
Out	1		1	1		1	1	1	3	15

Exhibit P-3a

MODIFICATION TITLE: BLOCK II (OSIP 013-10)

MODELS OF SYSTEMS AFFECTED: E-6 SERIES TYPE MODIFICATION: Capability

**DESCRIPTION / JUSTIFICATION:**

PDM III directed funding to replace obsolete MILSTAR terminals with Advanced Extremely High Frequency (AEHF) Family of Advanced Beyond-Line-of-Sight Terminals (FAB-T), as well as to integrate the systems required to provide a T-3 capability to support USSTRATCOM's migration to a distributed National C2 system. Block II will leverage the Army Multi-Role Tactical Common Data Link (MR-TCDL) program to meet the T-3 capability.

**DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:**

Navy integration of production systems from existing programs. FAB-T (Air Force) achieved KDP-C in 2Q FY09; MR-TCDL (Army) currently in production. Air Force to provide FAB-T systems at no cost to Navy. MR-TCDL contract award FY10; NRE in FY10-FY11 with NRE kit buy in FY11 and installation in FY12. Production kit buys in FY14 to beyond the FYDP (15 A/C), with installs FY15 to beyond the FYDP (15 A/C). FOC beyond the FYDP (16A/C). FAB-T contract award FY12; NRE in FY12-FY13 with NRE kit buy in FY14 and installation in FY15. Production kit buys in FY15 to beyond the FYDP (15 A/C), with installs beyond the FYDP (15 A/C). FOC beyond the FYDP (16A/C).

**FINANCIAL PLAN: (TOA, \$ in Millions)**

	PRIOR YEARS		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
AEHF													1	0.6	10	6.6	5	3.4	16	10.6	
MRTCDL							1	1.3					3	4.2	7	10.1	5	7.5	16	23.0	
Lab Kits					1	1.2					1	0.6							2	1.8	
Installation Kits N/R						1.8		4.5		12.4		16.4									35.2
Installation Equipment																					
MRTDCL							1	3.3					3	10.9	7	26.4	5	19.5	16	60.1	
Lab Kits					1	3.3													1	3.3	
Installation Equipment N/R																					
Engineering Change Orders																					
Data												1.3		1.6							2.9
Training Equipment													6	30.2	2	7.3					37.5
Support Equipment																					
ILS						0.5		1.3		1.1		1.3		4.3		0.1					8.5
Other Support						1.4		4.7		7.1		7.5		10.3		7.8			9.2		48.1
Interim Contractor Support																					
Installation Cost								1	2.2	1	2.2	1	1.2			8	12.5	31	44.3	42	62.5
<b>TOTAL PROCUREMENT</b>						<b>8.2</b>		<b>17.3</b>		<b>22.9</b>		<b>28.3</b>		<b>62.2</b>		<b>70.8</b>		<b>83.9</b>		<b>293.5</b>	

1. Totals may not add due to rounding.

Exhibit P-3a

MODELS OF SYSTEMS E-6 SERIES

MODIFICATION TITLE: BLOCK II (OSIP 013-10)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION Contractor Drive-In Modification

METHOD OF IMPLEMENTATION: Drive In Modification

ADMINISTRATIVE LEADTIME: 2 Months

PRODUCTION LEADTIME: Various Months

CONTRACT DATES: FY 2009: N/A

FY 2010: N/A

FY 2011: Nov-10

DELIVERY DATE: FY 2009: N/A

FY 2010: N/A

FY 2011: Dec-11

Cost:	PRIOR YEARS		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY ( ) kits																					
FY 2009 ( ) kits																					
FY 2010 ( ) kits																					
FY 2011 (1) kits									1	2.2										1	2.2
FY 2012 ( ) kits																					
FY 2013 (0) kits																					
FY 2014 (4) kits															4	5.2				4	5.2
FY 2015 (17) kits																	17	22.9	17	22.9	
TO COMPLETE (10) kits																	10	13.8	10	13.8	
Total									1	2.2					4	5.2	27	36.7	32	44.1	

Does not include 2 Lab and 8 trainer installs

MRTCDL Installation Schedule

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
	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 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In					1	1	1		12	16
Out					1	1	1		12	16

AEHF Installation Schedule

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In																					
Out																					

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In						1			15	16
Out							1		15	16

Exhibit P-40, BUDGET ITEM JUSTIFICATION							DATE: February 2010						
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/APN-5 Aircraft Modifications							P-1 ITEM NOMENCLATURE 0566, EXECUTIVE HELICOPTERS SERIES						
Program Element for Code B Items:							Other Related Program Elements						
	Prior Years	ID Code	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total
QTY		A											
COST (In Millions)	306.8	A	51.7	42.3	43.4		43.4	57.0	49.9	50.1	50.2	191.8	843.2
<p>DESCRIPTION: This line item funds modifications to the (11) VH-3D, (8) VH-60N, (1) TH-3D, and (1) TH-60N. These aircraft are assigned to Marine Helicopter Squadron One to support the President of the United States. The VH-60N Cockpit Upgrade consists of an upgrade to all-glass instrumentation. The Communication Suite Upgrade consists of DAMA SATCOM radio upgrade, Digital FM radio upgrade, HF radio upgrade, the Presidential redundant secure communications upgrade, Data Transfer capability upgrade, and Crypto Modernization Upgrade. The VH-3D Lift Improvement program consists of the operational level installation of 55 composite main rotor blades on all eleven VH-3Ds. The Structural Enhancement Program consists of the efforts to increase the maximum operating weight of the VH-3D, replace critical aircraft structure on the VH-60N, replace the VIP seats on the VH-3D, upgrade the safety of the fuel system on the VH-3D, and a Service Life Extension on the VH-3D and VH-60N. The Obsolescence Management Program will manage impending Executive Helicopter obsolescence issues. A variety of factors will be addressed including communication, navigation, and engine upgrades to remain mission relevant. An H-3 and H-60 will be converted to a TH-3D and TH-60N to reduce usage on the VH-3D and VH-60N. The Correction of Deficiencies Program will address known deficiencies for all Executive Helicopter Series aircraft. The overall goal of the modifications budgeted in FY 2011 is to continue procurement efforts in accordance with the procurement strategy to maintain the VH-3D and VH-60N until the VXX Replacement Helicopter becomes fully operationally capable.</p>													
<b>OSIP No.</b>	<b>Description</b>	<b>Prior Years</b>	<b>FY2009</b>	<b>FY2010</b>	<b>Base FY2011</b>	<b>OCO FY2011</b>	<b>Total FY2011</b>	<b>FY2012</b>	<b>FY2013</b>	<b>FY2014</b>	<b>FY2015</b>	<b>To Complete</b>	<b>Total</b>
009-02	VH-60N Cockpit Upgrade	89.5	22.9	15.1	10.3		10.3	1.2					138.9
014-02	VH Comm Upgrade	44.1	4.1	9.3	15.4		15.4	6.3	5.1	2.6			86.9
	DERF (non add)	10.1											10.1
011-06	VH-3D Lift Improvements	39.0	18.3										57.3
016-08	VH Structural Enhancements	7.0	1.2	14.3	5.4		5.4	30.2	37.1	43.5	43.4	89.0	271.0
023-09	Obsolescence Management Program		5.2	3.7	6.1		6.1	6.4	1.6	1.8	2.1	5.8	32.6
001-14	Correction of Deficiencies									2.2	4.7	97.0	103.9
009-11	VH-3D/VH-60N Trainers Conversion				6.2		6.2	12.9	6.2				25.3
	Inactive OSIPs	127.2											127.2
<b>Total</b>		<b>306.8</b>	<b>51.7</b>	<b>42.3</b>	<b>43.4</b>		<b>43.4</b>	<b>57.0</b>	<b>49.9</b>	<b>50.1</b>	<b>50.2</b>	<b>191.8</b>	<b>843.2</b>
<b>Note: Totals may not add due to rounding.</b>													

Exhibit P-3a

Individual Modification

MODIFICATION TITLE: VH-60N COCKPIT UPGRADE (OSIP 009-02)

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), and 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, navigation, and survivability capabilities while reducing pilot workload. The cockpit upgrade will be an all-glass instrumentation built around pilot, co-pilot, and Communications Systems Operator (CSO) Multi-Function Displays (MFD) and Control Display Units (CDU). A moving map display complete with terrain database will be incorporated, while maintaining the current capabilities of TACAN, VOR, ILS, ADF, TCAS, CSFIR, FM Immunity, Mode S IFF, ALE-47 and ALQ-144. The Survivability capabilities will provide a countermeasure dispenser and an infrared countermeasure system interface. The navigation system should include laser ring gyro Inertial Navigation Systems (INS) with embedded Global Positioning System (GPS)-(EGI) that has integrity monitoring/IFR. A color weather radar will be incorporated. Communication capabilities must be consistent with White House Communications Agency (WHCA) planning and National Security Agency (NSA) requirements. Three UHF/VHF/FM radios (ARC-210s) shall be included. Four FM radios and the HF with ALE currently on the VH-60N must be maintained. A coupled autopilot function shall be incorporated into the cockpit management system. Preplanned Product Improvement (P3I) will include Digital Map, Ground Proximity Warning System (GPWS), Communication, Navigation and Surveillance/ Air Traffic Management (CNS/ATM), and GPS Non-precision approach (RNP/RNAV).

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: This ACAT IV-T program was approved in July 2001. Milestone B was approved November 2003. The program was re-designated as ACAT IV-M in November 2003. Milestone C was approved April 2006. Test bed aircraft modification and first kit procurement began in FY 2006. Installation of 1st production kit began in FY 2008. Development Testing was completed in FY 2009. Full Rate Production (FRP) approved August 2009. Initial Operating Capability is scheduled for FY 2010 with Full Operating Capability scheduled for FY 2012. Preplanned Product Improvement efforts began in FY 09 and will finish in FY 12.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
VH-60N Cockpit Upgrade Kit	4	4.1	2	2.3	2	1.3													8	7.8	
Installation Kits N/R		32.1		*		2.2		2.3													36.6
Installation Equipment																					
Production Equip		5.3		2.8		2.7															10.7
Installation Equipment N/R		21.6				1.1		0.4		*											23.2
Engineering Change Orders				3.9		1.1															4.9
Preplanned Prod Improvement		0.6																			0.6
Data		2.9				*		0.4													3.3
Training Equipment		1.2	1	0.8				0.1												1	2.1
Support Equipment				0.7																	0.7
ILS		0.5																			0.5
Other Support		16.2		2.6		2.2		2.6		1.1											24.8
Interim Contractor Support				0.5																	0.5
Installation Cost	2	4.9	3	9.3	2	4.5	2	4.5												9	23.2
<b>Total Procurement</b>		<b>89.5</b>		<b>22.9</b>		<b>15.1</b>		<b>10.3</b>		<b>1.2</b>											<b>138.9</b>

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than \$51K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: VH-60N MODIFICATION TITLE: VH-60N COCKPIT UPGRADE (OSIP 009-02)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Installation of Cockpit Upgrade during SPAR

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 13 Months

CONTRACT DATES: FY 2009: Jul-09 FY 2010: Dec-09 FY 2011: \_\_\_\_\_

DELIVERY DATE: FY 2009: Aug-10 FY 2010: Jan-11 FY 2011: \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (4) kits	2	4.9	2	8.3																4	13.2
FY 2009 (3) kits			1	1.0	2	4.5														3	5.5
FY 2010 (2) kits							2	4.5												2	4.5
FY 2011 ( ) kits																					
FY 2012 ( ) kits																					
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete ( ) kits																					
<b>TOTAL</b>	<b>2</b>	<b>4.9</b>	<b>*3</b>	<b>9.3</b>	<b>2</b>	<b>4.5</b>	<b>2</b>	<b>4.5</b>												<b>9</b>	<b>23.2</b>

\* Total quantity includes 1 trainer

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
		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									
Out				1	1			1	1			1	1			1	1					

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										8
Out										8

Exhibit P-3a

Individual Modification

MODIFICATION TITLE: VH COMM UPGRADE (OSIP 014-02)

MODELS OF SYSTEMS AFFECTED: VH-60N/VH-3D

TYPE MODIFICATION: SAFETY

DESCRIPTION/JUSTIFICATION: The White House Military Office (WHMO) has 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 Data Transfer Computer/Printer requirement will require the procurement of a compatible TEMPEST certified data transfer computer and printer. WHMO has also directed that VHF FM radios operate in the APCO-25 digital mode. New radios must be procured in order to meet this requirement. JCS Directive MJCS-63-89 states that all users of UHF SATCOM shall have demand assigned multiple access (DAMA) capability. 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 2005. Satisfaction of the DAMA SATCOM requirement will require the incorporation of two DAMA capable radios in each aircraft to satisfy the need for full duplex communication. An install kit will be built to house the radio, amplifier, and aircraft interface module, and then it will be installed in the aircraft as one unit. WHCA has also directed that all WHMO elements have the ability to operate in the High Frequency/Automatic Link Establishment (HF/ALE) mode by 2007. To meet the HF/ALE requirement, software modifications to the OFP must be completed to fully utilize all automatic link establishment (ALE) capabilities of the current HF radio. OFP software will be modified by NAWC-AD to allow new systems to work in the aircraft. The FM (YZ) radio replacement is required in order to have a redundant secure voice capability due to the obsolescence of the YZ radio system employed by White House Communication Agency (WHCA). An upgrade to all radios is required to maintain crypto security requirements. Required upgrades vary from software/firmware mods to the replacement of multiple radios on the VH-3D/VH-60N.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: This program was approved as an Abbreviated Acquisition Program in July 2001. Program was upgraded to ACAT IV-M in March 2003. Digital FM was completed in FY 2005. The HF/ALE modification was completed in FY 2009. FM radio replacement was completed in FY 2009. The crypto modernization effort for both aircraft will begin in FY 2010 and continue through FY 2014. All 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.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
CRYPTO - ARC-231 VH-3D/60N					2	*	12	0.2	5	0.1									19	0.4	
CRYPTO - ARC-210 VH-60N					1	*	3	0.1	2	*	2	*							8	0.2	
CRYPTO - ARC-210 VH-3D					1	*	6	0.2	2	0.1	2	0.1							11	0.4	
CRYPTO - HF CRYPTO VH-3D/60N							2	*	13	0.3	4	0.1							19	0.4	
FM Radio Replacement (O-level)	19	0.2																		19	0.2
SATCOM (O-level)	4	0.5																		4	0.5
VH Digital FM	28	1.0																		28	1.0
VH-3D SATCOM	11	0.6																		11	0.6
VH-60 SATCOM	8	1.3																		8	1.3
Installation Kits N/R		9.4			6.0		6.0		0.4												21.8
Installation Equipment																					
CRYPTO - ARC 231 VH-3D/60N					2	0.2	12	1.2	5	0.5										19	2.0
CRYPTO - ARC 210 VH-60N					1	0.5	3	1.4	2	1.0	2	1.0								8	3.8
CRYPTO - ARC 210 VH-3D					1	0.5	6	3.1	2	1.0	2	1.0								11	5.6
CRYPTO - HF VH-3D/60N							2	0.1	13	0.5	4	0.2								19	0.8
Data Transfer Computer/Printer	8	0.2																		8	0.2
Digital FM	21	0.3																		21	0.3
FM Radio Replacement	19	0.1																		19	0.1
SATCOM	27	3.6																		27	3.6
Installation Equipment N/R		6.3		0.8		0.5		0.5													8.1
Engineering Change Orders																					
Crypto						0.1		0.1													0.2
Data Transfer		0.3																			0.3
Digital FM		0.7																			0.7
FM Radio Replacement																					
SATCOM																					
Data		4.0		0.4		0.3		0.3		0.1		0.2		0.4							5.7
Training Equipment	5	0.7										1.0		0.5						5	2.2
Support Equipment		2.1								0.4		0.3		0.3							3.1
ILS														0.5							0.5
Other Support		8.9		2.0		1.1		0.7		0.5		0.5		0.5							14.3
Interim Contractor Support																					
Installation Cost	17	4.2	2	0.8			4	1.4	4	1.4	2	0.7	1	0.5						30	8.9
<b>Total Procurement</b>		<b>44.1</b>		<b>4.1</b>		<b>9.3</b>		<b>15.4</b>		<b>6.3</b>		<b>5.1</b>		<b>2.6</b>							<b>86.9</b>

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than \$51K
3. All Crypto installed at O level except ARC-210 for the VH-3D

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: VH-60N/VH-3D MODIFICATION TITLE: VH COMM UPGRADE (OSIP 014-02)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Installation of DAMA SATCOM - COMM SUITE Upgrade during SPAR

ADMINISTRATIVE LEADTIME: \_\_\_\_\_ Months PRODUCTION LEADTIME: \_\_\_\_\_ Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2008 & PY (19) kits	17	4.2	2	0.8															19	5.0
FY 2009 ( ) kits																				
FY 2010 ( ) kits																				
FY 2011 ( ) kits																				
FY 2012 ( ) kits																				
FY 2013 ( ) kits																				
FY 2014 ( ) kits																				
FY 2015 ( ) kits																				
To Complete ( ) kits																				
<b>TOTAL</b>	<b>17</b>	<b>4.2</b>	<b>2</b>	<b>0.8</b>															<b>19</b>	<b>5.0</b>

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	17				2																
Out	16	1					1	1													

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										19
Out										19

Installs must follow VH SPAR schedule

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: VH-3D MODIFICATION TITLE: VH COMM UPGRADE (OSIP 014-02)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Installation of ARC-210 (Crypto Upgrade) in the VH-3D - Comm Suite Upgrade during SPAR

ADMINISTRATIVE LEADTIME: 9 Months PRODUCTION LEADTIME: 4 Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: Jun-10 FY 2011: Nov-11

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: Oct-10 FY 2011: Mar-12

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY ( ) kits																					
FY 2009 ( ) kits																					
FY 2010 (1) kits							1	0.4												1	0.4
FY 2011 (6) kits							3	1.1	3	1.1										6	2.1
FY 2012 (2) kits									1	0.4	1	0.4								2	0.7
FY 2013 (2) kits											1	0.4	1	0.5						2	0.8
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete ( ) kits																					
<b>TOTAL</b>							<b>4</b>	<b>1.4</b>	<b>4</b>	<b>1.4</b>	<b>2</b>	<b>0.7</b>	<b>1</b>	<b>0.5</b>					<b>11</b>	<b>4.0</b>	

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In										1	2		1		1	1	2			1	1
Out													1	2	1				1	1	2

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In	1									11
Out	1	1		1						11

Exhibit P-3a

Individual Modification

MODIFICATION TITLE: VH-3D LIFT IMPROVEMENTS (OSIP 011-06)

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, reduce vibrations and reduce structural loads. The 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 did take place in the 1st and 2nd quarter of FY 2008. Procurement and operational install of these blades will take place in FY 2010. The blades are being individually procured vice procured as entire shipsets.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
Blade Kit	20	0.6	35	1.3																55	1.8
Installation Kits N/R																					
Installation Equipment																					
Blade Equip	20	3.2	35	8.1																55	11.2
Installation Equipment N/R		30.1		1.9																	32.0
Engineering Change Orders		0.3																			0.3
Data	20	3.7	35	6.6																55	10.4
Training Equipment		*																			*
Support Equipment																					
ILS		0.1																			0.1
Other Support		1.0		0.5																	1.5
Interim Contractor Support																					
Installation Cost																					
<b>Total Procurement</b>		<b>39.0</b>		<b>18.3</b>																	<b>57.3</b>

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than \$51K
3. Blades will be installed at the O level

Exhibit P-3a

Individual Modification

MODIFICATION TITLE: VH STRUCTURAL ENHANCEMENTS (OSIP 016-08)

MODELS OF SYSTEMS AFFECTED: VH-3D/VH-60N TYPE MODIFICATION: SAFETY

DESCRIPTION/JUSTIFICATION: The VH Structural Enhancement Program consists of the efforts to replace critical aircraft structure on the VH-60N, replace the VIP seats on the VH-3D, upgrade the safety of the fuel system on the VH-3D, and extend the service lives of the VH-3D and VH-60N. VH-60N airframe cracks have been identified and repaired by depot contractor both during scheduled Special Progressive Aircraft Rework (SPAR) and unscheduled/unplanned maintenance at HMX-1. These cracks and the required repairs will significantly extend aircraft out of service time, reducing aircraft availability and impacting HMX-1's ability to support White House Military Office missions.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Installation of the VH-60N top deck kits will be performed in conjunction with planned SPAR periods starting in the 1st quarter of FY 2012. Installation of VH-3D VIP seats will begin in FY 2010 and continue through FY 2013. Installation of the VH-3D fuel system upgrades will begin in FY 2010 and continue through FY 2013. The Service Life Extension for the VH-3D and VH-60N will begin in FY 2011.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
VH-60N Top Deck Kits					2	2.3			2	2.4	2	2.5	1	1.3	1	1.3				8	9.7
VH-3D Seat Kits					7	1.1			2	0.3	2	0.3								11	1.6
VH-3D Fuel Survivability Kits					6	1.4			3	0.6	2	0.5								11	2.5
VH-60N SLEP Kits											2	5.0	2	5.4	2	5.7	2	5.6		8	21.7
VH-3D SLEP Kits											2	9.0	2	9.4	2	9.7	5	29.0		11	57.1
Installation Kits N/R				7.0		0.3		2.3		2.1		3.7		1.2		0.5					17.1
Installation Equipment																					
VH-3D Seats Equip						7	2.5			2	0.7	2	0.7							11	3.8
VH-60N SLEP Equip											2	2.0	2	2.1	2	2.2	2	2.3		8	8.6
VH-3D SLEP Equip											2	2.0	2	2.1	2	2.2	5	8.8		11	15.1
Installation Equipment N/R											3.4	1.0									4.4
Engineering Change Orders																					
Engineering Change Orders										0.2	0.2	0.2	0.2	0.2	0.2	0.1					1.0
Data						0.6		0.1		2.3	1.3	1.4	1.5	0.5							7.7
Training Equipment																					
Support Equipment										3.1	1.1	1.2	1.9	0.4							7.7
ILS						0.1		0.1		3.8	1.8	1.9	2.5	0.7							10.8
Other Support				*		0.8		1.0		1.8	4.0	3.3	2.2	2.3	6.6						22.0
Interim Contractor Support																					
Installation Cost						9	3.2	4	1.3	7	5.7	6	5.3	6	15.9	5	14.0	12	35.0	49	80.3
<b>Total Procurement</b>				<b>7.0</b>		<b>1.2</b>		<b>14.3</b>		<b>5.4</b>		<b>30.2</b>		<b>37.1</b>		<b>43.5</b>		<b>43.4</b>		<b>89.0</b>	<b>271.0</b>

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than \$51K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: VH-60N MODIFICATION TITLE: VH STRUCTURAL ENHANCEMENTS (OSIP 016-08)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Installation of VH-60N Top Deck - Structural Enhancements during SPAR

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 16 Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: Jul-10 FY 2011: \_\_\_\_\_

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: Nov-11 FY 2011: \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL			
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$		
FY 2008 & PY ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 (2) kits									2	3.9										2	3.9	
FY 2011 ( ) kits																						
FY 2012 (2) kits											2	3.9								2	3.9	
FY 2013 (2) kits													2	3.9						2	3.9	
FY 2014 (1) kits															1	2.0				1	2.0	
FY 2015 (1) kits																	1	2.0		1	2.0	
To Complete ( ) kits																						
<b>TOTAL</b>									<b>2</b>	<b>3.9</b>	<b>2</b>	<b>3.9</b>	<b>2</b>	<b>3.9</b>	<b>1</b>	<b>2.0</b>	<b>1</b>	<b>2.0</b>	<b>1</b>	<b>2.0</b>	<b>8</b>	<b>15.6</b>

Installation Schedule

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013					
	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				

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In			1	1			1		1	8
Out			1	1			1	1	2	8

\* Installs must follow VH-60N SPAR schedule

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: VH-3D MODIFICATION TITLE: VH STRUCTURAL ENHANCEMENTS (OSIP 016-08)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Installation of VH-3D VIP Seats - Contractor Mod Team

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: Dec-09 FY 2011: Dec-10

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: Jun-10 FY 2011: Jun-11

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY ( ) kits																					
FY 2009 ( ) kits																					
FY 2010 (7) kits					4	1.2	3	0.9												7	2.1
FY 2011 ( ) kits																					
FY 2012 (2) kits									2	0.6										2	0.6
FY 2013 (2) kits											2	0.6								2	0.6
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete ( ) kits																					
<b>TOTAL</b>					<b>4</b>	<b>1.2</b>	<b>3</b>	<b>0.9</b>	<b>2</b>	<b>0.6</b>	<b>2</b>	<b>0.6</b>								<b>11</b>	<b>3.3</b>

Installation Schedule

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In							2	2			1	2			2				2	
Out									2	2				1	2		2			

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										11
Out		2								11

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: VH-3D MODIFICATION TITLE: VH STRUCTURAL ENHANCEMENTS (OSIP 016-08)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Installation of VH-3D Fuel Systems Upgrade - Contractor Mod Team

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 2 Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: Dec-09 FY 2011: Dec-10

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: Feb-10 FY 2011: Jan-11

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY ( ) kits																					
FY 2009 ( ) kits																					
FY 2010 (6) kits					5	2.0	1	0.4												6	2.4
FY 2011 ( ) kits																					
FY 2012 (3) kits									3	1.2										3	1.2
FY 2013 (2) kits											2	0.8								2	0.8
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete ( ) kits																					
<b>TOTAL</b>					<b>5</b>	<b>2.0</b>	<b>1</b>	<b>0.4</b>	<b>3</b>	<b>1.2</b>	<b>2</b>	<b>0.8</b>								<b>11</b>	<b>4.4</b>

Installation Schedule

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In					1	2	2		1					1	2			2		
Out							1	2	2	2	1				1	2				1

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										11
Out	1									11

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: VH-3D/VH-60N MODIFICATION TITLE: VH STRUCTURAL ENHANCEMENTS (OSIP 016-08)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Installation of VH SLEP - Structural Enhancements during SPAR

ADMINISTRATIVE LEADTIME: \_\_\_\_\_ Months PRODUCTION LEADTIME: \_\_\_\_\_ Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY ( ) kits																					
FY 2009 ( ) kits																					
FY 2010 ( ) kits																					
FY 2011 ( ) kits																					
FY 2012 ( ) kits																					
FY 2013 (4) kits													4	12.0						4	12.0
FY 2014 (4) kits															4	12.0				4	12.0
FY 2015 (4) kits																	4	12.0		4	12.0
To Complete (7) kits																	7	21.0		7	21.0
<b>TOTAL</b>													<b>4</b>	<b>12.0</b>	<b>4</b>	<b>12.0</b>	<b>11</b>	<b>33.0</b>		<b>19</b>	<b>57.0</b>

Installation Schedule

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In																					
Out																					

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In		1	1	2		1	1	2	11	19
Out					1	1	2		15	19

\* Installs must follow VH-60N SPAR schedule

Exhibit P-3a Individual Modification

MODIFICATION TITLE: OBSOLESCENCE MANAGEMENT PROGRAM (OSIP 023-09)

MODELS OF SYSTEMS AFFECTED: VH-3D/VH-60N TYPE MODIFICATION: SAFETY

DESCRIPTION/JUSTIFICATION: This OSIP provides for the readiness of the VH-3D and VH-60N Presidential Helicopters. The projected end of service for the VH-3D and VH-60N is now expected to extend beyond 2020. Funds will be utilized to manage and prepare, process, and incorporate Engineering Change Proposals and implement changes to sustain and improve all Executive Helicopter Series system readiness including safety, mission availability, structural integrity, and component (avionics/systems) reliability, maintainability, and obsolescence conditions as they arise. This program contains the following efforts: Conversion of VH-60N and VH-3D engines. Non-recurring efforts will include multiple ECPs for change kits, integration testing and ILS updates. Recurring efforts include installation kits, installation equipment and installations. Replace/upgrade the Integrated Logistics Support Avionics test benches used to support VH unique avionics. Effort will install new operating systems, replace obsolete components and core computers, test equipment and basic test program hardware.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: VH-3D and VH-60N NRE for engine modifications began in FY09. NRE for the VH-60N T700-401C engine conversions began in FY 10. This modification will cover 16 engine upgrades for 8 installations on VH-60N helicopters. 2 T700-401C engines are required per aircraft.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
Engines Kit							3	0.3	3	0.3	1	0.1	1	0.1						8	0.8
Avionics Kit															2	0.6	3	1.3		5	1.9
Installation Kits N/R				0.4		1.3		0.4													2.1
Installation Equipment																					
Engines Equip							3	4.2	3	4.2	1	1.3	1	1.4						8	11.1
Avionics Equip															2	0.4	3	0.7		5	1.1
Installation Equipment N/R						0.6															0.6
Engineering Change Orders																					
ECO																					
Data						1.2															1.2
Training Equipment				4.8		0.4															5.2
Support Equipment								0.4													0.4
ILS						0.2		0.5		0.8						0.5			1.8		3.8
Other Support								0.4		0.9						0.4			2.0		3.8
Interim Contractor Support																					
Installation Cost									3	0.2	3	0.2	1	0.2	1	0.2				8	0.8
<b>Total Procurement</b>				<b>5.2</b>		<b>3.7</b>		<b>6.1</b>		<b>6.4</b>		<b>1.6</b>		<b>1.8</b>		<b>2.1</b>		<b>5.8</b>		<b>32.6</b>	

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than \$51K
3. Avionics kits will be installed at the O level

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: VH-60N MODIFICATION TITLE: OBSOLESCENCE MANAGEMENT PROGRAM (OSIP 023-09)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Mod Team

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: Jan-11

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: Jan-12

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY ( ) kits																					
FY 2009 ( ) kits																					
FY 2010 ( ) kits																					
FY 2011 (3) kits									3	0.2										3	0.2
FY 2012 (3) kits											3	0.2								3	0.2
FY 2013 (1) kits													1	0.2						1	0.2
FY 2014 (1) kits															1	0.2				1	0.2
FY 2015 ( ) kits																					
To Complete ( ) kits																					
<b>TOTAL</b>									<b>3</b>	<b>0.2</b>	<b>3</b>	<b>0.2</b>	<b>1</b>	<b>0.2</b>	<b>1</b>	<b>0.2</b>				<b>8</b>	<b>0.8</b>

Installation Schedule

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013						
	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			

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In		1				1				8
Out		3				1			1	8

Exhibit P-3a Individual Modification

MODIFICATION TITLE: VH-3D / VH-60N Trainers Conversion (OSIP 009-11)

MODELS OF SYSTEMS AFFECTED: VH-3D / 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), and in support of the alert and contingency mission requirement of the WHMO Operations Plan, a trainer conversion program has been established to convert an H-60A and SH-3D into VH-3D and VH-60N trainer aircraft to alleviate pressure on national fleet assets. This effort will allow for more in-service aircraft to be available for the mission and will preserve flight hours on in-service aircraft. The conversion will allow for modifications including the VH-60N Cockpit Upgrade, VH Communication Suite Upgrade, VH-3D Lift Improvement, and VH Structural Enhancements (Top Deck Kits and Service Life Extension Plan (SLEP) modifications). Funds will also be utilized to manage and prepare, process, and incorporate Engineering Change Proposals and implement changes that were made on all operational Executive Helicopter Series aircraft including safety, mission availability, structural integrity, and component (avionics/systems) reliability, maintainability, and obsolescence conditions as they arise.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Procurement efforts for the TH-3D and TH-60N conversion will begin in FY11, with completion of the conversion projected in FY13.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total			
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$		
RDT&E																						
PROCUREMENT																						
Installation Kits																						
TH-3D Conversion Kit							1	0.8												1	0.8	
TH-3D Structural Mod Kit									1	1.0											1	1.0
TH-60N Conversion Kit							1	0.8													1	0.8
TH-60N Structural Kit									1	3.2											1	3.2
Installation Kits N/R																						
Installation Equipment																						
TH-3D Conversion Equip							1	0.9													1	0.9
TH-3D Structural Mod Equip									1	1.4											1	1.4
TH-60N Conversion Equip							1	1.8													1	1.8
TH-60N Structural Equip									1	4.6											1	4.6
Installation Equipment N/R																						
Engineering Change Orders																						
Data																						
Training Equipment																						
Support Equipment										0.1												0.1
ILS																						
Other Support								0.7		0.5		0.2										1.3
Interim Contractor Support																						
Installation Cost							1	1.2	2	2.1	1	6.0									4	9.3
<b>Total Procurement</b>								<b>6.2</b>		<b>12.9</b>		<b>6.2</b>										<b>25.3</b>

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than \$51K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: VH-3D MODIFICATION TITLE: VH-3D / VH-60N Trainers Conversion (OSIP 009-11)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Installation of TH-3D Conversion - Contractor Mod Team

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 3 Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: Jan-11

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: Apr-11

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY ( ) kits																					
FY 2009 ( ) kits																					
FY 2010 ( ) kits																					
FY 2011 (1) kits							1	1.2												1	1.2
FY 2012 ( ) kits																					
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete ( ) kits																					
<b>TOTAL</b>							<b>1</b>	<b>1.2</b>												<b>1</b>	<b>1.2</b>

Installation Schedule

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
	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 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										1
Out										1

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: VH-3D MODIFICATION TITLE: VH-3D / VH-60N Trainers Conversion (OSIP 009-11)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Installation of TH-3D Structural Mod - Contractor Mod Team

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 9 Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY ( ) kits																					
FY 2009 ( ) kits																					
FY 2010 ( ) kits																					
FY 2011 ( ) kits																					
FY 2012 (1) kits									1	0.7										1	0.7
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete ( ) kits																					
<b>TOTAL</b>									<b>1</b>	<b>0.7</b>										<b>1</b>	<b>0.7</b>

Installation Schedule

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In																					
Out																				1	

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										1
Out										1

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: VH-60N MODIFICATION TITLE: VH-3D / VH-60N Trainers Conversion (OSIP 009-11)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Installation of TH-60N Conversion - Contractor Mod Team

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 9 Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: Jan-11

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: Oct-11

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY ( ) kits																					
FY 2009 ( ) kits																					
FY 2010 ( ) kits																					
FY 2011 (1) kits									1	1.4										1	1.4
FY 2012 ( ) kits																					
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete ( ) kits																					
<b>TOTAL</b>									<b>1</b>	<b>1.4</b>										<b>1</b>	<b>1.4</b>

Installation Schedule

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In																					
Out													1								

In	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										1
Out										1

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **VH-60N** MODIFICATION TITLE: **VH-3D / VH-60N Trainers Conversion (OSIP 009-11)**

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Installation of TH-60N Structural Mod - Contractor Mod Team**

ADMINISTRATIVE LEADTIME: **3 Months** PRODUCTION LEADTIME: **16 Months**

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY ( ) kits																					
FY 2009 ( ) kits																					
FY 2010 ( ) kits																					
FY 2011 ( ) kits																					
FY 2012 (1) kits											1	6.0								1	6.0
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete ( ) kits																					
<b>TOTAL</b>											<b>1</b>	<b>6.0</b>								<b>1</b>	<b>6.0</b>

Installation Schedule

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In																					
Out																				1	

In	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										1
Out										1

Exhibit P-40, BUDGET ITEM JUSTIFICATION							DATE: February 2010						
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/APN-5 Aircraft Modifications							P-1 ITEM NOMENCLATURE 056700, SPECIAL PROJECT AIRCRAFT						
Program Element for Code B Items:							Other Related Program Elements						
	Prior Years	ID Code	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total
QTY		A											
COST (In Millions)	263.1	A	102.7	12.3	14.7	6.1	20.8	15.2	15.4	15.7	16.0	60.5	521.6
<p>DESCRIPTION:</p> <p>The Special Projects program modifies and/or replaces obsolete special mission equipment and integrates Quick Reaction Capability as required in six P-3 aircraft. Procurements vary in each fiscal year and include common Navy systems for increased capability, reduced operator workload and common logistics, as well as procurement of special mission equipment as directed by the Chief of Naval Operations. Active PAA inventory is 4 with additional 2 BAA aircraft in the Special Mission inventory. FY2011 \$6.1M OCO Request is for VORTEX communication and P496 Production systems. The specific modifications budgeted and programmed are:</p>													
(TOA, \$ in Millions)													
<b>OSIP No.</b>	<b>Description</b>	<b>Prior Years</b>	<b>FY2009</b>	<b>FY2010</b>	<b>Base FY2011</b>	<b>OCO FY2011</b>	<b>Total FY2011</b>	<b>FY2012</b>	<b>FY2013</b>	<b>FY2014</b>	<b>FY2015</b>	<b>To Complete</b>	<b>Total</b>
019-97	INTELLIGENCE SENSORS	188.7	102.7	12.3	14.7	6.1	20.8	15.2	15.4	15.7	16.0	60.5	447.2
	INACTIVE OSIPS	74.4											74.4
<b>Total</b>		<b>263.1</b>	<b>102.7</b>	<b>12.3</b>	<b>14.7</b>	<b>6.1</b>	<b>20.8</b>	<b>15.2</b>	<b>15.4</b>	<b>15.7</b>	<b>16.0</b>	<b>60.5</b>	<b>521.6</b>
Note: Totals may not add due to rounding.													

Exhibit P-3a Individual Modification

MODIFICATION TITLE: INTELLIGENCE SENSORS ( OSIP 019-97 )

MODELS OF SYSTEMS AFFECTED: P-3B/C TYPE MODIFICATION: Operational Improvement

DESCRIPTION/JUSTIFICATION:

This modification replaces obsolescence intelligence collection equipment in six P-3 Special Project aircraft by procurement of special mission equipment as directed by the Chief of Naval Operations.

FY2009 includes a \$4.0M Congressional Add for C4ISR Operations and Training Center for Excellence.  
 FY2009 includes \$84.645M OCO Supplemental for replacement aircraft.  
 FY2011 includes \$6.1M OCO Request for VORTEX communication and P496 Production systems.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
INSTALLATION KITS																					
P-3 KITS (MISSION UNIQUE)	4	0.7																		4	0.7
INSTALLATION KITS N/R																					
INSTALL EQUIPMENT																					
IMPROVED COMM & COLLECT CAPABILITY		29.5		0.7		0.6		1.8		1.1		1.6		1.6		1.9		5.7			44.3
Impr Comm and Coll Cap OCO								1.2													1.2
MISSION UNIQUE EQUIPMENT		66.5		3.0		1.0		2.7		1.5		2.7		3.3		3.1		13.1			96.9
SPA Replacement (Special Mission)				33.7																	33.7
Mission Unique Equip OCO								1.9													1.9
Blue Force Tracking	6	1.8																		6	1.8
Collection Equipment	12	3.1																		12	3.1
INSTALL EQUIPMENT N/R		41.8		17.4		1.9		2.9		2.5		2.5		2.7		3.1		8.9			83.7
BFT/Collection Equipment		0.1																			0.1
ECO																					
DATA		2.1		0.4		0.4		0.4		0.4		0.4		0.4		0.4		1.6			6.6
TRAINING EQUIP		6.3		4.0		0.1		0.1		0.2		0.1		0.2		0.1		0.4			11.2
BFT/Collection Equipment		0.2																			0.2
SUPPORT EQUIP		0.1		0.1		0.1		0.1		0.1		0.1		0.1		0.1		0.3			0.8
ILS		2.5		0.6		0.2		0.2		0.3		0.3		0.3		0.3		1.2			5.9
OTHER SUPPORT		22.1		6.8		4.4		3.8		4.2		4.2		3.9		3.8		17.0			70.2
INTERIM CONTRACTOR SUPPORT																					
INSTALLATION COST		12.1		36.2		3.7		2.7		5.0		3.7		3.2		3.2		12.1			81.9
Installation OCO								3.0													3.0
<b>Total Procurement</b>		<b>188.7</b>		<b>102.7</b>		<b>12.3</b>		<b>20.8</b>		<b>15.2</b>		<b>15.4</b>		<b>15.7</b>		<b>16.0</b>		<b>60.5</b>			<b>447.2</b>

Notes:

- Totals may not add due to rounding.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3B/C

MODIFICATION TITLE: Operational Improvement

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Drive In and Navy Field Mod Team

ADMINISTRATIVE LEADTIME: 2 Months

PRODUCTION LEADTIME: 8 Months

CONTRACT DATES: FY 2009: Apr-09

FY 2010: Apr-10

FY 2011: Nov-10

DELIVERY DATE: FY 2009: Dec-09

FY 2010: Dec-10

FY 2011: Jul-11

(\$ in millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (22) kits	22	12.1		2.7																22	14.7
FY 2009 ( ) kits				33.6		3.7															37.2
FY 2010 ( ) kits								0.8													0.8
FY 2011 ( ) kits								4.9		5.0											9.9
FY 2012 ( ) kits											2.2										2.2
FY 2013 ( ) kits											1.5		3.2								4.7
FY 2014 ( ) kits																2.1					2.1
FY 2015 ( ) kits																1.1					1.1
To Complete ( ) kits																		12.1			12.1
<b>TOTAL</b>	<b>22</b>	<b>12.1</b>		<b>36.2</b>		<b>3.7</b>		<b>5.7</b>		<b>5.0</b>		<b>3.7</b>	<b>3.2</b>		<b>3.2</b>		<b>3.2</b>		<b>12.1</b>	<b>22</b>	<b>84.9</b>

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
		1	2	3	4	1.0	2.0	3.0	4.0	1.0	2	3	4	1	2	3	4	1	2	3	4	
In																						
Out																						

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2.0	3.0	4.0		
In										
Out										

Note: Installation equipment includes both Mission Unique and Improved Communication Capabilities to be installed concurrently.

Exhibit P-40, BUDGET ITEM JUSTIFICATION							DATE: February 2010						
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/APN-5 Aircraft Modifications							P-1 ITEM NOMENCLATURE 056900, T-45 SERIES						
Program Element for Code B Items:							Other Related Program Elements						
	Prior Years	ID Code	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total
QTY		A											
COST (In Millions)	287.4	A	64.5	48.8	61.5		61.5	66.3	64.5	73.9	87.8	675.7	1,430.3
<p>DESCRIPTION:</p> <p>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 2011 is to correct discrepancies and deficiencies discovered after delivery of the aircraft and to commence upgrades to the aircraft cockpit and navigation systems. T-45 aircraft and simulators are facing critical avionics obsolescence and Diminishing Manufacturing Source (DMS) issues. OSIP 08-95 (Corrections Of Deficiencies) was established to resolve safety and reliability issues, improve required mission capabilities, and increase service life of aircraft components. OSIP 03-03 (Engine Surge) was established to resolve engine surge critical safety issue. OSIP 17-04 (Avionics Obsolescence) was established to convert the T-45As (analog) to the digital T-45C configuration (Required Avionics Modernization Program (RAMP)). OSIP ( 02-06) (Synthetic Radar) was established because the T-2/T-39 divestiture schedule (T-2 divested in 2008 and T-39 in 2012) and the training command requirement to continue Undergraduate Military Flight Officer (UMFO) training. No new Type Model Series will be developed to pickup this requirement, as a result, the T-45 will modify 19 aircraft to incorporate Synthetic Radar Training into curriculum. OSIP 13-06 will fund the Non-recurring Engineering (NRE) associated with modification of the Airborne Data Recorder (ADR) to provide a Crash Survivable Memory Unit (CSMU). The CSMU will assure flight incident data is available after an aircraft mishap to assist in reconstructing the cause of mishaps.</p> <p>The designed service life of the aircraft is 14,400 hours with the average remaining service life of inventory aircraft estimated at 6,092 hours.</p> <p>The specific modifications budgeted and programmed are:</p>													
(TOA, \$ in Millions)													
OSIP No.	Description	Prior Years	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total
008-95	T-45TS CORR OF DEF	129.4	27.0	19.3	15.4		15.4	34.4	35.2	45.4	53.6	175.2	534.9
003-03	ENGINE SURGE	15.6	2.9	9.0	5.1		5.1	12.2	8.0	11.2	11.3	432.5	507.8
010-04	T-45TS GPS	6.6	1.3	1.0	0.7		0.7	0.8	0.8				11.3
017-04	AVIONICS OBSOLESC	94.7	21.3	13.7	25.5		25.5	17.1	19.7	17.2	22.9	55.1	287.2
002-06	SYNTHETIC RADAR	22.5	12.0	5.8	14.9		14.9	1.7	0.8			13.0	70.7
	INACTIVE OSIPS	18.5											18.5
<b>Total</b>		<b>287.4</b>	<b>64.5</b>	<b>48.8</b>	<b>61.5</b>		<b>61.5</b>	<b>66.3</b>	<b>64.5</b>	<b>73.9</b>	<b>87.8</b>	<b>675.7</b>	<b>1430.3</b>
<p>Note: Totals may not add due to rounding.</p>													

CLASSIFICATION: UNCLASSIFIED

Exhibit P-3a Individual Modification

MODIFICATION TITLE: T-45TS CORR OF DEFICIENCIES (OSIP 008-95)

MODELS OF SYSTEMS AFFECTED: T-45TS TYPE MODIFICATION: Safety, Reliability, Increased Service Life, Improved Mission Capabilities

DESCRIPTION / JUSTIFICATION:

EJECTION SEAT CHANGES: Modifications will enhance aircrew safety. Modifications include pilot tube covers, changes to the ejection sequencer, ejection seat handle modification and rail system.  
 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: Updates to the T-45 aircraft simulator will be made to match evolving aircraft configurations/modifications and flight characteristics/software/academics enhancements to improve training capabilities.  
 AIRFRAME ECPs are divided into two categories; Structural and Systems.  
 STRUCTURAL ECPs: Modifications will incorporate changes to improve structural details to increase aircraft service life to 21,600 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 to include Wing Dolly, SS 02 Monitor Bracket, Horizontal Stabilators, Frame 24 Crossbeam Lugs, Wing Leading Edge Redesign, Frame 29 Lower Flange, Uplock Beam Forward Attach, Slat Track Rib 5 Downstop Bolt, Frame 28/32 Boundary/Vertical Fin, Frame 33 Structure, Inlet Close-Out Fuel, Airframe Engine Mount, Frame 21 Structure, MLG Bay Tilted & Fasteners, Longitudinal Systems Viscous, Frame 20 Structures, Frame 12 Vertical Splice, Frame 1 Structures and ballast provisions, NLF Trunnion Beam, Slat Actuator Fitting Angle, Structure Life Improvement, Speed Brake, Engine Mount Link Option, Stabilizer Back-Up Structures, Fuselage/Frame 10 Door, and Fin Bracket Lever Box Assembly, Over Center Locking Mechanism.  
 SYSTEMS ECPs: Modifications to the airframe other than structural deficiencies 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: forward, center and aft fuselage components, landing gear, tail cone, wing, horizontal and vertical control surfaces, flaps, canopy/windscreen, hydraulic system, oxygen system, electrical system, fuel system, throttle, 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, 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/Signal Data Computer/Advanced Signal Data Computer, Almanac Loading System, Mission Computer, communication systems, navigation systems, including Radar Altimeter, GPS and inverter.  
 ENGINE/POWER AND PROPULSION: Modifications under this category include modification to the Engine, Gas Turbine Starter, and Electrical System which will increase the reliability, maintainability and safety of these systems. Engine modifications include Engine Mounts, Fuel Pumps, Combustion Chamber, Compressors, Nozzle Guide Vanes, Drive Systems, Oil System, Air Systems, Turbines, Fuel Distribution and Control and modifications to address engine surge/compressor stall. Gas Turbine Starter modifications include updating the starting system with solid state circuitry and incorporation of a new turbine wheel. Electrical modifications include incorporation of generator improvements and wiring modifications.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: T-45 aircraft achieves 14,400 flight hour aircraft service life limit with incorporation of Frame 33 structure modification.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
Airframe Structural	1,381	27.0	60	1.5	60	0.6	22	0.2	32	9.4	128	10.4	128	13.2	128	13.1	516	129.0	2455	204.4	
Airframe Systems	602	8.6	74	0.4	8		6	0.1	44	4.9	44	5.6	44	2.3	44	2.3	428	6.8	1294	31.0	
Avionics	676	11.9	192	3.6	144	3.9	132	1.0	130	6.9	90	2.5	20	1.3	12	1.5	302	10.8	1698	43.4	
Ejection Seat Handle MB-9155	416	0.4																	416	0.4	
Engines/Power & Propulsion	1,064	7.7	173	0.6	117	0.8	40	0.6	142	1.2	40	0.6	20	0.3	20	0.3	160	3.0	1776	14.9	
Ground Training Systems TBD	49	2.3																	49	2.3	
SLEP (wing)				4.7									3	18.9	5	27.7			8	51.3	
Uncommanded Gear Extension	35	0.7																	35	0.7	
Installation Kits N/R		11.3		6.6		4.6		6.6		5.8		7.4		0.6		0.4		7.0		50.3	
Installation Equipment																					
Airframe Structural	8	0.4					100	2.1	100	2.0	50	0.5							258	5.1	
Airframe Systems	2	1.3					100	2.1	100	2.0	50	0.5							252	6.0	
Avionics	7	1.4																	7	1.4	

CLASSIFICATION: UNCLASSIFIED

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
Ejection Seat Handle MB-9155	1	0.2																	1	0.2
Engines/Power & Propulsion	2	2.0																	2	2.0
Ground Training Systems TBD	5	0.7																	5	0.7
Uncommanded Gear Extension	1	*																	1	*
Installation Equipment N/R		2.0																		2.0
Engineering Change Orders																				
Data		0.8					*		*		*		*		*		*			1.0
Training Equipment		7.1																		7.1
Support Equipment		1.4					0.1		0.1		0.1		0.1		0.1		0.1			1.7
ILS																				
Other Support		1.3		6.4		7.0		2.2		1.5		2.3		1.0		1.3		1.5		24.5
Interim Contractor Support																				
Installation Cost	2,268	40.7	412	3.2	783	2.5	622	0.4	356	0.6	368	5.2	230	7.8	176	7.0	902	17.2	6117	84.5
<b>Total Procurement</b>		129.4		27.0		19.3		15.4		34.4		35.2		45.4		53.6		175.2		534.9

Notes:  
 1. Totals may not add due to rounding  
 2. Asterisk indicates amount less than \$51K  
 Note: In FY2008 & Prior there are 919 O-level installs out of 4249 procured kits.  
 Note: In FY2009 there are 84 O-level installs out of 499 procured kits  
 Note: In FY2010 there are 84 O-level installs out of 329 procured kits.  
 Note: In FY2011 there are 84 O-level installs out of 400 procured kits.  
 Note: In FY2012 there are 244 O-level installs out of 548 procured kits  
 Note: In FY2013 there are 130 O-level installs out of 402 procured kits  
 Note: In FY2014 there are 40 O-level installs out of 215 procured kits.  
 Note: In FY2015 there are 18 O-level installs out of 209 procured kits  
 Note: In To Complete there are 537 O-level installs out of 1406 procured kits  
 Note: Total U-Level installs are 2140 kits

CLASSIFICATION: UNCLASSIFIED

Exhibit P-3a  
 MODELS OF SYSTEMS AFFECTED: T-45TS MODIFICATION TITLE: T-45TS CORR OF DEFICIENCIES (OSIP 008-95)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: "I" and "D" Level Installation: Contractor Field Modification Team-Separate Contract

ADMINISTRATIVE LEADTIME: VARIOUS Months PRODUCTION LEADTIME: VARIOUS Months

CONTRACT DATES: FY 2009: VARIOUS FY 2010: VARIOUS FY 2011: VARIOUS

DELIVERY DATE: FY 2009: VARIOUS FY 2010: VARIOUS FY 2011: VARIOUS

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL				
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$			
FY 2008 & PY (4249) kits	2,268	40.7	412	3.2	650	2.1															3,330	46.0	
FY 2009 (499) kits					100	0.3	315	0.2														415	0.5
FY 2010 (329) kits					33	0.1	122	0.1	90	0.1												245	0.3
FY 2011 (400) kits							185	0.1	131	0.2												316	0.3
FY 2012 (548) kits									135	0.2	169	2.4										304	2.6
FY 2013 (402) kits											199	2.8	73	2.5								272	5.3
FY 2014 (215) kits													157	5.3	18	0.7						175	6.0
FY 2015 (209) kits															158	6.2	33	0.6				191	6.9
TO COMPLETE (1406) kits																	869	16.5			869	16.5	
TOTAL	2268	40.7	412	3.2	783	2.5	622	0.4	356	0.6	368	5.2	230	7.8	176	7.0	902	17.1			6,117	84.5	

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	2268	103	103	103	103	195	195	195	198	155	155	155	157	89	89	89	89	92	92	92	92
Out	2268	103	103	103	103	195	195	195	198	155	155	155	157	89	89	89	89	92	92	92	92

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In	57	57	57	59	44	44	44	44	902	6117
Out	57	57	57	59	44	44	44	44	902	6117

Exhibit P-3a Individual Modification

MODIFICATION TITLE: ENGINE SURGE (OSIP 003-03)

MODELS OF SYSTEMS AFFECTED: T-45TS TYPE MODIFICATION: PS Safety

DESCRIPTION / JUSTIFICATION: Engine Surge: T-45 engine surge is a critical safety concern for a single engine aircraft with over 450 surge events documented, including over 70 surges requiring engine shutdown and restart emergency action. Kits include modifications to airframe, engine, and fuel control system.

Funding was provided to correct T-45 F405 engine surge. Non-Recurring Engineering efforts started in FY03. Kit procurement began in FY07.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
Airframe Kit	48	2.9	24	1.7	24	1.0	12	0.9	36	2.7	24	1.9	24	2.0	11	1.1			203	14.1	
Engine Kit					4	7.2	1	1.9	3	5.8	1	2.0	2	4.0	3	6.0	189	430.0	203	456.9	
Installation Kits N/R		10.7				*		0.2		0.3		0.3		0.4		0.4		1.0		13.0	
Installation Equipment								0.1		0.1		0.1		0.2		0.2				0.6	
Installation Equipment N/R								0.1		0.1		0.1		0.2		0.2				0.6	
Engineering Change Orders																					
Data		0.1				*		0.1		0.1		0.1		0.1		0.1		0.1		0.7	
Training Equipment		*																		*	
Support Equipment		0.6				*		0.8		1.5		1.4		1.7		1.0		0.1		7.1	
ILS		*				*		0.1		0.1		0.1		0.2		0.2		0.1		0.7	
Other Support		1.3		1.2		0.2		0.5		1.2		1.2		1.5		1.3		1.0		9.4	
Interim Contractor Support								0.1		0.2		0.3		0.5		0.4		0.1		1.4	
Installation Cost	24	*	24	*	24	0.5	28	0.5	13	0.3	39	0.6	25	0.5	26	0.5	203	0.3	406	3.2	
<b>Total Procurement</b>		15.6		2.9		9.0		5.1		12.2		8.0		11.2		11.3		432.5		507.8	

- Notes:
1. Totals may not add due to rounding.
  2. Asterisk indicates amount less than \$51K.
  3. Three simulator kits installed in FY10.

**Exhibit P-3a**

MODELS OF SYSTEMS AFFECTED: T-45TS MODIFICATION TITLE: ENGINE SURGE (OSIP 003-03)  
T45TS AIRFRAME KITS

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 18 Months

CONTRACT DATES: FY 2009: Mar 09 FY 2010: Mar-10 FY 2011: Mar-11

DELIVERY DATE: FY 2009: Sep 10 FY 2010: Sep 11 FY 2011: Sep 12

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (48) kits	24	*	24	*																48	0.1
FY 2009 (24) kits					24	0.5														24	0.5
FY 2010 (24) kits							24	0.5												24	0.5
FY 2011 (12) kits									12	0.2										12	0.2
FY 2012 (36) kits											36	0.6								36	0.6
FY 2013 (24) kits													24	0.5						24	0.5
FY 2014 (24) kits															24	0.5				24	0.5
FY 2015 (11) kits																	11	0.2		11	0.2
TO COMPLETE () kits																					
<b>TOTAL</b>	24	*	24	*	24	0.5	24	0.5	12	0.2	36	0.6	24	0.5	24	0.5	11	0.2	203	3.1	

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		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				12				36
Out	24				24				24				24				12				36

  

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In				24				24	11	203
Out				24				24	11	203

**Exhibit P-3a**

MODELS OF SYSTEMS AFFECTED: T-45TS MODIFICATION TITLE: ENGINE SURGE (OSIP 003-03)  
T45TS ENGINE KITS

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 18 Months

CONTRACT DATES: FY 2009: \_\_\_\_\_ FY 2010: Mar-10 FY 2011: Mar-11

DELIVERY DATE: FY 2009: \_\_\_\_\_ FY 2010: Sep 11 FY 2011: Sep 12

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY () kits																					
FY 2009 () kits																					
FY 2010 (4) kits							4	*												4	*
FY 2011 (1) kits									1	*										1	*
FY 2012 (3) kits											3	*								3	*
FY 2013 (1) kits													1	*						1	*
FY 2014 (2) kits															2	*				2	*
FY 2015 (3) kits																	3	*		3	*
TO COMPLETE (215) kits																	189	*		189	*
TOTAL							4	*	1	*	3	*	1	*	2	*	192	*		203	*

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		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 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In				1				2	192	203
Out				1				2	192	203

Exhibit P-3a Individual Modification

MODIFICATION TITLE: AVIONICS OBSOLESCENCE (OSIP 017-04)

MODELS OF SYSTEMS AFFECTED: T-45TS A/C 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 with such items as the Global Positioning Inertial Navigation Assembly (GINA) (FPGA and processor), Mission Display Processor (MDP) (Diode), Display Processor (Diode), Airborne Data Recorders (Line in Buffer Amplifier), Display Unit, Signal Data Computer, Azimuth Computer and various other avionics components.

The Required Avionics Modernization Program (RAMP) is the Analog to Digital conversion of the T-45A aircraft. The RAMP effort consists of a Glass Cockpit upgrade consisting of two Multi-Function Displays per cockpit, mission display processor, recorder, associated cockpit controls and a 1553 digital, integrating them with the existing head-up display (HUD), the airborne data recorder, and a separately procured Global positioning system inertial navigation assembly.

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 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
RAMP	42	32.8	9	5.9	9	4.7	10	9.2												70	52.5
RAMP/Obsolescence Kits	546	7.1	200	0.1	200	*	200	9.6	200	13.5	200	17.3	400	14.4	400	20.4	1,000	53.3	3,346	135.7	
Installation Kits N/R		9.1		0.3		0.8		0.2		0.5		0.1									11.0
Installation Equipment																					
AS-3822/URN (GPS ANTENNA (FR	42	0.1	9	*	9	*	10	*												70	0.2
ASDC/DDS	42	2.0	9	1.5	9	0.7	10	1.0	13	1.2	13	1.2	12	1.1	12	1.1			120	9.8	
ATTITUDE INDICATOR			9	0.3	9	0.2	10	0.1												28	0.6
CP-2092 (P/A (DDS)	42	0.8	9	0.1	9	0.2	10	0.1												70	1.1
FFI	42	0.3	9	0.2	9	0.1	10	0.1												70	0.6
MDP	42	9.5	9	1.9	9	2.6	10	1.6												70	15.6
MFCD	42	6.1	9	1.5	9	1.4	10	0.9												70	9.9
MU-1053/A (PROGRAM LOADER)	42	0.2	9	*	9	*	10	*												70	0.3
PDU	42	1.0	9	0.4	9	0.4	10	0.2												70	2.0
PYROTECHNIC	42	0.1	9	0.1	9	*	10	*												70	0.3
UAR DDS RECORDER																					
SADS	42	0.4	9	0.2	9	0.2	10	0.1												70	0.9
Installation Equipment N/R																					
Engineering Change Orders																					
Data																					
Training Equipment	4	21.2	2	5.6																6	26.8
Support Equipment		0.1																			0.1
ILS				0.2																	0.2
Other Support		2.3		1.2		1.3		1.3		0.4		0.2		1.2		1.3		1.8			10.9
Interim Contractor Support																					
Installation Cost	7	1.7	13	1.8	12	1.1	11	1.1	12	1.6	11	1.0	4	0.5						70	8.7
<b>Total Procurement</b>		<b>94.7</b>		<b>21.3</b>		<b>13.7</b>		<b>25.5</b>		<b>17.1</b>		<b>19.7</b>		<b>17.2</b>		<b>22.9</b>		<b>55.1</b>			<b>287.2</b>

Notes:  
 1. Totals may not add due to rounding.  
 2. Asterisk indicates amount less than \$51K.  
 \*Note: Aircraft was conditionally DD250 without Prior year buys of the Recorder Install Equipment B kits, B kits will be put in FY12.  
 \*Note: Attitude Indicator install equipment was not required in all aircraft.  
 \*Note: Obsolescence kits will be installed "O" level by the fleet.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: T-45TS A/C MODIFICATION TITLE: AVIONICS OBSOLESCENCE (OSIP 017-04)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 7 Months PRODUCTION LEADTIME: 24 Months

CONTRACT DATES: FY 2009: Sep 09 FY 2010: Apr 10 FY 2011: Apr 11

DELIVERY DATE: FY 2009: Sep 11 FY 2010: Apr 12 FY 2011: Apr 13

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2008 & PY (42) kits *	7	1.7	13	1.8	12	1.1	10	1.0											42	5.5
FY 2009 (9) kits							1	0.1	8	1.4									9	1.5
FY 2010 (9) kits									4	0.2	5	0.8							9	0.9
FY 2011 (10) kits											6	0.3	4	0.5					10	0.8
FY 2012 () kits																				
FY 2013 () kits																				
FY 2014 () kits																				
FY 2015 () kits																				
TO COMPLETE () kits																				
<b>TOTAL</b>	<b>7</b>	<b>1.7</b>	<b>13</b>	<b>1.8</b>	<b>12</b>	<b>1.1</b>	<b>11</b>	<b>1.1</b>	<b>12</b>	<b>1.6</b>	<b>11</b>	<b>1.0</b>	<b>4</b>	<b>0.5</b>					<b>70</b>	<b>8.7</b>

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	7	4	2	3	4	3	3	3	3	3	3	3	2	3	3	3	3	3	2	3	3
Out	7	4	2	3	4	3	3	3	3	3	3	3	2	3	3	3	3	3	2	3	3

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In	3	1								70
Out	3	1								70

CLASSIFICATION: UNCLASSIFIED

Exhibit P-3a Individual Modification

MODIFICATION TITLE: SYNTHETIC RADAR (OSIP 002-06)

MODELS OF SYSTEMS AFFECTED: T-45TS TYPE MODIFICATION: PS Safety

DESCRIPTION / JUSTIFICATION: With the T-2 and T-39 divestiture in 2008 and 2012 respectively, the training command cannot complete Uniformed Military Flight Officer (UMFO) training. No new Type Model Series will be developed to pick up this requirement. As a result, the T-45 will modify 19 aircraft to incorporate Virtual Mission Training System into the curriculum. The effort will include two phases of integration to incorporate a commercial off the shelf synthetic radar system into the T-45. Phase I includes determining the integration requirements for the air-to-air (A/A) and minimal air-to-ground (A/G) synthetic radar capabilities and completing the T-45 integration effort. Phase II includes determining the integration requirements for increased A/G fidelity simulation and weapons sensors simulation while also completing the Phase II integration effort. Two val/ver kits will be utilized for testing.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: FY07-08 provided funding for NRE and 2 prototype kits, FY09-11 provides funding for NRE and 4 kits.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
VMTS	2	2.0			2	2.0	2	2.0									15	5.5	21	11.5	
Installation Kits N/R		8.8		5.4		1.0		6.8													22.0
Installation Equipment																					
VMTS EQUIPMENT	2	2.0					2	0.7									17	2.4	21	5.2	
Installation Equipment N/R		5.4				0.1		0.7													6.2
Engineering Change Orders																					
Data		0.9		1.0																	1.9
Training Equipment	1	1.0															1	0.4	2	1.4	
Support Equipment		1.2		4.3																	5.5
ILS								0.5											0.5		1.0
Other Support		1.2		1.4		2.1		3.3		1.1		0.8							0.8		10.6
Interim Contractor Support								0.2													0.2
Installation Cost					2	0.6	2	0.6	2	0.6							15	3.4	21	5.2	
<b>Total Procurement</b>		22.5		12.0		5.8		14.9		1.7		0.8						13.0			70.7

- Notes:
1. Totals may not add due to rounding.
  2. Asterisk indicates amount less than \$51K.

CLASSIFICATION: UNCLASSIFIED

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: T-45TS MODIFICATION TITLE: SYNTHETIC RADAR (OSIP 002-06)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 15 Months

CONTRACT DATES: FY 2009: Mar 09 FY 2010: Mar 10 FY 2011: Mar 11

DELIVERY DATE: FY 2009: Jun 10 FY 2010: Jun 11 FY 2011: Jun 12

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (2) kits					2	0.6															
FY 2009 () kits																					
FY 2010 (2) kits							2	0.6												2	0.6
FY 2011 (2) kits									2	0.6										2	0.6
FY 2012 () kits																					
FY 2013 () kits																					
FY 2014 () kits																					
FY 2015 () kits																					
TO COMPLETE (15) kits																	15	3.4	15	3.4	
TOTAL					2	0.6	2	0.6	2	0.6							15	3.4	21	5.2	

Installation Schedule

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In							2				2				2						
Out							2				2				2						

  

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In									15	21
Out									15	21

Exhibit P-40, BUDGET ITEM JUSTIFICATION							DATE: February 2010						
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/APN-5 Aircraft Modifications							P-1 ITEM NOMENCLATURE 0570, POWER PLANT CHANGES						
Program Element for Code B Items:							Other Related Program Elements						
	Prior Years	ID Code	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total
QTY		A											
COST (In Millions)	440.3	A	26.4	26.3	19.9		19.9	20.1	20.3	20.7	21.2	20.5	615.7
<p>Description: This line item funds modifications to all in-service aircraft engines. Power Plant Changes (PPC) 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 transmissions. The overall goal of the modifications budgeted in FY 2011 is to continue modification efforts previously initiated on the engines for the AV-8B, F/A-18C/D &amp; E/F, S-3, F-16, H-60, H-3, H-46, H-53, EA-6B, T-2, T-38, T-45, P-3, E-2, C-2, C-130, UH-1N/HH-1N, AH-1W, and V-22.</p> <p>The following depicts the current funding levels budgeted and programmed for Power Plant Changes:</p>													
(TOA, \$ in Millions)													
<u>OSIP No.</u>	<u>Description</u>	<u>Prior Years</u>	<u>FY2009</u>	<u>FY2010</u>	<u>Base FY2011</u>	<u>OCO FY2011</u>	<u>Total FY2011</u>	<u>FY2012</u>	<u>FY2013</u>	<u>FY2014</u>	<u>FY2015</u>	<u>To Complete</u>	<u>Total</u>
040-00	Power Plant Changes	440.3	26.3	26.3	19.9		19.9	20.1	20.3	20.7	21.2	20.5	615.6
	DAWDF Realignment		0.1										0.1
<b>Total</b>		<b>440.3</b>	<b>26.4</b>	<b>26.3</b>	<b>19.9</b>		<b>19.9</b>	<b>20.1</b>	<b>20.3</b>	<b>20.7</b>	<b>21.2</b>	<b>20.5</b>	<b>615.7</b>
<p>Note: Totals may not add due to rounding.</p>													

Exhibit P-3a Individual Modification

MODIFICATION TITLE: Power Plant Changes (OSIP 040-00)

MODELS OF SYSTEMS AFFECTED: Power Plant Changes 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 change. The Power Plant Change program procures the necessary power plant change retrofit kits, support equipment, kit installation and technical data. This program provides retrofit kits for all Navy and Marine Corp 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. Aircraft engines included in Power Plant changes include: F100 Engine F-16, F402 Engine A/V-8B, F404 Engine F/A-18, F405 Engine T-45, F414 Engine F/A18-E/F, J52 Engine EA-6B, J85 Engine T-38 and T-2, T400 Engine AH-1W and UH-1N, T406 Engine V-22, T56 Engine P-3, C-2, E-2, and C-130, T58 Engine H-3 and H-46, T64 Engine H-53, T700 Engine H-60 and AH-1, and TF34 Engine S-3.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: N/A

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total			
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$		
RDT&E		547.1		58.2		78.3		79.9		85.4		86.7		88.2		89.6					1023.8	
PROCUREMENT																						
Installation Kits																						
F100 (F-16)	22	0.1																		22	0.1	
F402 (A/V-8B)	7,194	18.5	302	0.8	235	1.0	400	1.7	373	2.6	295	1.5	295	1.6	295	1.6	300	2.0		9,689	31.3	
F404 (F/A-18)	14,148	12.9	560	0.7	460	0.5	235	0.6	206	0.6	340	1.0	340	1.0	340	1.0	340	1.0		16,969	19.2	
F405 (T-45)	2,294	11.9	65	3.3	86	4.3														2,445	19.5	
F414 (F/A18-E/F)	6,847	12.4	1,042	0.8	192	0.5	50	0.5	50	0.5	100	1.0	100	1.0	100	1.0	100	1.0		8,581	18.7	
J52 (EA 6/B)	5,913	12.8	258	1.4	240	1.3	210	1.1	240	1.3	280	1.5	280	1.5	280	1.5	200	1.0		7,901	23.4	
J85 (T-38, T-2)	753	2.3	60	0.1																	813	2.4
T400 (AH1W, UH1N)	1,352	2.3	88	0.6	63	0.3	63	0.3													1,566	3.5
T406 (V22)	22	0.2																			22	0.2
T56 (P-3, C-2, E-2, C-130)	8,195	25.6	1,900	10.2	1,813	10.3	913	7.0	1,013	4.1	1,200	5.0	1,000	4.1	1,200	5.3	1,000	7.0		18,234	78.7	
T58 (H-3, H-46)	2,316	4.6	127	0.6	50	0.5															2,493	5.7
T64 (H-53)	11,077	15.5	2,905	5.1	2,576	5.0	1,981	3.6	2,500	3.8	4,123	4.2	3,950	5.3	4,130	4.4	4,000	8.0		37,242	55.0	
T700 (H-60, AH-1)	6,775	34.9	200	0.9	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5		7,675	39.3	
TF34 (S-3)	346	0.5																			346	0.5
Completed ECPs from Prior Yrs	35,198	200.5																			35,198	200.5
Installation Kits N/R																						
Installation Equipment																						
Installation Equipment N/R		0.2																				0.2
Engineering Change Orders																						
Data		0.5		0.1		0.2		0.1		0.1		0.1		0.1		0.1						1.0
Training Equipment																						
Support Equipment		0.2		0.1		0.2		0.1		0.3		0.1		0.1		0.1						0.9
ILS		5.8		0.2		0.2		1.2		1.5		1.2		1.2		1.2						12.5
Other Support		41.8		0.3		0.4		2.0		2.1		2.3		2.3		2.4						53.5
Interim Contractor Support																						
Installation Cost	11,487	36.9	756	1.2	675	1.2	740	1.2	500	2.8	500	2.0	500	2.1	500	2.1	6,040			21,698	49.5	
<b>Total Procurement</b>		<b>440.3</b>		<b>26.3</b>		<b>26.3</b>		<b>19.9</b>		<b>20.1</b>		<b>20.3</b>		<b>20.7</b>		<b>21.2</b>		<b>20.5</b>			<b>615.6</b>	

- Notes:  
 1. Totals may not add due to rounding  
 2. Asterisk indicates amount less than \$51K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: Power Plant Changes MODIFICATION TITLE: Power Plant Changes (OSIP 040-00)

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. Current with engine/module repair (where installation cost is zero), or by forced retrofit (shown below).

METHOD OF IMPLEMENTATION:  
 ADMINISTRATIVE LEADTIME: Average of 6 Months PRODUCTION LEADTIME: Average of 12 Months

CONTRACT DATES: FY 2009: Various FY 2010: Various FY 2011: Various

DELIVERY DATE: FY 2009: Various FY 2010: Various FY 2011: Various

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (11,487) kits	11,487	36.9																		11,487	36.9
FY 2009 (756) kits			756	1.2																756	1.2
FY 2010 (675) kits					675	1.2														675	1.2
FY 2011 (740) kits							740	1.2												740	1.2
FY 2012 (500) kits									500	2.8										500	2.8
FY 2013 (500) kits											500	2.0								500	2.0
FY 2014 (500) kits													500	2.1						500	2.1
FY 2015 (500) kits															500	2.1				500	2.1
To Complete (6040) kits																	6,040			6,040	
<b>TOTAL</b>	<b>11,487</b>	<b>36.9</b>	<b>756</b>	<b>1.2</b>	<b>675</b>	<b>1.2</b>	<b>740</b>	<b>1.2</b>	<b>500</b>	<b>2.8</b>	<b>500</b>	<b>2.0</b>	<b>500</b>	<b>2.1</b>	<b>500</b>	<b>2.1</b>	<b>6,040</b>		<b>21,698</b>	<b>49.5</b>	

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	11,487	189	189	189	189	168	169	169	169	185	185	185	185	125	125	125	125	125	125	125	125
Out	11,487	189	189	189	189	168	169	169	169	185	185	185	185	125	125	125	125	125	125	125	125

  

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In	125	125	125	125	125	125	125	125	6040	21,698
Out	125	125	125	125	125	125	125	125	6040	21,698

Exhibit P-40, BUDGET ITEM JUSTIFICATION							DATE: February 2010						
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/APN-5 Aircraft Modifications							P-1 ITEM NOMENCLATURE 057100, JPATS SERIES						
Program Element for Code B Items:							Other Related Program Elements						
	Prior Years	ID Code	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total
QTY		A											
COST (In Millions)	12.3	A	7.1	4.9	1.8		1.8	1.5	1.6	1.6	1.6	90.0	122.5
<p>DESCRIPTION:</p> <p>This line item funds modifications to the Joint Primary Aircraft Training System (JPATS). JPATS is a joint USN/USAF Acquisition Program designed to replace the aging primary aircraft (T-34/T-37) fleet. 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. JPATS includes the T-6 Texan II which is a single turboprop engine, stepped tandem seat, commercially derived aircraft power by a single Pratt &amp; Whitney 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 fiscal year 2011 is to correct discrepancies and deficiencies discovered after delivery of the aircraft; and to maintain, where appropriate, joint configuration with Air Force aircraft. The T-6B derivative incorporates major upgrades to the aircraft cockpit, navigation system, and aircrew life support system (ALSS). Six (6) aircraft will receive modifications in fiscal year 2011.</p>													
(TOA, \$ in Millions)													
OSIP No.	Description	Prior Years	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total
011-04	JPATS CORRECTION OF DEFI	12.3	5.2	4.9	1.8		1.8	1.5	1.6	1.6	1.6	90.0	120.6
	DAWDF Realignment		1.9										1.9
<b>Total</b>		<b>12.3</b>	<b>7.1</b>	<b>4.9</b>	<b>1.8</b>		<b>1.8</b>	<b>1.5</b>	<b>1.6</b>	<b>1.6</b>	<b>1.6</b>	<b>90.0</b>	<b>122.5</b>
<p>Note: Totals may not add due to rounding.</p>													

Exhibit P-3a	Individual Modification
MODIFICATION TITLE:	<u>JPATS CORRECTION OF DEFICIENCIES (OSIP 011-04)</u>
MODELS OF SYSTEMS AFFECTED:	<u>T-6A/B</u> TYPE MODIFICATION: <u>PS Safety</u>
<p>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 retrofiting 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:</p> <p><b>VHF radio ECP (ECP-055)</b> - 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.</p> <p><b>Nose Wheel Centering (ECP-052)</b> - Safety modification to provide positive nose wheel centering in flight. Category 1 Deficiency.</p> <p><b>MLG Door Tie Rods</b> - Retrofit of improved durability MLG door tie rod.</p> <p><b>MLG Side brace Redesign (ECP-059)</b> - Re-work of existing MLG drag link. Improve grease fitting access to maintainability improvement.</p> <p><b>Oil Pressure Warning</b> - Safety modifications to correct oil pressure cockpit warning indications and associated systems to improving aircrew situational awareness and overall systems operation.</p> <p><b>OBOGS Upgrades (ECP-049)</b> - Safety modifications to improve the normal and emergency aircrew oxygen supply systems. Mods address increased supply, delivery control box and software logic corrections.</p> <p><b>Trim System Redesign</b> - Safety modification to reduce trim actuator force limit, decrease activation speed. Results in shorter landing distances.</p> <p><b>Braking (anti-skid)</b> - Safety modification to improve the short field abort and stopping distances of the aircraft through the introduction of improved tires and braking system.</p> <p><b>NACWS Replacement</b> - Safety modification to replace the obsolete and unsupported Naval Aircraft Collision Warning System (NACWS) due to FAA changes in the National Airspace System.</p> <p><b>Ejection Mode Selector</b> - Modifies Interseat Sequencing System (Ejection system) to add two additional modes allowing command ejection authority designated to each seat.</p> <p><b>ASV Regulator/EL Panel</b> - Safety modification addressing excessive force required to breathe utilizing current Anti-Suffocation Valve (ASV). This Correction will solve unconscious aircrew air supply requirements. In addition, a safety modification will replace the current EL Panel to increase the oxygen regulator blinker visibility at night. Deficiency noted during OPEVAL.</p> <p><b>Landing Gear Doors &amp; Bell crank</b> - Structural fixes to gear doors &amp; bell crank to eliminate cracking.</p> <p><b>UWARS Addition to Ejection Seat ALSS</b> - Safety modification to add UWARS to Ejection Seat. Current system lacks UWARS, restricting overwater flight operations.</p> <p><b>Acceptance of Ground Power (ECP-056)</b> - Operational modification to allow acceptance of electric power commercial ground power carts.</p> <p><b>Life Raft Addition to Ejection Seat SEAWARS ALSS</b> - Safety modification to install life raft to ejection seat and incorporate URT-140 radio. Current system lacks raft, restricting overwater flight operations.</p> <p><b>Cockpit Improvements (ECP-058/063)</b> - 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 avionics wire bundles, communication audio volume solutions, nose wheel position/positioning systems and flight instrument display issues.</p> <p><b>Increase Gross Weight</b> - Structural mods to increase weight capacity. Need driven by weight additions for Anti-Skid, Life Raft, Oil Pressure warning system.</p> <p><b>OBOGS Low Pressure Switch</b> - Safety modification to improve OBOGS low pressure switch. In-flight failures have caused numerous aborts.</p> <p><b>Condenser blower motor-longer life</b> - Replace air conditioning blower with longer life, brushless motor, reducing life cycle costs</p> <p><b>Supplemental Oxygen System</b> - Safety modification to increase volume of emergency oxygen. Class A safety board recommendation.</p> <p><b>GPS receiver upgrade-LAAS/WAAS</b> - Operational upgrade to GPS system-allows aircraft to utilize LAAS/WAAS approaches.</p> <p><b>Engine PMU upgrade</b> - Operational modification to fix engine power management unit (PMU) software. Mod required to eliminate hot-start abort conditions.</p> <p><b>ANTI-G valve replacement</b> - Safety modification to improve Anti-G valve with rust resistant valve. Rusty valves have caused numerous in-flight emergencies (loss of pressurization).</p> <p><b>Avionics Obsolescence</b> - Replace various Avionics components due to supplier and/or technical obsolescence.</p> <p><b>Aft Fuselage Structural Upgrade</b> - Add structural components to strengthen the AFT Fuselage to address minor cracks and rivets coming loose and/or breaking in the area of Frame 9 and the Ventral Fins. This is both a safety and maintainability issue.</p> <p><b>Sealed Rudder Position Sensor</b> - Replace the current Rudder Position Sensor which has an excessively high failure rate due to water intrusion into the unit resulting in inaccurate information being provided to the flight data recorder. Erroneous data negatively impacts the structural integrity/FLE monitoring program because rudder position affects tail loading (asymmetric G's) and accident/incident replay and investigation.</p> <p><b>Engine Oil Dipstick and Bottle</b> - Enhance the Engine Oil Dipstick and add a Collection Bottle which will allow a higher total engine oil volume to provide an allowable range for safe operation. This effort is a direct response to a Navy Class B engine incident.</p> <p><b>MFOQA</b> - Improve the flight data recorder, change the data cartridge adapter, and install a larger capacity data storage module (PCM CIA) to allow for participation in the Military Flight Operations Quality Assurance (MFOQA) Program. MFOQA is part of a DoD-wide safety emphasis.</p> <p><b>Emergency Locator Transmitter</b> - DoD mandated installation of a 121.5/406 MHz ELT system in the T-6 to replace the current 121.5/243 MHz emergency beacon.</p> <p><b>Communications Cord/Oxygen Hose</b> - Replace the current T-6 single Line Replaceable Unit (LRU) Communications Cord and Oxygen Hose with a Communications Cord and Oxygen Hose that consists of two (2) separate LRUs.</p> <p><b>Unique Identification (UID)</b> - Per MIL-STD-130M dated 2 Dec 05 and the DoD Unit Identification Guide, each T-6 will be marked with a two-dimensional PDF214 or equivalent machine-readable unique identification (UID).</p> <p><b>Canopy Fracturing Initiation System (CFIS)</b> - Redesign Safety related modification will replace the current T-6 laser system CFIS with an electro-mechanical CFIS that will improve reliability and reduce life-cycle costs.</p> <p><b>Avionics Upgrade Program (AUP)</b> - Upgrade T-6 avionics to include multifunctional displays controlled by two (2) redundant Integrated Avionics Computers (AICs), add a Heads-Up Display (HUD) to the front cockpit, a radar altimeter and additional navigational capability.</p> <p><b>Landing Gear Handle</b> - Safety modification to T-6 Landing Gear Handle to reduce the risk of gear up landings. Effort includes redesign of cams and down-lock solenoid, replacing lights with LEDs and changing Programmable Array Logic to improve voltage thresholds.</p> <p><b>Landing Gear Shimmy</b> - Modify the T-6 Landing Gear to mitigate excessive vibration (shimmy) that has been experienced during landings and takeoffs. No mishaps have occurred to date, but the potential exists.</p> <p><b>Power Control Lever (PCL) Cut-Off</b> - Safety related effort to install a mechanical barrier to PCL to prevent inadvertent engine shutdown (cut-off). Result of Class A safety investigation.</p> <p><b>Structural Improvement</b> - Change structural components to strengthen the T-6 Airframe to address cracks and structural fatigue issues. This is both a safety and maintainability issue.</p> <p><b>Nose wheel Actuator</b> - Replace existing T-6 Nose wheel Actuator with longer life, better sealed actuator, reducing life cycle costs.</p> <p><b>Engine Redesign</b> - Redesign turbine blades, discs, seals, support case and compressor in the T-6 engine to eliminate safety, reliability and maintainability issues, turbine blade crack development and propagation.</p> <p><b>OBOGS Concentrator (-0105 to -0106)</b> - Upgrade current -0105 model Onboard Oxygen Generating System (OBOGS) Concentrator to replace parts that are no longer available due to manufacturing obsolescence. In addition, replace the slide valve to eliminate issues with sticking.</p> <p><b>OPAS Signal Conditioning Unit</b> - Upgrade the Oil Pressure Annunciator System (OPAS) Signal Conditioning Unit (SCU). Upgraded OPAS SCU will take readings from a different point in the engine oil system and use upgraded software to eliminate erroneous "Oil Pressure Low" warning indications in the cockpit.</p> <p><b>Voice Recorder</b> - OPNAV mandated installation of a cockpit voice recording system to provide audio playback capability for investigation and reconstruction of incidents and mishaps.</p> <p><b>Ground Proximity Warning System (GPWS)</b> - Safety of flight issue. OPNAV mandated incorporation of a system that will indicate the proximity of the T-6 aircraft to the ground. GPWS will reduce the potential of an inadvertent ground strike resulting in the possible loss of aircraft and crew.</p> <p><b>Instrument Training Hood</b> - Cockpit instrument training hoods and head/helmet mounted hoods for the T-6 aircraft. Prevents visually obtaining outside references while flying and landing the aircraft.</p> <p><b>AUP Integrated Avionics Computer Upgrade</b> - Upgrade the two (2) Integrated Avionics Computers (IACs) in each T-6 with both hardware and software to provide a power caret indication in the cockpit for setting engine power.</p> <p><b>AUP Spiral I Retrofit</b> - Upgrade the hardware and software in the AUP computer system to provide for increased speed in the Data Transfer System (DTS).</p> <p><b>AUP Spiral II Retrofit</b> - Upgrade the Hardware and software in the AUP computer system to provide solution to conditions that were noted as deficiencies during the T-6B FOT&amp;E.</p>	
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Feb 93 received MS 0 and MSI approval, Aug 95 received MSII and LRIP approval, Dec 01 received MSIII approval, and Navy IOC occurred 4th Qtr FY03.	

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
AFT Fuselage Structural Upgrades	48	*	1	*																49	*
ASV Regulator/EL Panel	98	.3																		98	.3
Acceptance of Ground Power	43	.1																		43	.1
Anti-G Valve	2	*	1	*	1	*			1	*	1	*					46	*		52	*
Avionics Obsolescence			49	*	49	*			49	*	49	*	49	*	49	*	242	4.0		536	4.1
Avionics Upgrade Program											1	.5	1	.5	1	.5	40	21.3		43	22.8
Braking Improvement (Anti-skid)	16	1.9			10	1.4	6	.9	2	.2	1	.1	1	.1	1	.2	6	.9		43	5.6
CFIS Redesign			2	.1	2	.1			2	.1	1	*	1	*	1	*	43	1.4		52	1.7
Cockpit Improvements	74	.4	3	*	6	.1			15	.2										98	.6
Communication Cord/Oxygen Hose			24	.2	4	*							1	*	1	*	22	.2		52	.5
Condenser Blower Motor - Longer Life	1	*	1	*	1	*			1	*	1	*	1	*	1	*	29	.2		36	.3
ENGINE REDESIGN					1	.1			1	.1	3	.2	1	.1	1	.1	59	3.7		66	4.1
Ejection Mode Selector	34	.1	15	.1																49	.2
Emergency Locator Transmitter	49	.1																		49	.1
Engine Oil Dipstick and Bottle	51	*	12	*	14	*											25	*		102	.1
Engine PMU Upgrade			2	*	3	*			3	*	1	*	1	*	1	*	55	.7		66	.8
GPS Receiver Upgrade - LAAS			12	.1	12	.1			6	*	1	*	1	*	1	*	19	.1		52	.3
Increase Gross Weight			14	.1	14	.1			4	*	4	*	1	*	1	*	14	.1		52	.3
LANDING GEAR HANDLE			5	*	5	*			5	*	5	*	5	*	5	*	36	.1		66	.2
LANDING GEAR SHIMMY			5	*	5	*			5	*	5	*	5	*	5	*	36	.2		66	.4
Landing Gear Doors & Bell crank	90	.3	24	.2	4	*											22	.2		140	.7
Life Raft Addition to Ejection Seat ALSS SEAW	24	.3	22	.3	6	.1							1	*	1	*	20	.3		74	1.1
MFOQA	20	.1	30	.2	1	*							1	*	1	*	21	.1		74	.4
MLG Door Tie Rods	18	.1	18	.1	7	*			2	*	2	*	1	*	1	*	25	.1		74	.3
MLG Side brace Redesign	36	.1																		36	.1
NACWS Replacement	16	1.4	18	2.3	6	.6	6	.6									3	.1		49	5.0
NOSE WHEEL ACTUATOR			8	.2	6	.1			4	.1	4	.1	1	*	1	*	19	*		43	.5
Nose Wheel Centering	36	.2																		36	.2
OBOGS Low Pressure Switch	24	.1	24	.1	3	*			1	*										52	.2
OBOGS upgrades (ECP-049)	40	.3																		40	.3
Oil Pressure Warning	49	.2																		49	.2
PCL CUT-OFF			5	*	5	*			5	*	5	*	5	*	5	*	36	*		66	.1
STRUCTURAL IMPROVEMENT			5	*	5	*			5	*	5	*	5	*	5	*	36	.1		66	.3
Sealed rudder Position Sensor	36	*	10	*	6	*														52	*
Supplemental Oxygen System	2	*	3	*	3	*			3	*	3	*	3	*	3	*	32	.2		52	.4
Trim System Redesign	140	.4	10	.1																150	.5
UWARS Addition to Ejection Seat ALSS	6	.1	1	*	1	*							1	*	1	*	64	.9		74	1.1
Unique Identification (UID)	3	.1	4	.1	5	.1			3	.1	1	*	1	*	1	*	34	.8		52	1.2
VHF Radio (Audio Volume)	39	.1																		39	.1
OBOGS Concentrator (-0105 to -0106)					1	*			1	*	1	*	1	*	1	*	42	.6		47	.7
OPAS Signal Conditioning Unit					1	*			1	*	1	*	1	*	1	*	42	.8		47	.8
Voice Recorder					1	*			1	*	1	*	1	*	1	*	140	2.8		145	2.9
Ground Proximity Warning System					1	*			1	*	1	*	1	*	1	*	140	2.8		145	2.9
Instrument Training Hood					1	*			1	*	1	*	1	*	1	*	140	1.4		145	1.5
AUP Integrated Avionics Computer Upgrade					1	*			1	*	1	*	1	*	1	*	93	1.6		98	1.7
AUP Spiral I Retrofit					1	*			1	*	1	*	1	*	1	*	93	2.1		98	2.3
AUP Spiral II Retrofit					1	*			1	*	1	*	1	*	1	*	137	3.4		142	3.6
Installation Kits N/R		.9		.3		*		*		*		*		*		*	2.5			3.7	
Installation Equipment																					
AFT Fuselage Structural Upgrade	28	*																		28	*
ASV Regulator/EL Panel	74	*	14	*																88	.1
Acceptance of Ground Power	43	.1																		43	.1
Anti-G Valve	2	*	1	*	1	*			1	*	1	*					46	*		52	*

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
Avionics Obsolescence			49	*	49	*			49	*	49	*	49	*	49	*	242	*	536	.1	
Avionics Upgrade Program											1	*	1	*	1	*	40	.5	43	.5	
Braking Improvement (Anti-skid)	16	*	9	*	10	*	6	*	2	*	1	*	1	*	1	*	6	*	52	*	
CFIS Redesign			2	*	2	*			2	*	1	*	1	*	1	*	43	*	52	*	
Cockpit Improvements	74	*	3	*	6	*			15	*									98	.1	
Communication Cord/Oxygen Hose			24	*	4	*							1	*	1	*	22	*	52	*	
Condenser Blower Motor - Longer Life	1	*	1	*	1	*			1	*	1	*	1	*	1	*	29	.1	36	.1	
ENGINE REDESIGN					1	*			1	*	3	*	1	*	1	*	59	.3	66	.3	
Ejection Mode Selector	34	*	15	*															49	*	
Emergency Locator Transmitter	49	*																	49	*	
Engine Oil Dipstick and Bottle			12	*	14	*											25	*	51	*	
Engine PMU Upgrade			2	*	3	*			3	*	1	*	1	*	1	*	55	*	66	.1	
GPS Receiver Upgrade - LAAS			12	*	12	*			6	*	1	*	1	*	1	*	19	*	52	*	
Increase Gross Weight			14	*	14	*			4	*	4	*	1	*	1	*	14	*	52	*	
LANDING GEAR HANDLE			5	*	5	*			5	*	5	*	5	*	5	*	36	*	66	*	
LANDING GEAR SHIMMY			5	*	5	*			5	*	5	*	5	*	5	*	36	*	66	*	
Landing Gear Doors & Bell crank	90	.2	12	*	4	*											24	*	130	.2	
Life Raft Addition to Ejection Seat	24	*	7	*	6	*							1	*	1	*	35	*	74	*	
MFOGA	20	*	30	*	1	*							1	*	1	*	21	*	74	*	
MLG Door Tie Rods	18	*	18	*	7	*			2	*	2	*	1	*	1	*	25	*	74	*	
MLG Side brace Redesign	36	.1																	36	.1	
NACWS Replacement	16	*	18	*	6	*	6	*									3	*	49	*	
NOSE WHEEL ACTUATOR			8	*	6	*			4	*	4	*	1	*	1	*	19	*	43	*	
Nose Wheel Centering	36	.3																	36	.3	
OBOGS Low Pressure Switch	24	*	24	*	3	*			1	*									52	*	
OBOGS upgrades (ECP-049)	40	*																	40	*	
Oil Pressure Warning	49	*																	49	*	
PCL CUT-OFF			5	*	5	*			5	*	5	*	5	*	5	*	36	*	66	*	
STRUCTURAL IMPROVEMENT			5	*	5	*			5	*	5	*	5	*	5	*	36	*	66	*	
Sealed Rudder Position Sensor	36	*	10	*	6	*													52	*	
Supplemental Oxygen System	2	*	3	*	3	*			3	*	3	*	3	*	3	*	32	.1	52	.2	
Trim System Redesign	132	*	9	*	9	*													150	*	
UWARS Addition to Ejection Seat	6	*	1	*	1	*							1	*	1	*	64	*	74	.1	
Unique Identification (UID)	3	*	4	*	5	*			3	*	1	*	1	*	1	*	34	*	52	*	
VHF Radio (Audio Volume)	39	.1																	39	.1	
OBOGS Concentrator (-0105 to -0106)					1	*			1	*	1	*	1	*	1	*	42	.1	47	.1	
OPAS Signal Conditioning Unit					1	*			1	*	1	*	1	*	1	*	42	.1	47	.1	
Voice Recorder					1	*			1	*	1	*	1	*	1	*	140	.1	145	.1	
Ground Proximity Warning System					1	*			1	*	1	*	1	*	1	*	140	.1	145	.1	
Instrument Training Hood					1	*			1	*	1	*	1	*	1	*	140	.1	145	.1	
AUP Integrated Avionics Computer Upgrade					1	*			1	*	1	*	1	*	1	*	93	.1	98	.2	
AUP Spiral I Retrofit					1	*			1	*	1	*	1	*	1	*	93	.1	98	.2	
AUP Spiral II Retrofit					1	*			1	*	1	*	1	*	1	*	137	.2	142	.2	
Installation Equipment N/R																				.5	.6
Engineering Change Orders																					
Data																					.1
Training Equipment	15	.1	17	*	26	.1	7	*	30	*	30	*	4	*	4	*	90	.1	223	.4	
Support Equipment																					*
ILS																					.1
Other Support																					.1
Interim Contractor Support																					.1
Installation Cost	995	3.7	328	.6	193	1.6	12	.3	125	.3	101	.2	95	.4	95	.3	1,811	33.0	3,755	40.4	
<b>Total Procurement</b>			<b>12.3</b>		<b>5.2</b>		<b>4.9</b>		<b>1.8</b>		<b>1.5</b>		<b>1.6</b>		<b>1.6</b>		<b>90.0</b>			<b>120.6</b>	

Notes:

1. Totals may not add due to rounding.

2. Asterisk indicates amount less than \$51K.

\*Install kits and equipment quantities differ because those specific airframe kits do not require a corresponding "B kit".

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: T-6A/B MODIFICATION TITLE: JPATS CORRECTION OF DEFICIENCIES( OSIP 011-04)

INSTALLATION INFORMATION: VHF Radio (Audio Volume)/OBOGS Upgrades (ECP-049)/Oil Pressure Warning/ASV Regulator/EL Panel/Ejection Mode Selector/Cockpit Improvements/NACWS Replacement/Avionics Obsolescence/Braking Improvement (Antiskid)/Nose Wheel Centering/MLG Door Tie Rods/MLG Side brace 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/Condenser Blower Motor-Longer Life/Supplemental Oxygen System/GPS Receiver Upgrade-LAAS-WAAS Engine PMU Upgrade/Anti-G Valve/Simulator Mods to Reflect A/C Systems/AFT Fuselage Structural Upgrade/Sealed Rudder Position Sensor/Engine Oil Dipstick and Bottle/MFOQA Landing Gear Handle, Landing Gear Shimmy, PCL Cut-Off, Structural Improvement, Nose Wheel Actuator, Engine Redesign.

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEAD-TIME: 0 Months PRODUCTION LEADTIME: 0 Months

CONTRACT DATES: FY 2009: VARIOUS FY 2010: VARIOUS FY 2011: VARIOUS

DELIVERY DATE: FY 2009: VARIOUS FY 2010: VARIOUS FY 2011: VARIOUS

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (995) kits	995	3.7																		995	3.7
FY 2009 (328) kits			328	0.6																328	0.6
FY 2010 (193) kits					193	1.6														193	1.6
FY 2011 (12) kits							12	0.3												12	0.3
FY 2012 (125) kits									125	0.3										125	0.3
FY 2013 (101) kits											101	0.2								101	0.2
FY 2014 (95) kits													95	0.4						95	0.4
FY 2015 (95) kits															95	0.3				95	0.3
To Complete (1811) kits																	1,811	33.0	1,811	33.0	
<b>TOTAL</b>	<b>995</b>	<b>3.7</b>	<b>328</b>	<b>0.6</b>	<b>193</b>	<b>1.6</b>	<b>12</b>	<b>0.3</b>	<b>125</b>	<b>0.3</b>	<b>101</b>	<b>0.2</b>	<b>95</b>	<b>0.4</b>	<b>95</b>	<b>0.3</b>	<b>1,811</b>	<b>33.0</b>	<b>3,755</b>	<b>40.4</b>	

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	995	82	82	82	82	48	48	48	49	3	3	3	3	31	31	31	32	25	25	25	26
Out	995	82	82	82	82	48	48	48	49	3	3	3	3	31	31	31	32	25	25	25	26

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In	23	23	24	25	23	23	24	25	1811	3755
Out	23	23	24	25	23	23	24	25	1811	3755

Exhibit P-40, BUDGET ITEM JUSTIFICATION							DATE: February 2010						
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/APN-5 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	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total
QTY													
COST (In Millions)	7.1	A	2.0	5.6	8.1		8.1	5.3	5.4	6.8	6.8	77.9	125.0
<p>DESCRIPTION:</p> <p>The specific modifications budgeted and planned are:</p> <p>(1) The Mobile Aircrew Restraint System (MARS) to helicopters and fixed wing aircraft. MARS/CMARS 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/CMARS will be mounted to the aircraft.</p> <p>(2) Installation of new aircrew endurance modifications in legacy ejection seat equipped aircraft due to extended range missions.</p> <p>(3) Installation of new aircrew endurance modifications in non-ejection seat equipped aircraft due to extended range missions.</p> <p>(4) Installation of the Joint Helmet Mounted Cueing System (JHMCS) night mission system compatible electronic packages into tactical aircraft. This will provide the ability to cue and display weapons and sensors at night using Night Vision Devices (NVD) that integrate JHMCS cueing, display symbology, and scene viewed through the NVD.</p>													
(TOA, \$ in Millions)													
<u>OSIP No.</u>	<u>Description</u>	<u>Prior Years</u>	<u>FY2009</u>	<u>FY2010</u>	<u>Base FY2011</u>	<u>OCO FY2011</u>	<u>Total FY2011</u>	<u>FY2012</u>	<u>FY2013</u>	<u>FY2014</u>	<u>FY2015</u>	<u>To Complete</u>	<u>Total</u>
001-07	MARS/CMARS	1.5	0.5	0.7	5.1		5.1	5.3	5.4	6.8	6.8	77.9	110.0
001-08	EJECTION SEAT ENDURANCE	2.4	1.4	1.7									5.6
004-09	NON-EJECTION SEAT ENDURANCE	0.3		1.7	1.5		1.5						3.5
007-10	JOINT HELMET MOUNTED QUEING SYSTEM			1.5	1.5		1.5						3.0
	INACTIVE OSIPs	2.9											2.9
<b>Total</b>		<b>7.1</b>	<b>2.0</b>	<b>5.6</b>	<b>8.1</b>		<b>8.1</b>	<b>5.3</b>	<b>5.4</b>	<b>6.8</b>	<b>6.8</b>	<b>77.9</b>	<b>125.0</b>
<p>Note: OSIP 002-05 CW Detectors removed due to the Army's Joint Chemical Agent Detector Second Generation (JCADII) being placed back to S&amp;T. The joint program office has determined that the JCADII system is not an acceptable replacement to current detectors.</p>													

Exhibit P-3a

Individual Modification

MODIFICATION TITLE: MARS/CMARS (OSIP 001-07)

MODELS OF SYSTEMS AFFECTED: C-130, CH-53D/E, H-60R/S, MH-53E, MV-22B, UH-1Y TYPE MODIFICATION: SAFETY

DESCRIPTION/JUSTIFICATION: Safety initiative to replace the existing mobile crewmember safety belt with the Mobile Aircrew Restraint System (MARS). The new MARS design increases crash survivability by providing improved aircrew restraint with the cabin through the use of acceleration force and velocity sensitive locking mechanism and crewmember harness. The MARS retractor systems and associated aircraft installation modifications will be procured and provided to NAVAIRSYSCOM by the PMA 202 office. For MH-60R MARS has no "A" kit install. The "B" Kit bolt into red ring holes that are part of the aircraft baseline.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Milestone C for CMARS installation in large cabin a/c planned for 1st QTR FY11

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
C-130T Install (A-kits)																	22	0.7	22	0.7	
MH-60R Install (A-kits)									8	0.1	5	0.1	8	0.1	5	0.1	87	1.1	113	1.4	
CH-53E Install (A-kits)							8	0.5	4	0.2	5	0.3	6	0.4	4	0.2	119	7.7	146	9.3	
MH-53E Install (A-kits)							8	0.5	4	0.3	5	0.3	7	0.5	4	0.3				28	1.8
CH-53D Install (A-kits)																	34	1.8	34	1.8	
MH-60S Install (A-kits)											8	0.1	8	0.1	5	0.1	189	2.4	210	2.7	
MV-22B Install (A-kits)															6	0.2	224	7.2	230	7.4	
UH-1Y Install (A-kits)													8	0.1	5	0.1	71	1.4	84	1.6	
Installation Kits N/R							1.5		1.5		1.6		1.6		1.6						7.9
FOT&E							0.1		0.1		0.1		0.1		0.1						0.6
Installation Equipment																					
C-130T Equip (5 per a/c)																	22	0.5	22	0.5	
MH-60R Equip (2 per a/c)									8	0.1	5	*	8	0.1	5	*	87	0.7	113	0.9	
CH-53E Equip (10 per a/c)							8	0.3	4	0.2	5	0.2	6	0.2	4	0.2	119	5.1	146	6.1	
MH-53E Equip (11 per a/c)							8	0.3	4	0.2	5	0.2	7	0.3	4	0.2				28	1.2
CH-53D Equip (10 per a/c)																	34	1.3	34	1.3	
MH-60S Equip (2 per a/c)										8.0	0.1	8	0.1	5	*	189	1.6	210	1.8		
MV-22B Equip (5 per a/c)															6	0.1	224	4.8	230	4.9	
UH-1Y Equip (3 per a/c)													8	0.1	5	0.1	71	0.9	84	1.1	
AIRSAVE Interface							0.3		0.5		0.4		0.5		0.7		0.6		10.1		13.0
Installation Equipment N/R																					
Engineering Change Orders										0.2		0.3		0.7		0.7		7.2			10.1
Data										0.2		0.2		0.2		0.2					0.9
Training Equipment										*		*		*		*					*
Support Equipment																					
ILS										0.1		0.1									0.2
Other Support										0.9		0.9		1.0		1.0		4.3			10.8
Interim Contractor Support																					
Installation Cost										16	0.8	16	0.5	23	0.7	37	1.0	77.5	19.0	867	22.0
<b>Total Procurement</b>										<b>5.1</b>		<b>5.3</b>		<b>6.8</b>		<b>6.8</b>		<b>77.9</b>			<b>110.0</b>

Notes:

- Totals may not add due to rounding
- Asterisk indicates amount less than \$51K
- T/M/S CH53-D aircraft added to the CMARS program increasing the "To Complete" quantities by 34 kits.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: C-130, CH-53D/E, H-60R/S, MH-53E, MV-22B, UH-1Y      MODIFICATION TITLE: MARS/CMARS (OSIP 001-07)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: \_\_\_\_\_ **DEPOT CONTRACTOR** \_\_\_\_\_

ADMINISTRATIVE LEADTIME: \_\_\_\_\_ Varies \_\_\_\_\_ Months      PRODUCTION LEADTIME: \_\_\_\_\_ Varies \_\_\_\_\_ Months

CONTRACT DATES:      FY 2009: \_\_\_\_\_ N/A \_\_\_\_\_      FY 2010: \_\_\_\_\_ N/A \_\_\_\_\_      FY 2011: \_\_\_\_\_ N/A \_\_\_\_\_

DELIVERY DATE:      FY 2009: \_\_\_\_\_ N/A \_\_\_\_\_      FY 2010: \_\_\_\_\_ N/A \_\_\_\_\_      FY 2011: \_\_\_\_\_ N/A \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY ( ) kits																					
FY 2009 ( ) kits																					
FY 2010 ( ) kits																					
FY 2011 (16) kits										16	0.8									16	0.8
FY 2012 (16) kits												16	0.5							16	0.5
FY 2013 (23) kits														23	0.7					23	0.7
FY 2014 (37) kits																37	1.0			37	1.0
FY 2015 (29) kits																		29	0.6	29	0.6
To Complete (746) kits																		746	18.4	746	18.4
<b>TOTAL</b>										16	0.8	16	0.5	23	0.7	37	1.0	775	19.0	867	22.0

Installation Schedule

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
	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	4	4	4	4	4
Out													4	4	4	4	4	4	4	4	4

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In	6	6	6	5	10	9	9	9	775	867
Out	6	6	6	5	10	9	9	9	775	867

Exhibit P-3a

Individual Modification

MODIFICATION TITLE: NON-EJECTION SEAT ENDURANCE( OSIP 004-09 )

MODELS OF SYSTEMS AFFECTED: H-53, UH-1, AH-1, H-60B/F/R, MV-22, E-2, TH-57, C-2A TYPE MODIFICATION: SAFETY

DESCRIPTION/JUSTIFICATION: Introduce new cushion systems into "non-ejection" aircraft with phase changing textiles to reduce-eliminate significant aircrew fatigue due to longer mission requirements. There are no installation costs because the seat cushions are just being replaced.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Milestone C is planned for 4th QTR FY10.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
Installation Kits N/R																					
Installation Equipment																					
H-53 Equip (2 per a/c)					482	0.5													482	0.5	
UH-1 Equip (2 per a/c)					202	0.2													202	0.2	
AH-1 Equip (2 per a/c)					374	0.4													374	0.4	
H-60 Equip (2 per a/c)					274	0.3	334	0.4											608	0.7	
MV-22 Equip (2 per a/c)							384	0.4											384	0.4	
E-2 Equip (2 per a/c)							386	0.4											386	0.4	
TH-57 Equip (2 per a/c)																					
C-2A Equip (2 per a/c)							78	0.1											78	0.1	
Installation Equipment N/R		0.3																			0.3
Engineering Change Orders																					
Data																					
Training Equipment																					
Support Equipment																					
ILS								0.1													0.1
Other Support						0.2	0.1														0.4
Interim Contractor Support																					
Installation Cost																					
<b>Total Procurement</b>		<b>0.3</b>				<b>1.7</b>	<b>1.5</b>														<b>3.5</b>

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than \$51K

Exhibit P-3a

Individual Modification

MODIFICATION TITLE: JOINT HELMET MOUNTED CUEING SYSTEM (OSIP 007-10)

MODELS OF SYSTEMS AFFECTED: F/A-18 A+, C, D, E, F, EA-F18G TYPE MODIFICATION: OPERATIONAL CAPABILITY IMPROVEMENT

DESCRIPTION/JUSTIFICATION:

JHMCS night mission system compatible electronics packages for tactical aircraft. This product group results in the integration of night vision and cueing capability. The result allows rapid off-boresight target acquisition during night operations and reduces warfighter/platform risk exposure in a threat environment.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Engineering Change Proposal (ECP) plan was completed 4th QTR FY09

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
Installation Kits N/R																					
Installation Equipment																					
F/A-18 Equip					320	1.5	19	1.5												339	3.0
Installation Equipment N/R																					
Engineering Change Orders																					
Data																					
Training Equipment																					
Support Equipment																					
ILS																					
Other Support																					
Interim Contractor Support																					
Installation Cost																					
<b>Total Procurement</b>					<b>320</b>	<b>1.5</b>	<b>19</b>	<b>1.5</b>												<b>339</b>	<b>3.0</b>

Notes:

1. Funding provided to upgrade legacy electronics boxes in the F/A-18 aircraft that are not compatible with the JHMCS System. Qty of 320 piece parts in FY10 equal to 19 EU installation aircraft kits.

Exhibit P-40, BUDGET ITEM JUSTIFICATION							DATE: February 2010						
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/APN-5 Aircraft Modifications							P-1 ITEM NOMENCLATURE 057600, Common ECM Equipment						
Program Element for Code B Items:							Other Related Program Elements						
	Prior Years	ID Code	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total
QTY		A											
COST (In Millions)	850.6	A	231.0	309.7	21.9	38.7	60.6	84.8	113.5	113.8	132.1	1308.4	3204.5
<p><b>DESCRIPTION:</b>                      This line item funds common Electronic CounterMeasures (ECM) 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 protection capability devices to applicable user aircraft.</p> <p>72-88 AAR-47: FY09 Overseas Contingency Operations (OCO) supplemental and FY10 OCO supplemental will fund procurement of 950 AAR-47 B(V)2 retrofit kits.</p> <p>14-90 AN/APR-39(V)2: FY10 supplemental funding will complete the class I Engineering Change Proposal (ECP) and cover deferred tasks, which includes (8) first-article shipsets for testing, APR-39 / AAR-47 software refinement, follow on test and evaluation (FOT&amp;E) to validate solutions and platform test and integration to support all current Radar Warning Receiver (RWR) and Assault platforms using Aircraft Survivability Equipment (ASE).</p> <p>06-00 ALE-39 to 47 Retrofit: FY09/FY10 OCO funds were also provided to procure AN/ALE-47 breach plates for CH-46, MV-22 and F/A-18 C/D lots 18-21 to provide more reliable countermeasures dispensing and ensure accurate onboard inventory reporting. FY-10 OCO funding is provided for additional dispensers/pods to increase mission duration and survivability for CH-53D/E. The FY10 OCO funds will provide for the procurement of additional production CH-53 Dual Dispenser Pods and the Non-Recurring Engineering/installation to increase the expendables capacity from 120 to 240. FY10 OCO funding is also provided to procure new AN/ALE-47 Test Sets (ALM-290) for F/A-18C/D, MV-22, HH-60 and P-3 to replace original version ALM-286 Test Sets that cannot declare ALE-47 as full mission capable due to the limitations of older system design.</p> <p>05-08 DIRCM: This OSIP will provide currently available technology improvements to survivability to USMC aircraft operating in support of Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF). FY2009 through FY2011 OCO funding will be used to procure A-Kits and B-kits, along with program support.</p> <p>13-09 ALQ-144: The AN/ALQ-144A is an active Infrared (IR) Jammer Counter Measures (CM) set which provides protection for helicopters against surface-to-air and air-to-air IR homing type missiles. IR Man Portable Air Defense System (MANPADS) present the greatest threat to Marine and Navy aircrew survivability and mission accomplishment while operating in Operation Iraqi Freedom (OIF). These Infrared Counter Measure (IRCM) systems provide much needed protection against the threats encountered provided the systems are operational and available.</p> <p>11-11 UC-35D ASE "A" kits is a Southwest Asia Marine Expeditionary Force (MEF) Commanders lack light Operational Support Aircraft (OSA) lift assets capable of operating in threat Surface To Air Missile (SAM) environments of Southwest Asia (i.e. Iraq, Afghanistan).</p>													
(TOA \$ in Millions)													
<b>OSIP No.</b>	<b>Description</b>	<b>Prior Years</b>	<b>FY2009</b>	<b>FY2010</b>	<b>Base FY2011</b>	<b>OCO FY2011</b>	<b>Total FY2011</b>	<b>FY2012</b>	<b>FY2013</b>	<b>FY2014</b>	<b>FY2015</b>	<b>Complete</b>	<b>Total</b>
72-88	AN/AAR-47 Detection	335.5	38.5	50.4									424.4
14-90	AN/APR-39(V)2	202.9	0.5	4.7									208.1
06-00	ALE-39 to 47 Retrofit	118.1	7.0	30.3	2.1		2.1	6.2	5.8	5.6		11.5	186.7
07-03	IDECM	166.8	40.4	41.9	19.8		19.8						268.9
14-06	ALQ-157	3.0	0.3										3.3
05-08	DIRCM	24.3	142.3	182.4		35.0	35.0	9.7	3.5	3.4		54.0	454.6
13-09	ALQ-144		1.9										1.9
11-11	UC-35D ASE "A" Kits					3.7	3.7						3.7
04-12	Common On-Board Jammer							68.9	76.0	85.6	90.8	140.7	462.1
03-13	JATAS								28.3	19.1	41.2	1102.1	1190.8
	DAWDF Realignment		0.1										0.1
<b>Total</b>		<b>850.6</b>	<b>231.0</b>	<b>309.7</b>	<b>21.9</b>	<b>38.7</b>	<b>60.6</b>	<b>84.8</b>	<b>113.5</b>	<b>113.8</b>	<b>132.1</b>	<b>1308.4</b>	<b>3204.5</b>

Note: Totals may not add due to rounding.

Exhibit P-3a Individual Modification

MODIFICATION TITLE: AN/AAR-47 DETECTION (OSIP 072-88 )  
 AH-1W/Z, UH-1N/Y, CH-53D/E, HH-60H, SH-60B, MH-60R/S, P-3/P-3AIP  
 MODELS OF SYSTEMS AFFECTED: KC-130F/R/T/J, CH-46E, MV-22 TYPE MODIFICATION: MISSION CAPABILITY

DESCRIPTION/JUSTIFICATION:  
 The AN/AAR-47 warns of approaching missiles by detecting radiation associated with rocket motors 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 and interfaces directly to the ALE-39/47 countermeasures dispenser. Without the AAR-47, helicopters and fixed wing aircraft have no capability to detect an infrared missile attack. Current deployed system has performance limitations in certain OCO operating environments; the ECP supports USMC Urgent Need Statement (UNS) #03606UC. FY 09 and FY10 OCO supplemental funding will complete the Engineering Change Proposal (ECP) and improve Missile Warning capabilities in support of Urgent Needs Statement USN #03606UC for USN/USMC Assault Aircraft. Fielded Missile Warning System (MWS) has performance limitations in certain OCO operational environments. USN/USMC assault aircraft will continue to be susceptible to the Man-portable Air Defense (MANPAD) threat in certain operating environments.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:  
 Milestone II was passed in 1982. OPEVAL (on the CH-53E) was passed in October 1986. Milestone III was passed in May 1987 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 awarded to Hercules (now Alliant) in December 1991. Actual orders were for 1122 systems with deliveries completed in January 1997. Under full and open competition, a contract for up to 1077 systems was awarded to Lockheed Martin in September 1995. Deliveries began in January 1997 and were completed in July 1999. There are two upgrade programs: The Computer Processor Microprocessor upgrade program FY97-FY99 replaced the 8086 MP board with an MP 80486 Board with new software to enhance threat declaration and to better control false alarms. The Second Upgrade; AAR-47(V)2 Sensor upgrade, contained two phases; Phase one upgraded the UV sensors with a solid state spectral filter assembly with embedded Laser warning capability. Phase two incorporated a Class I Sensor ECP (Dynamic Blanking) which upgraded the AAR-47(V)2 Sensors to the AAR-47A(V)2 sensor design. Due to the current operational environment a third Sensor Class I ECP is required which improves probability of detection in the current theaters of operation. The FY07 Supplemental funded the procurement of 5 First Article Test units for USMC/USN/USAF Operational Assessment and the accelerated development of a Class I ECP for AAR-47B(V)2 for multiple T/M/S and delivery of 300 PDX upgrade kits consisting of four sensors and one CP unit. This is an O-level replacement with the existing sensors being sent to the contractor, upgraded and then sent back to the fleet. The AAR-47B(V)2 was reached IOC status in October 2008. Congressional Add funds provided in FY08 funded the Operational Flight Software for the Hostile Fire Indication Capability. FY09 OCO supplemental and FY10 OCO supplemental will fund procurement of 950 AAR-47 B(V)2 retrofit kits.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
AAR-47B(V)2 Retrofit Kits (OCO)			320	19.5	630	37.7													950	57.2	
Installation Kits N/R																					
Installation Equipment																					
Sensor Upgrade Equip	1,836	53.8																	1836	53.8	
Sensor Upgrade Equip (OCO)				2.3																	2.3
FY05 SUP (CP Upgrade Equip)	1	0.3																		1	0.3
FY05 SUP (Sensor Upgrade Equip)	98	3.7																	98	3.7	
FY06 Title 9 Sup (Dynamic Blk)	4	8.1																	4	8.1	
FY07 Title 9 Sup (PDX)		30.2																			30.2
AAR-47 INSTALL EQUIP	1,250	90.2																	1250	90.2	
Title 9 Sup (Sensor Upgrade)	151	11.3																	151	11.3	
FY10 Cong Add (CP Upgrade Equip)					2.0																2.0
Installation Equipment N/R		24.6																			24.6
Engineering Change Orders																					
CP UPGRADE EQUIP ECO		7.7																			7.7
Dynamic Blanking ECO		1.9																			1.9
FY05 Sup Dynamic Blanking ECO		8.9																			8.9
Title 9 Sup Dynamic Blanking		0.6																			0.6
FY07 Sup PDX Upgrade Kit	300	18.8																	300	18.8	
CDP Phase 2		2.4																			2.4
CDP Phase 3 (OCO)				1.0																	1.0
FY08 Cong Add Hostile Fire Operational Flight SW		4.0																			4.0
FY09 Cong Add Hostile Fire Operational Flight SW																					
Modular Non-volatile Selectable Storage Recorder (OCO)				2.6																	2.6
UMP Rehosting (OCO)				2.0		3.0															5.0
FY10 Cong Add Hostile Fire Indicator						2.0															2.0
Data		1.8																			1.8
Training Equipment		0.6																			0.6
Support Equipment		8.6																			8.6
Support Equipment (OCO)																					
Background Data Recording Card (OCO)				2.5																	2.5
ILS		5.7																			5.7
ILS (OCO)				1.2																	1.2
Other Support		50.5																			50.5
Other Support (OCO)		1.8		3.3		5.7															10.8
Other Support (CONG ADD)				4.0																	4.0
Interim Contractor Support																					
Installation Cost																					
<b>Total Procurement</b>		<b>335.5</b>		<b>38.5</b>		<b>50.4</b>															<b>424.4</b>

Notes:  
 1. Totals may not add due to rounding.  
 2. Asterisk indicates amount less than \$51K.

Exhibit P-3a Individual Modification

MODIFICATION TITLE: ALE-39 TO ALE-47 RETROFIT (OSIP 006-00)  
CH-53E, EA-6B, AH-1W, CH-46E, UH-1N,

MODELS OF SYSTEMS AFFECTED: CH-53D, MH-53D, F/A-18C/D, AV8B, MV-22, KC-130FRT, HH60, P-3 TYPE MODIFICATION: MISSION CAPABILITY

DESCRIPTION/JUSTIFICATION:

The replacement of the AN/ALE-39 Dispenser System with the AN/ALE-47 will correct serious safety problems and greatly improve aircraft survivability. As a joint program, USD (AT&L) memo of November 1986 directed U.S. Navy and U.S. Army to participate in the USAF Engineering Manufacturing Development (EMD) phase. Requirements were established by USAF Statement of Operational Requirements Document (SOR) number 341.88-II-D of 8 July 92. OSIP 006-00 was initially established for the retrofit of multiple Type/Model/Series (TMS), but operational requirements in support of Overseas Contingency Operations (OCO) resulted in accelerated installs and additional aircraft being identified for retrofit incorporation with FY-04/05 OCO Supplemental funds. FY07/08 OCO Supplemental funds added a PowerPC processor upgrade and additional dispenser pods for increased capacity and forward firing capability on assault platforms. FY-09 - 14 provides funding for retrofit installation of AN/ALE-47 on F/A-18/C/D aircraft lots 12-17. FY09/FY10 OCO funds were also provided to procure AN/ALE-47 breech plates for CH-46, MV-22 and F/A-18 C/D lots 18-21 to provide more reliable countermeasures dispensing and ensure accurate onboard inventory reporting. FY10 OCO funding is provided for additional dispensers/pods to increase mission duration and survivability for CH-53D/E. The FY10 OCO funds will provide for the procurement of additional production CH-53 Dual Dispenser Pods and the NRE/installation to increase the expendables capacity from 120 to 240. FY-10 OCO funding also provides procurement of new AN/ALE-47 Test Sets (ALM-290) for F/A-18C/D, MV-22, HH-60 and P-3 to replace original version ALM-286 Test Sets that cannot declare ALE-47 as full mission capable due to the limitations of older system design.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

The AN/ALE-47 system is in production and being installed in multiple U.S. Navy, USMC and USAF aircraft. MS III decision awarded March 1993. Production system components are being procured under Air Force contract FA8540-06-D-0002 awarded 02 November 2006, NAWC AD contract N00421-07-C-0105 for additional single pods and NAVAIR contract N00019-05-G-0008 for additional dual dispenser pods.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total																		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$																	
RD1&E																																					
PROCUREMENT																																					
Installation Kits																																					
AV8 Kit		48		0.9																48	0.9																
EA6B Kit		35		0.3																35	0.3																
CH-53 "A" Kit OCO						372		7.1												372	7.1																
F/A-18 "A" Kit				17		0.7				9		0.4		42		1.8		38		1.7		33		1.5				75		3.4		214		9.4			
"A" Kit		1,850		12.7																										1,850		12.7					
Installation Kits N/R		10		5.3																										10		5.3					
CH-53D/E Val/Ver A Kits OCO							4		0.2																					4		0.2					
CH-53D/E Val/Ver B Kits OCO							4		0.2																					4		0.2					
F/A-18 Val/Ver				4		0.3																								4		0.3					
Installation Equipment																																					
GWOT FY05 Spp (Install Equip) B Kits		266		3.0																											266		3.0				
Install Equip (39 Sequencer Switches)		1		2.0																											1		2.0				
CH-53 "B" Kit OCO							372		14.8																						372		14.8				
F/A-18 "B" Kit				14		0.5				9		0.4		42		1.7		38		1.6		33		1.4					75		3.2		211		9.0		
Breech Plates (OCO)				1,564		2.4																								1,564		2.4					
TACAIR/HELOS Equip		2,770		50.9																											2,770		50.9				
Title 9 Supplemental (Install Equip)		7		5.6																										7		5.6					
Installation Equipment N/R																																					
Engineering Change Orders																																					
Equip ECO				0.8																															0.8		
Data				0.1																															0.1		
Training Equipment				3.2																															3.2		
Support Equipment				5.7																															5.7		
F/A-18 ALM-290				0.3					0.1				0.2				0.2													0.6					1.8		
F/A-18 ALM-290 OCO																																					
ILS				1.3																															1.3		
ILS (OCO)									0.7																										0.7		
Other Support				22.5					3.0				0.3				0.8																		1.2		30.0
Other Support (OCO)									4.3																										4.3		
Interim Contractor Support																																					
Installation Cost		860		3.6		4		0.2		17		0.8		9		0.5		30		1.5		38		1.6		45		1.9		75		3.1		1,078		13.0	
Installation Cost (OCO)									1.9				114				74																	188		1.9	
<b>Total Procurement</b>				<b>118.1</b>		<b>7.0</b>		<b>30.3</b>		<b>2.1</b>		<b>6.2</b>		<b>5.8</b>		<b>5.6</b>												<b>11.5</b>					<b>186.7</b>				

Notes:

1. Totals may not add due to rounding.
2. Asterisk indicates amount less than \$51K.



Exhibit P-3a Individual Modification

MODIFICATION TITLE: INTEGRATED DEFENSIVE ELECTRONIC COUNTERMEASURE (IDECM) RADIO FREQUENCY COUNTERMEASURE (RFCM)( OSIP 007-03 )

MODELS OF SYSTEMS AFFECTED: F/A-18E/F TYPE MODIFICATION: MISSION CAPABILITY

DESCRIPTION/JUSTIFICATION:

IDECM RFCM consists of an Onboard Electronic Countermeasure Set, an Electronic Frequency Converter (EFC), an Improved Multi Platform Launch Controller (IMPLC) and Fiber Optic Towed Decoy (FOTD) that improves the survivability of aircraft against modern Radio Frequency (RF) threats. The IDECM RFCM Operational Requirements Document (ORD) numbers are 494-88-98, 624-78-03 AND 730-88-07. Current IDECM RFCM configurations are: Block 1 (IB-1) consisting of the ALQ-165 and ALE-50 (AAED); IDECM Block 2 (IB-2) consisting of the ALQ-214 and the ALE-50 (AAED); IDECM Block 3 (IB-3) consisting of ALQ-214, the ALE-55 (FOTD), and the EFC. The EFC enables dataflow via the fiber optic cable to the decoy. This Operational Safety Improvement Program is for the onboard portion of the IDECM Blocks 2 and 3 configuration.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

IDECM Block 2 received MS III approval in January 2004. Full Rate Production contracts 1-6 were awarded in FY04-FY09 respectively. Annual production contract awards are expected to continue. A total of 85 ALQ-214s are planned for procurement via OSIP 007-03. A total of 166 ALQ-214s are planned for procurement via the Common On-Board Jammer OSIP 04-12. A FY09 congressional add provided funds for an ALQ-214 phased depot stand-up focused on system/verification testing and repair of Weapon Repairable Assemblies (WRAs) and Shop Repairable Assemblies (SRAs).

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
Installation Kits N/R																					
Installation Equipment																					
ALQ-214	65	111.8	9	15.8	8	18.0	3	6.9												85	152.6
EFC	11	5.6	14	2.5	53	9.7	22	4.0												100	21.9
IMPLC Retrofit Kits			580	2.1																580	2.1
Installation Equipment N/R		3.3		1.4																	4.7
Engineering Change Orders		1.8																			1.8
Data		0.1																			0.1
Training Equipment																					
Support Equipment																					
ILS		1.2		0.4				0.2													1.8
Other Support		43.0		18.1		14.2		8.7													84.0
Interim Contractor Support																					
Installation Cost																					
<b>Total Procurement</b>		<b>166.8</b>		<b>40.4</b>		<b>41.9</b>		<b>19.8</b>													<b>268.9</b>

Notes:  
1. Totals may not add due to rounding.

Exhibit P-3a Individual Modification

MODIFICATION TITLE: AN/ALQ-157A(V) INFRARED COUNTERMEASURES (OSIP 014-06)

MODELS OF SYSTEMS AFFECTED: CH-46E, CH-53D, KC-130T AND KC-130J TYPE MODIFICATION: MISSION CAPABILITY

DESCRIPTION/JUSTIFICATION:

In the late 1970's and early 1980's, the AN/ALQ-157 was developed and qualified in order to provide protection to heavy/medium lift helicopters and KC130's from infrared guided missiles. The system was produced and deployed from the mid 1980's through 1992. During the initial deployments in 1991 several failures were identified that impacted the mission readiness of the employing platforms.. The ALQ-157 is an IR Jammer in use on the CH-46, CH-53D/E and the KC-130. This system requires the completion of ongoing upgrade initiatives and Technical logistics support by the Original Equipment Manufacturer. On going upgrade initiatives include the installation of carrying handles and air filter cover modification kits on the transmitters of the AN/ALQ-157A(V)1 System. The addition of the carrying handles will improve transmitter handling/installation and help prevent accidental damage to the transmitter's W3 cable. The modification of the air filter cover will improve accessibility for the replacement of the air filter. The Control Power Supply(CPS) upgrade kit consists of a replacement Microprocessor Card that when installed allows recovery of the elapse time of a transition from the "OFF" to "STANDBY" position after power interrupts of less the 5 seconds. This allows for a more efficient and more rapid operation of the ALQ-157 system.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

The reliability and maintainability upgrade was initiated in 2004 in order to address the reliability issues caused by the identified failures in support of Operation Enduring Freedom and Operation Iraqi Freedom. Also addressed were parts obsolescence issues with the high failure rate items that would severely impact the ability to maintain the system in operating condition

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
Air Filter Kits			175	*																175	*
Handle Kits			175	*																175	*
CPS Upgrade Kit			20	0.1																20	0.1
Installation Kits N/R																					
Installation Equipment	6	1.8																		6	1.8
Installation Equipment N/R																					
Engineering Change Orders																					
Data																					
Training Equipment		0.2																			0.2
Support Equipment		0.8																			0.8
ILS (OCO)				0.2																	0.2
Other Support (OCO)																					
Interim Contractor Support		0.2																			0.2
Installation Cost																					
<b>Total Procurement</b>		<b>3.0</b>		<b>0.3</b>																	<b>3.3</b>

Notes:

1. Totals may not add due to rounding.
2. Asterisk indicates amount less than \$51K.

Exhibit P-3a Individual Modification

MODIFICATION TITLE: DIRECTED INFRARED COUNTERMEASURE( OSIP 005-08 )

MODELS OF SYSTEMS AFFECTED: CH-53D/E,CH46E TYPE MODIFICATION: MISSION CAPABILITY

**DESCRIPTION/JUSTIFICATION:**

Urgent Overseas Contingency Operations (OCO) requirement to provide aircraft survivability against Infrared Surface-to-Air Missile (IR SAM) threats for USN/USMC rotary wing aircraft in support of Operation Iraqi Freedom and Operation Enduring Freedom. The funding from FY2008-2011 is for the A kit and B kit procurement of a Directed Infrared Countermeasure (DIRCM) capability until the next generation DIRCM is produced. Current USMC operations require improved IRCM capability against the Man-portable Air Defense Systems (MANPADs) threat. This upgrade will provide improved Missile Warning System (MWS) and IRCM performance in current theaters of operation. The upgrade incorporates improved detection capability and increased countermeasure response in a multi-target and high clutter environments.

The Department of the Navy, Large Aircraft Infrared Countermeasures (DON LAIRCM) System (B-KIT) consists of 5 Components: Missile Warning Sensor (5 ea), Processor (1 ea), Guardian Laser Transmitter Assembly (GLTA) (2 ea), Controller Interface Unit (CIU)(1 ea), and Viper Laser (2 ea). FY2011 OCO funding will be used to procure DON LAIRCM A-Kits and B-kits, along with program support.

**DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:**

The MS C/ Full Rate Production decision for DoN LAIRCM is scheduled for 1st QTR FY10. Don LAIRCM provides a cost effective solution to the Infra-Red (IR) threat with limited ability to distinguish non-threat from threat energy in high clutter environments. FY 2005 Supplemental funds enabled an analysis of a current Generation I MWS with current countermeasure dispense techniques as compared to Generation II MWS. Directed IR Countermeasures (DIRCM) system CH-53 Technology Assessment Program (TAP) used FY 2007 Supplemental funds to develop and purchase the Airframe Changes (AFC) A-Kit and B-Kit test articles. The Analysis of Alternatives (AOA) for the Assault DIRCM program was completed in July 2007. This program demonstrated the improved capability and mitigated deficiencies using the next generation system incorporating improved MWS with advanced DIRCM solution. The DoN LAIRCM effort is a pre-milestone C program with an Initial Operational Capability date of May 2009. This OSIP will provide currently available technology improvements to survivability to USMC aircraft operating in support of OIF and OEF. FY2009 through FY2011 OCO funding will be used to procure A-Kits and B-kits, along with program support.

**FINANCIAL PLAN: (TOA, \$ in Millions)**

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
Installation Kits (A) Kits									8	6.0									8	6.0	
Installation Kits (A Kits) OCO			16	12.7	31	12.6													47	25.4	
Installation Kits (A Kits) FY11 OCO							12	12.7											12	12.7	
Installation Equipment																					
DIRCM CH-53	7	20.3			1	2.3											5	12.5	13	35.1	
Install Equipment OCO			35	82.0	48	129.6													83	211.6	
Install Equipment FY11 OCO							9	19.3											9	19.3	
Engineering Change Orders				1.7		*			0.6									37.0		39.3	
Engineering Change Orders OCO				6.7		18.3														25.0	
Data				0.5															0.2	0.7	
Training Equipment				*															0.2	0.2	
Support Equipment					0.9														0.3	1.2	
ILS		1.0		6.7															0.8	8.5	
ILS OCO				1.0		2.0														3.0	
Other Support		3.0		15.6		0.3			3.1		3.5		3.4					3.0		31.8	
Other Support OCO				10.5		13.9														24.4	
Other Support FY11 OCO							3.0													3.0	
Interim Contractor Support																					
Installation Cost																					
Installation Cost OCO				4.0	10	3.4	35													45	7.4
<b>Total Procurement</b>		<b>24.3</b>		<b>142.3</b>		<b>182.4</b>		<b>35.0</b>	<b>9.7</b>		<b>3.5</b>		<b>3.4</b>				<b>54.0</b>			<b>454.6</b>	

Notes:

1. Totals may not add due to rounding.
2. Asterisk indicates amount less than \$51K.
3. FY2009 OCO will support procurement and installation of CH-46 A-Kits. Installs - FY10 -(qty 6), FY11 (qty 10).
4. FY2010 OCO will support procurement and installation of CH-46 A-Kits. Installs - FY10 - (qty 4), FY11 - (qty 6).
5. FY2010 OCO will support procurement and installation of CH-53E A Kits. Installs - FY11 - (qty 19).
6. 2 Val/Ver Kits procured in FY 2010.

Exhibit P-3a  
**CH-46** MODIFICATION TITLE: DIRECTED INFRARED COUNTERMEASURE( OSIP 005-08 )  
 MODELS OF SYSTEMS AFFECTED:  
 INSTALLATION INFORMATION: Field Mod Teams/Fleet Readiness Center East  
 METHOD OF IMPLEMENTATION:  
 ADMINISTRATIVE LEADTIME: \_\_\_\_\_ Months PRODUCTION LEADTIME: \_\_\_\_\_ Months  
 CONTRACT DATES: FY 2009: Nov-09 FY 2010: Jun 2010 (6 EA Recurring) FY 2011: \_\_\_\_\_  
 DELIVERY DATE: FY 2009: May-10 FY 2010: Oct 2010 (6 EA Recurring) FY 2011: \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY ( ) kits																					
FY 2009 (16) kits			4.0		6		10													16	4.0
FY 2010 (10) kits					4	1.5	6													10	1.5
FY 2011 ( ) kits																					
FY 2012 ( ) kits																					
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete ( ) kits																					
<b>TOTAL</b>			<b>4.0</b>		<b>10</b>	<b>1.5</b>	<b>16</b>													<b>26</b>	<b>5.5</b>

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In						3	2	5	8	6	2										
Out							3	2	5	8	6	2									

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										26
Out										26

Exhibit P-3a

CH-53E

MODIFICATION TITLE: DIRECTED INFRARED COUNTERMEASURE( OSIP 005-08 )

MODELS OF SYSTEMS AFFECTED:

INSTALLATION INFORMATION:

Field Mod Teams

METHOD OF IMPLEMENTATION:

4 Months

PRODUCTION LEADTIME: 12 Months

ADMINISTRATIVE LEADTIME:

FY 2009: \_\_\_\_\_ FY 2010: Jan-10 FY 2011: \_\_\_\_\_

CONTRACT DATES:

FY 2009: \_\_\_\_\_ FY 2010: Jan-11 FY 2011: \_\_\_\_\_

DELIVERY DATE:

\$ in Mil

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY ( ) kits																					
FY 2009 ( ) kits																					
FY 2010 (19) kits					1.9		19													19	1.9
FY 2011 ( ) kits																					
FY 2012 ( ) kits																					
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete ( ) kits																					
<b>TOTAL</b>							1.9	19												19	1.9

Installation Schedule

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In										12	7										
Out										12	7										

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										19
Out										19

Exhibit P-3a	Individual Modification																		
MODIFICATION TITLE:	<u>UC-35D ASE "A" KITS (OSIP 011-11)</u>																		
MODELS OF SYSTEMS AFFECTED:	<u>UC-35D</u> <span style="float: right;">TYPE MODIFICATION: <u>SAFETY/RELIABILITY</u></span>																		
<p>DESCRIPTION/JUSTIFICATION:                  Southwest Asia Marine Expeditionary Force (MEF) Commanders lack light Operational Support Aircraft (OSA) lift assets capable of operating in threat Surface To Air Missile (SAM) environments of Southwest Asia (i.e. Iraq, Afghanistan). As a consequence, limited high value medium lift logistic assets (KC-130s) capable of operating in threat SAM environments, are being tasked to perform light OSA personnel and material movement requirements. To fill this OSA requirement, the UC-35D is being modified with an Aircraft Survivability Equipment (ASE) system to provide relief to tactical assets that are better utilized in direct support to the warfighter. This requirement was validated in the Marine Requirement Oversight Council Decision Memorandum (MROCDM) UC-35D ASE Urgent Universal Needs Statement (UUNS) 05081UA (7-22-2005) and endorsed by Headquarters Marine Corp Deputy Commander for Aviation (HQMC/DC(A)) in letter APP-34/3900, dated Jul 3, 2007. Two of six Marine UC-35D aircraft have already been modified with an ASE system. This OSIP upgrades the remaining 4 UC-35D aircraft with the same ASE A-Kit configuration.</p>																			
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:																			
FINANCIAL PLAN: (TOA, \$ in Millions)																			
	Prior Years	FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																			
PROCUREMENT																			
Installation Kits																			
UC-35D ASE (OCO)							4	1.4										4	1.4
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							4	2.3										4	2.3
<b>Total Procurement</b>							<b>3.7</b>												<b>3.7</b>

Notes:  
 1. Totals may not add due to rounding

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: UC-35D MODIFICATION TITLE: UC-35D ASE "A" KITS

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: DEPOT CONTRACTOR

ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 1 Months

CONTRACT DATES: FY 2009: N/A FY 2010: N/A FY 2011: Apr-11

DELIVERY DATE: FY 2009: N/A FY 2010: N/A FY 2011: May-11

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY ( ) kits																					
FY 2009 ( ) kits																					
FY 2010 ( ) kits																					
FY 2011 (4) kits							4	2.3												4	2.3
FY 2012 ( ) kits																					
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete ( ) kits																					
TOTAL							4	2.3												4	2.3

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		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 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										4
Out										4

Exhibit P-40, BUDGET ITEM JUSTIFICATION								DATE: February 2010					
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/APN-5 Aircraft Modifications								P-1 ITEM NOMENCLATURE 057700 Common Avionics					
Program Element for Code B Items:								Other Related Program Elements					
	Prior Years	ID Code	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total
QTY		A											
COST (In Millions)	1,703.3	A	147.4	142.4	101.1	14.1	115.2	144.0	80.6	122.3	134.1	1,350.0	3,939.3
<p>DESCRIPTION:</p> <p>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.</p> <p>The specific modifications budgeted and programmed are: (1)The NAVSTAR Global Positioning System (GPS) program is designed to provide a highly accurate position 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 V/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 Ground Proximity Warning System (GPWS) provides visual and aural warnings to the pilot when the aircraft is in a condition that could result in a controlled flight into terrain accident. (4) 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. (5) 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. (6) The Advanced Mission Computer and Display (AMC&amp;D) capabilities including common modules and common Core System Software, will replace existing obsolete AV8B Mission Systems Computer and aging/obsolete AN/AYK-14(V) Mission Computer and Contractor Furnished Equipment Displays. (7) Attitude Gyro Upgrade replaces obsolete gyros in naval aviation aircraft with a more reliable and maintainable gyro. (8) Aircrew Wireless Internal Communications System (AWICS) is a safety generated program that provides a wireless ICS capability to prevent aircrew/passenger entanglement with ICS long cords in the event of mishap and allows unimpeded movement throughout the aircraft. (9) Avionics Component Improvement Program (AVCIP) provides resources to address critical readiness and reliability deficiencies, obsolescence, loss of sustainability and top Fleet repair cost drivers in Naval avionics systems. (10) Military Flight Operations Quality Assurance (MFOQA) provides the war fighter with timely and quantitative information regarding aircrew and system performance for improving safety, operational efficiency, and readiness. (11) Blue Force Situational Awareness (BFSA) actively or passively identify and track US, allied, or coalition forces for the purpose of providing enhanced battle space situational awareness and reducing fratricide.</p> <p>The overall goal of the modifications budgeted in FY 2011 is to procure the common equipment required for the individual aircraft platforms. \$14.1M OCO request funds Blue Force Situational Awareness for USMC vertical lift assets. The specific modifications budgeted and programmed are:</p>													
(TOA, \$ in Millions)													
OSIP No.	Description	Prior Years	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total
71-88	NAVSTAR GPS (Hardware)	325.6	10.0	4.3	9.0		9.0	9.1	9.3	9.7	9.9	129.0	515.7
04-94	AN/ARC-210 (Hardware)	291.7	7.6	3.8	0.5		0.5						303.7
14-97	GPWS (CAT I) Fixed Wing	93.6	3.7	0.3	0.4		0.4						98.0
21-01	CNS/ATM	260.7	65.6	85.9	70.8		70.8	115.6	54.9	105.3	117.5	982.4	1,858.5
02-02	Tactical Air Moving Map Capability (TAMMAC)	77.4	24.4	12.9	7.6		7.6	3.7	2.5				128.5
01-02	AMC&D/MPCD	270.6	25.4	23.8	4.5		4.5	9.8	6.0				340.1
07-04	Attitude Gyro Upgrade	54.4	5.7	2.5	0.7		0.7	0.7					64.0
09-04	Aircrew Wireless Internal Communications System (AWICS)	14.6	3.1	4.4	2.7		2.7	2.1	3.9	3.6	2.8	54.1	91.4
11-09	Avionics Component Improvement Program (AVCIP)		2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	116.2	130.2
20-10	Military Flight Operations Quality Assurance (MFOQA)			2.3	2.8		2.8	1.1	2.0	1.7	1.9	68.4	80.3
10-11	Blue Force Situational Awareness (BFSA)					14.1	14.1						14.1
	Inactive Years	314.8											314.8
<b>Total</b>		<b>1,703.3</b>	<b>147.4</b>	<b>142.4</b>	<b>101.1</b>	<b>14.1</b>	<b>115.2</b>	<b>144.0</b>	<b>80.6</b>	<b>122.3</b>	<b>134.1</b>	<b>1,350.0</b>	<b>3,939.3</b>
<b>Note:</b> Totals may not add due to rounding.													

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 position 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.). The program procures and modifies GPS equipment such as receivers, antennas, amplifiers, and protection technologies as required for naval aviation platforms. NAVWAR protection technologies protect a platform's GPS capability from GPS jamming and unintentional interference. Hardware configurations vary with each T/M/S aircraft. 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 (NAVWAR) 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. The NAVWAR full rate production approval was received in June 2002. Research, Development, Test and Evaluation, Navy (RDT&E.N) is funded under program element #0604777N.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
NAVWAR	382	5.1	21	0.5	4	0.2	27	3.1	23	2.6	27	3.1	27	3.1	25	3.0	271	33.0	807	53.8	
Installation Kits N/R	1	3.3		0.6		0.7		0.7		0.8		0.7		0.8		0.8		1.2	1	9.7	
Installation Equipment																					
GPS	2,047	173.8																	2047	173.8	
NAVWAR	444	21.7	21	1.7	4	0.1	27	2.0	23	1.7	27	2.0	27	2.0	25	1.9	271	22.5	869	55.6	
Installation Equipment N/R		22.2		2.1																24.3	
Engineering Change Orders																					
NAVWAR Kit ECO		0.3																			0.3
Data		7.9																			7.9
Training Equipment																					
GPS	114	7.8																	114	7.8	
NAVWAR	2	0.2																	2	0.2	
Support Equipment		0.4																			0.4
ILS		0.5		0.2		0.2		0.2		0.2		0.2		0.2		0.3		0.2		1.9	
Other Support		79.9		4.2		2.5		2.4		2.6		2.6		2.8		3.0		61.5		161.5	
Interim Contractor Support																					
Installation Cost	195	2.3	37	0.5	45	0.7	46	0.7	50	1.2	23	0.7	27	0.9	27	0.9	300	10.5	750	18.4	
<b>Total Procurement</b>		<b>325.6</b>		<b>10.0</b>		<b>4.3</b>		<b>9.0</b>		<b>9.1</b>		<b>9.3</b>		<b>9.7</b>		<b>9.9</b>		<b>129.0</b>		<b>515.7</b>	

- Notes:
1. Totals may not add due to rounding.
  2. Asterisk indicates amount less than \$51K.
  3. Installation Equipment NR provides non recurring engineering on kits installed in subsequent years. Qty of 1 in FY03 procured as prototype and not installed. Qty of 1 in FY03 HH-60H unit bought will not be installed.
  4. Installation Kit, Installation Equipment and Installation unit costs vary by platform due to different equipment configurations.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: All Aircraft (Excluding AV-8B) 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 Months PRODUCTION LEADTIME: 10 Months

CONTRACT DATES: FY 2009: Dec-08 FY 2010: Dec-09 FY 2011: Dec-10

DELIVERY DATE: FY 2009: Oct-09 FY 2010: Oct-10 FY 2011: Oct-11

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2008 & PY (234) kits	181	2.1	4	0.1	24	0.4	25	0.4											234	3.0
FY 2009 (4) kits							4	0.1											4	0.1
FY 2010 (4) kits									4	0.1									4	0.1
FY 2011 (27) kits									23	0.8	4	0.1							27	0.9
FY 2012 (23) kits											19	0.6	4	0.1					23	0.8
FY 2013 (27) kits													23	0.8	4	0.1			27	0.9
FY 2014 (27) kits															23	0.8	4	0.1	27	0.9
FY 2015 (25) kits																	25	0.9	25	0.9
To Complete (254) kits																	254	9.0	254	9.0
<b>TOTAL</b>	<b>181</b>	<b>2.1</b>	<b>4</b>	<b>0.1</b>	<b>24</b>	<b>0.4</b>	<b>29</b>	<b>0.4</b>	<b>27</b>	<b>0.9</b>	<b>23</b>	<b>0.7</b>	<b>27</b>	<b>0.9</b>	<b>27</b>	<b>0.9</b>	<b>283</b>	<b>10.1</b>	<b>625</b>	<b>16.6</b>

\*\*FY03 (1) HH-60 A-kit installation reflected in Installation Kit N/R line. Qty of 1 in FY03 HH-60H unit bought will not be installed.

\*\*\*Asterisk indicates amount less than \$51K

Installation Schedule

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY2013				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In	181	1	1	1	1	6	6	6	6	7	7	7	8	6	7	7	7	5	6	6	6
Out	181	1	1	1	1	6	6	6	6	7	7	7	8	6	7	7	7	5	6	6	6

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In	6	7	7	7	6	7	7	7	283	625
Out	6	7	7	7	6	7	7	7	283	625

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: AV-8B 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: 11 Months PRODUCTION LEADTIME: 13 Months

CONTRACT DATES: FY 2009: Sep-09 FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

DELIVERY DATE: FY 2009: Oct-10 FY 2010: \_\_\_\_\_ FY 2011: \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2008 & PY (91) kits	14	0.2	33	0.4	21	0.3	17	0.2	6	0.1									91	1.2
FY 2009 (17) kits									17	0.2									17	0.2
FY 2010 ( ) kits																				
FY 2011 ( ) kits																				
FY 2012 ( ) kits																				
FY 2013 ( ) kits																				
FY 2014 ( ) kits																				
FY 2015 ( ) kits																				
To Complete (17) kits																	17	0.4	17	0.4
<b>TOTAL</b>	<b>14</b>	<b>0.2</b>	<b>33</b>	<b>0.4</b>	<b>21</b>	<b>0.3</b>	<b>17</b>	<b>0.2</b>	<b>23</b>	<b>0.3</b>							<b>17</b>	<b>0.4</b>	<b>125</b>	<b>1.9</b>

\*\*Water Tank Panel AV-8B 16 month delivery (FY08-12)

\*\* To support Wartime efforts AV-8B's 4 year IMP Install schedule changed to a 5 year Install Schedule.

\*\*\*Asterisk indicates amount less than \$51K

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	14	8	8	8	9	5	5	5	6	4	4	4	5	5	6	6	6				
Out	14	8	8	8	9	5	5	5	6	4	4	4	5	5	6	6	6				

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In									17	125
Out									17	125

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, KC-130J, C/KC-130T, 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, T-45, and other A/C as directed by OPNAV TYPE MODIFICATION: Common Avionics Modification

DESCRIPTION/JUSTIFICATION:

CNS/ATM provides new and enhanced hardware and software solutions to comply with national and worldwide civil and military airspace requirements. Solutions will include communication, navigation, surveillance and supporting technologies that facilitate air traffic management, and other civil and military operational capabilities. Impacts of non-compliance with airspace standards will include operational delays, circuitously rerouting, or access denial to controlled airspace.

Prioritization of platform type and quantity is based on mission and anticipated operation in affected airspace. Examples of required functionality include Mode S datalink, 8.33 kHz VHF communications, Required Navigation Performance RNP RNAV, Mission Planning integration, Protected Instrument Landing System, cockpit processing and display capability.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Began Mode S and RNP/RNAV integration into P-3 in 2004 with IOC achieved in 2007. Began Mode S, RNP/RNAV, and 8.33 kHz integration into C-2A in 2004 with IOC planned in 2010. Began Mode S, RNP/RNAV, and 8.33 kHz integration into E-2C in 2004 with IOC planned for 2010. Began Mode S, RNP/RNAV, and 8.33 kHz integration into CH-53E in 2005. Began Mode S integration into M/H 60 R/S in 2005 with IOC planned in 2010. Began Mode S integration into F/A 18 C/D in 2009 with IOC planned in 2012. Continue to certify functionality in remaining USN/USMC platforms requiring performance based airspace capabilities.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
CNS/ATM Kit	176	10.6	25	4.5	26	2.0	42	2.2	73	4.1	62	2.6	55	4.9	9	4.5	260	114.2	728	149.7	
Installation Kits N/R		4.7		4.1		6.4		1.1		2.0								0.1		18.4	
Installation Equipment																					
CNS/ATM Equip	433	37.3	44	9.1	88	8.3	145	28.6	137	30.9	95	16.5	205	32.7	272	41.2	938	407.6	2357	612.1	
CNS/ATM P-ILS	713	2.7																713		2.7	
Installation Equipment N/R	12	78.5		8.3	1	21.4		8.6	3	31.8		6.5		27.0	1	22.1	1	74.5	18	278.8	
Engineering Change Orders		0.9				0.1		0.1		0.2		0.1		0.2		1.2		3.1		5.9	
Data		4.7		2.4		1.9		0.4		2.3		0.3		0.4		0.5		2.5		15.4	
Training Equipment	12	8.9	3	3.4	1	5.2	4	3.2	1	9.9		0.8		6.2		6.1	4	33.1	25	76.9	
Support Equipment				0.1		0.3		0.5		0.3		0.2		0.1		0.5		2.1		4.1	
ILS		4.8		1.4		0.8		0.8		1.4		0.8		0.8		2.0		8.1		20.8	
Other Support		98.5		30.7		35.7		22.2		26.8		20.4		28.8		29.6		207.6		500.3	
Interim Contractor Support																					
Installation Cost	128	9.2	31	1.6	49	3.8	62	3.0	74	5.9	102	6.6	89	4.2	195	9.8	683	129.4	1413	173.6	
<b>Total Procurement</b>		<b>260.663</b>		<b>65.6</b>		<b>85.9</b>		<b>70.8</b>		<b>115.6</b>		<b>54.9</b>		<b>105.3</b>		<b>117.5</b>		<b>982.3</b>		<b>1858.5</b>	

- Notes:
1. Totals may not add due to rounding.
  2. A-Kits, B-Kits, and Installation cost varies due to multiple & different functionalities/systems on each aircraft T/M/S.
  3. B-Kits quantities differ from A-Kits where B-Kits consists of a card or module that will be integrated without A-Kit requirement.
  4. Installation Kit/Installation Equipment quantities reflect number of units procured, installation quantity reflects number of aircraft.

**Exhibit P-3a**

MODELS OF SYSTEMS AFFECTED: P-3C, EP-3E, C-2A, EA-6B, KC-130J, C/KC-130T, 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, T-45, and other A/C as directed by OPNAV 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 2009: Jan-09 FY 2010: Jan-10 FY 2011: Jan-11

DELIVERY DATE: FY 2009: Jan-10 FY 2010: Jan-11 FY 2011: Jan-12

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2008 & PY (195) kits	128	9.2	31	1.6	36	2.8													195	13.6
FY 2009 (21) kits					13	1.0													21	1.4
FY 2010 (26) kits							26	1.3											26	1.3
FY 2011 (72) kits							28	1.4	44	3.5									72	4.8
FY 2012 (103) kits									30	2.4	73	4.7							103	7.1
FY 2013 (92) kits											29	1.9	63	3.0					92	4.9
FY 2014 (82) kits													26	1.2	56	3.1			82	4.3
FY 2015 (151) kits															139	6.7	12	2.3	151	9.0
To Complete (671) kits																	671	127.2	671	127.2
<b>TOTAL</b>	<b>128</b>	<b>9.2</b>	<b>31</b>	<b>1.6</b>	<b>49</b>	<b>3.8</b>	<b>62</b>	<b>3.0</b>	<b>74</b>	<b>5.9</b>	<b>102</b>	<b>6.6</b>	<b>89</b>	<b>4.2</b>	<b>195</b>	<b>9.8</b>	<b>683</b>	<b>129.4</b>	<b>1,413</b>	<b>173.6</b>

**\*\*Notes:** E-2C GNS-530 COTS item; no production lead time.

Difference in A-kits and Installations (685) are as follows: MH-60S (117) No A-kits needed. (FY10-15), P-3C (24) installed paid by PMA 290 (FY05 & FY08). MH-53E (1) To Complete

F/A-18A+ (72) No A-kits needed (FY15 & To Complete) and F/A-18 C/D (476) No A-kits needed. (FY 13 - To Complete), C/KC-130T (4) PMA207 to fund A-kits & Installs.

Decrease of CH-53E (-8) and EA-6B 89A (-1) installed by platform OSIP.

\*\*\*Asterisk indicates amount less than \$51K.

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	128	7	8	8	8	12	12	12	13	15	15	16	16	18	18	19	19	25	25	26	26
Out	128	7	8	8	8	12	12	12	13	15	15	16	16	18	18	19	19	25	25	26	26

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In	22	22	22	23	49	48	49	49	683	1413
Out	22	22	22	23	49	48	49	49	683	1413



**Exhibit P-3a**

MODELS OF SYSTEMS AFFECTED: F/A-18C/D/E/F, AV-8B, AH-1Z, UH-1Y 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 2009: Jan-09 FY 2010: Jan-10 FY 2011: Jan-11

DELIVERY DATE: FY 2009: Jan-10 FY 2010: Jan-11 FY 2011: Jan-12

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2008 & PY (488) kits	215	2.5	134	2.5	108	2.8	31	1.2											488	9.0
FY 2009 (49) kits							27	1.1	22	2.3									49	3.4
FY 2010 (1) kits											1	0.1							1	0.1
FY 2011 (6) kits											6	0.7							6	0.7
FY 2012 (8) kits											8	1.0							8	1.0
FY 2013 ( ) kits																				
FY 2014 ( ) kits																				
FY 2015 ( ) kits																				
To Complete ( ) kits																				
<b>TOTAL</b>	<b>215</b>	<b>2.5</b>	<b>134</b>	<b>2.5</b>	<b>108</b>	<b>2.8</b>	<b>58</b>	<b>2.3</b>	<b>22</b>	<b>2.3</b>	<b>15</b>	<b>1.8</b>						<b>552</b>	<b>14.1</b>	

**\*\*Notes:**

- \*\* FY02 F/A-18 C/D/E/F (8) VAL/VER units: corresponding A-kits are in F-18 OSIP NRE line.
  - \*\* FY04 AV-8B (3) VAL/VER units: corresponding A-kits are in AV-8B OSIP NRE line.
  - \*\*FY05 AV-8B Trainer (5) units: corresponding A-kits are in AV-8B OSIP NRE line.
  - \*\*FY09 AV-8B (1) less Install due to an aircraft mishap.
  - \*\* FY11/12/13 to support Wartime efforts AV-8B's 4 year IMP Install schedule changed to a 5 year Install Schedule.
- Installation Schedule

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In	215		44	45	45		36	36	36		58						22			7	8
Out	215		44	45	45		36	36	36		58						22			7	8

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										552
Out										552

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) program modifies/replaces existing obsolete and performance limited AN/AYK-14(V) Mission Computers (MC) and Contractor Furnished Equipment and Displays in naval aviation platforms. The program system consists of an Advanced Mission Computer (AMC) technologies which includes areas such as Mission Processing and Display Processing, Display Heads (DH), High-Speed Data Bus interfaces with Fiber Channel Network Switches (FCNS), Core system software, and multi-functional 8x10 Multipurpose Color Displays (MPCD). AMC&D system will have modular components integrated on an Open Systems Architecture so that it can be tailored and configured for multiple applications implementing common core system software and hardware modules. The capabilities address new performance requirements and technologies while minimizing the investment cost 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), the AMC&D program is leveraging the 5x5 DH to provide a form, fit, function and interface replacement (no install funding required). The program conducts analysis on parts obsolescence and its associated resolutions which will be required to maintain current AMC&D configuration and to determine life of type procurements as required for platform installations. AMC&D MNS - M061-88-94 of 2 December 1994. AMC&D ORD Ser. No. 549-88-00 Approved 21 March 2000.

MPCD production buys began in FY02 (no installation required) and AMC&D LRIP production buys began in FY01 with FRP buys beginning 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 a 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 FY06 procurement for Lots 26 consisted of FCNS, displays and digital video mapping card. The FY06 procurement for Lot 27 consisted 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. The FY08, 09 and 10 procurements include B-kits to provide digital output for the 8x10 AMPD High Resolution Recorder Interface (HRR) to address a COMOPTEVFOR finding of poor ready room playback quality of the current analog video signal.

**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.  
 8x10 Displays MS III 2nd Qtr FY06.  
 Due to variation in lead times, B-kits are procured in year 1, A-kits in year 2 and Installs in year 3. B-kit lead time 19 months, A-kit lead time 8 months.

**FINANCIAL PLAN: (TOA, \$ in Millions)**

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
AMC&D Kit	21	0.6	37	1.9	69	4.0	14	*											141	6.5	
Installation Kits N/R																					
Installation Equipment																					
AMC&D / MPCD Equip	774	150.4	106	9.8	50	12.6													930	172.8	
Installation Equipment N/R		78.9		4.9		2.0		0.3		3.6		2.2								91.8	
Engineering Change Orders		3.9								0.6		0.3								4.8	
Data		1.4																		1.4	
Training Equipment		1.9																		1.9	
Support Equipment		4.4		0.6						0.3		0.3								5.5	
ILS		10.5		1.5		1.2		0.2		0.5		0.3								14.1	
Other Support		18.6		4.0		2.9		3.3		3.0		3.0								34.8	
Interim Contractor Support																					
Installation Cost			78	2.7	90	1.1	24	0.7	58	1.9									250	6.5	
<b>Total Procurement</b>		<b>270.6</b>		<b>25.4</b>		<b>23.8</b>		<b>4.5</b>		<b>9.8</b>		<b>6.0</b>								<b>340.1</b>	

**Notes:**

1. Totals may not add due to rounding.
2. MPCD is a drop-in-replacement. No A-kit required.
3. B-Kit (WRA) procured in outyears are necessary to meet common block configuration.
4. 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: 4 Months PRODUCTION LEADTIME: 14 Months

CONTRACT DATES: FY 2009: Jan-09 FY 2010: Jan-10 FY 2011: Jan-11

DELIVERY DATE: FY 2009: Mar-10 FY 2010: Mar-11 FY 2011: Mar-12

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY (21) kits			21	0.7																21	0.7
FY 2009 (89) kits			57	2.0	32	0.4														89	2.4
FY 2010 (126) kits					58	0.7	24	0.7	44	1.5										126	2.9
FY 2011 (14) kits									14	0.5										14	0.5
FY 2012 ( ) kits																					
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete ( ) kits																					
<b>TOTAL</b>			<b>78</b>	<b>2.7</b>	<b>90</b>	<b>1.1</b>	<b>24</b>	<b>0.7</b>	<b>58</b>	<b>1.9</b>									<b>250</b>	<b>6.5</b>	

Note: Lots 30-35 (109) B-kits with associated installation cost included in schedule, no A-kit required.

Installation Schedule

FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	19	19	20	20	22	22	22	24	6	6	6	6	14	14	15	15				
Out	19	19	20	20	22	22	22	24	6	6	6	6	14	14	15	15				

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										250
Out										250

\* 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 19 months.

Note 1: AMC&D sub-systems may be installed at different times. Aircraft quantity is counted in year of first installation.

Note 2: Kit detail by Lot

Lot	Description
Lot 22-24	A-Kit (a/c mod kit), B-kit (5x5)
Lot 25	A-Kit (a/c mod kit)
Lot 26	B-Kits (AMC, FCNS, 8x10)
Lot 27	A-Kit (8x10 HRRR kit), B-Kit (AMC, FCNS, 8x10)
Lot 28	A-Kit (8x10 HRRR kit), B-Kit (AMC)
Lot 29	A-Kit (8x10 HRRR kit), B-Kit (AMC)
Lot 30	A-Kit (8x10 HRRR kit)

Note 3: Lots 26-29 AMC retrofits are O-Level mods with no install cost. Lots 26-29 8x10 and 8x10 HRRR do have install costs.

Note 4: Due to variation in lead times, B-kits are procured in year 1, A-kits in year 2 and Installs in year 3. B-kit lead time 19 months, A-kit lead time 8 months.

Note 5: Lot 25 B-Kits show no-cost due to the reuse of computers from other aircraft.

Note 6: Lots 30-35 HRRR Kits are per aircraft, and not related to Lots buys per year.

Exhibit P-3a	Individual Modification																																																																																																																																																																																																																																																																																																																																																																																																																															
MODIFICATION TITLE:	<u>Blue Force Situational Awareness (OSIP 10-11)</u>																																																																																																																																																																																																																																																																																																																																																																																																																															
MODELS OF SYSTEMS AFFECTED:	<u>CH-53D/E, MV-22B, H-1, and other aircraft as directed</u>																																																																																																																																																																																																																																																																																																																																																																																																																															
	TYPE MODIFICATION: <u>Common Avionics Modification</u>																																																																																																																																																																																																																																																																																																																																																																																																																															
DESCRIPTION/JUSTIFICATION: Blue Force Situational Awareness employs techniques to actively or passively identify and track US, allied, or coalition forces for the purpose of providing the decision-maker enhanced battlespace situational awareness and reducing fratricide. The program, led by the Army with joint participation, upgrades legacy Force XXI Battle Command Brigade and Below (FBCB2) Blue Force Tracking systems to the configuration required to meet the Joint Battle Command -Platform CDD, providing Joint, interoperable, secure, beyond line of sight, near real time, battle command networking and blue force situational awareness in the cockpit and the command centers.																																																																																																																																																																																																																																																																																																																																																																																																																																
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N/R								1.1													1.1	Installation Equipment																						BFSFA Equip							98	3.9											98	3.9		Installation Equipment N/R																						Engineering Change Orders								0.1													0.1	Data																						Training Equipment																						Support Equipment																						ILS								0.3													0.3	Other Support								4.4													4.4	Interim Contractor Support																						Installation Cost							98	2.4											98	2.4		<b>Total Procurement</b>								<b>14.1</b>													<b>14.1</b>																		
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**Exhibit P-3a**

MODELS OF SYSTEMS AFFECTED: CH-53D/E, MV-22B, H-1, and other aircraft as directed      MODIFICATION TITLE: Blue Force Situational Awareness (OSIP 10-11)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor or USN Field Modification Team

ADMINISTRATIVE LEADTIME: 2 Months      PRODUCTION LEADTIME: 6 Months

CONTRACT DATES:      FY 2009: \_\_\_\_\_      FY 2010: \_\_\_\_\_      FY 2011: Nov-10

DELIVERY DATE:      FY 2009: \_\_\_\_\_      FY 2010: \_\_\_\_\_      FY 2011: May-11

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2008 & PY ( ) kits																					
FY 2009 ( ) kits																					
FY 2010 ( ) kits																					
FY 2011 (98) kits							98	2.4											98	2.4	
FY 2012 ( ) kits																					
FY 2013 ( ) kits																					
FY 2014 ( ) kits																					
FY 2015 ( ) kits																					
To Complete ( ) kits																					
<b>TOTAL</b>							<b>98</b>	<b>2.4</b>											<b>98</b>	<b>2.4</b>	

\*(50) A-Kits are being procured by PMA261

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In																						
Out												49	49									

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In										98
Out										98

Exhibit P-40, BUDGET ITEM JUSTIFICATION							DATE: February 2010						
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:							Other Related Program Elements						
	Prior Years	ID Code	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total
QTY													
COST (In Millions)	41.7	A	7.3	5.5		10.5	10.5					15.0	80.0
<p>DESCRIPTION: The Common Defensive Weapon System (CDWS) consists of a GAU-21 .50 cal machine gun, common cradle, ammo box, feed/link chutes and either a right-hand or a left-hand Medium Window Pintle Connector. The CDWS for the CH-46E is being procured to replace the current WWII era XM-218 .50 cal machine gun. The XM-218 machine gun can no longer be procured, and the gun depot is experiencing a 41% rejection rate. Based on current usage rates and depot maintenance rejection rates the inventory of XM-218 guns will be below requirement in 5 years. There will also be a substantial increase in maintenance funding required to sustain the inventory of usable guns. The CDWS will give the Fleet enhanced reliability, safety, and increased operational effectiveness.</p> <p>OSIP 019-10 provides laser aiming devices for crew served weapons being used in OIF and OEF. There are currently five different types of lasers manufactured by three vendors. This funding will allow the standardization of all NAVAIR Crew Served Weapons (CSW) lasers through attrition and replacement as assets are expended.</p> <p>FY 2009 baseline funding will be used to procure 100 CH-46 installation kits and associated logistics and support costs.</p> <p>FY 2010 Overseas Contingency Operations (OCO) funding will be used to procure 40 UH-1Y installation kits and 400 laser aiming devices. FY 2011 OCO funding will procure an additional 40 UH-1Y installation kits and 2,188 laser aiming devices.</p>													
(TOA, \$ in Millions)													
<u>OSIP No.</u>	<u>Description</u>	<u>Prior Years</u>	<u>FY2009</u>	<u>FY2010</u>	<u>Base FY2011</u>	<u>OCO FY2011</u>	<u>Total FY2011</u>	<u>FY2012</u>	<u>FY2013</u>	<u>FY2014</u>	<u>FY2015</u>	<u>To Complete</u>	<u>Total</u>
003-06	CDWS	40.4	7.2	4.5		3.5	3.5					15.0	70.6
	DAWDF Realignment		*										*
019-10	CSW Laser			1.0		7.0	7.0						8.0
	Inactive OSIPS	1.3											1.3
<b>Total</b>		<b>41.7</b>	<b>7.3</b>	<b>5.5</b>		<b>10.5</b>	<b>10.5</b>					<b>15.0</b>	<b>80.0</b>
<b>Note: Totals may not add due to rounding. Asterisk indicates amount less than \$51K.</b>													

Exhibit P-3a Individual Modification

MODIFICATION TITLE: COMMON DEFENSIVE WEAPON SYSTEM (OSIP 003-06)

MODELS OF SYSTEMS AFFECTED: CH-53D/E, CH-46, UH-1Y TYPE MODIFICATION: MISSION/MISSION ENHANCEMENT

DESCRIPTION/JUSTIFICATION: For Marine Corps assault support aircraft. The CDWS consists of a GAU-21 .50 Caliber machine gun, a MPH 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 GAU-21 .50 Caliber Machine Gun is a Commercial Off-the-Shelf (COTS) item ready for deployment on Marine Corps assault support aircraft (CH-46, CH-53, and UH-1Y). The MPH and aircraft integration kit base designs are also COTS though kit modifications for each T/M/S aircraft are required. CDWS is also being integrated on USN platform MH-60R/S through their own budget lines, thus enhancing the common configurations between USI and USMC.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
CH-46			100	6.5																100	6.5
CH-53E/D	399	19.7																		399	19.7
UH-1Y- Baseline	130	9.3															232	9.9		362	19.2
UH-1Y- FY10 OCO					40	4.5														40	4.5
UH-1Y- FY11 OCO							40	3.5												40	3.5
Installation Equipment																					
CH-46																					
CH-53 E/D	399	6.0																		399	6.0
UH-1Y- Baseline																					
UH-1Y- OCO																					
Data		0.4																			0.4
Training Equipment																					
Support Equipment		1.7																			1.7
ILS		1.6		0.4														2.4			4.4
Other Support		1.7		0.3														2.7			4.7
Interim Contractor Support																					
Installation Cost																					
<b>Total Procurement</b>		<b>40.4</b>		<b>7.2</b>		<b>4.5</b>		<b>3.5</b>										<b>15.0</b>			<b>70.6</b>

Notes:

1. Totals may not add due to rounding

Exhibit P-3a Individual Modification

MODIFICATION TITLE: CREW SERVED WEAPONS LASER (OSIP 019-10)

MODELS OF SYSTEMS AFFECTED: CH-53D/E, CH-46, UH-1Y TYPE MODIFICATION: MISSION/MISSION ENHANCEMENT

DESCRIPTION/JUSTIFICATION: Provide laser aiming devices for crew served weapons being used in OIF and OEF. There are currently five different types of lasers manufactured by three vendors. This funding will allow the standardization of all NAVAIR Crew Served Weapons (CSW) lasers through attrition and replacement as assets are expended.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The GAU-21 .50 Caliber Machine Gun is a Commercial Off-the-Shelf (COTS) item ready for deployment on Marine Corps assault support aircraft (CH-46, CH-53, and UH-1Y). The MPH and aircraft integration kit base designs are also COTS though kit modifications for each T/M/S aircraft are required. CDWS is also being integrated on USN platform MH-60R/S through their own budget lines, thus enhancing the common configurations between USI and USMC. Lasers will support this functionality to improve performance in a night environment while using night vision goggles.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
CH-46																					
CH-53E/D																					
UH-1Y- Baseline																					
UH-1Y- OCO																					
Installation Equipment																					
CH-46																					
CH-53 E/D																					
UH-1Y- Baseline																					
UH-1Y- OCO																					
Data																					
Training Equipment																					
Support Equipment					400	1.0	2,188	7.0												2,588	8.0
ILS																					
Other Support																					
Interim Contractor Support																					
Installation Cost																					
<b>Total Procurement</b>							<b>1.0</b>	<b>7.0</b>													<b>8.0</b>

Notes:

1. Totals may not add due to rounding

Exhibit P-40, BUDGET ITEM JUSTIFICATION							DATE: February 2010						
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/APN-5 Aircraft Modifications							P-1 ITEM NOMENCLATURE 058200, ID SYSTEMS						
Program Element for Code B Items:							Other Related Program Elements						
	Prior Years	ID Code	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total
QTY													
COST (In Millions)	31.1	B	12.0	24.1	20.4		20.4	37.9	39.2	41.7	35.9	159.1	401.4
<p>DESCRIPTION:</p> <p>MK XIIA Mode 5 provides improved secure cooperative combat identification via 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, but not limited to the APX-118/123, UPX-37/41C, APX-111, and APX-119. Mode 5 is designed to be installed in all Navy T/M/S aircraft which are currently Mode 4 IFF capable. Mode 5 is developed in cooperation with NATO and is governed by STANAG 4193.</p>													
(TOA, \$ in Millions)													
OSIP No.	Description	Prior Years	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total
015-03	MARK XIIIA MODE 5 IPF	31.1	12.0	24.1	20.4		20.4	37.9	39.2	41.7	35.9	159.1	401.4
<b>Total</b>		31.1	12.0	24.1	20.4		20.4	37.9	39.2	41.7	35.9	159.1	401.4
<p>Note: Totals may not add due to rounding.</p>													

Exhibit P-3a Individual Modification

MODIFICATION TITLE: MARK XIIA MODE 5 IFF (OSIP 015-03)

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 via Identification Friend or Foe (IFF). Mode 5 upgrades existing Mode 4 IFF equipment, including cryptography, support equipment, and associated hardware and software changes. Mode 5 is designed to be installed through engineering changes to digital MK XII interrogators and transponders including, but not limited to the APX-118/123, UPX-37/41C, APX-111, and APX-119. Mode 5 is designed to be installed in all Navy T/M/S aircraft which are currently Mode 4 IFF capable. Mode 5 is developed in cooperation with NATO and is governed by STANAG 4193. (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 Engineering Change Proposal (ECP) to incorporate MODE 5 in the APX-118 was completed in July 2001. Contracts for prototype Cryptographic Module and ECP kit are presently executed. Milestone B was completed in 3QFY03. Operational Assessment (OA) completed 2QFY06. Milestone C and Low Rate Initial procurement (LRIP) was approved in July 2006. In March 2007, Joint Requirements Oversight Council Memorandum (JROCM 047-07) endorsed a Mode 5 Joint Initial Operational Capability (IOC) in FY14 and Joint Full Operational Capability (FOC) in 2020. An amendment to the LRIP Acquisition Decision Memorandum was signed in November 2007 to reschedule IOT&E to 2009 in support of DoD synchronization efforts. Full Rate Production (FRP) is scheduled for 1QFY10.

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E	5	72.4	2	9.2	19	30.3		36.5	11	29.2	1	17.2		10.3		14.9		Cont	38	Cont
PROCUREMENT																				
Installation Kits																				
MODE 5 IFF A-KIT			4	*			4	*	80	0.9	89	1.0	104	1.1	40	0.5	50	0.5	371	4.1
Installation Kits N/R																				
Installation Equipment																				
MODE 5 IFF Equip	119	3.0	22	0.4	57	0.7	70	1.2	223	12.4	184	10.0	227	14.9	180	12.4	867	88.6	1949	143.5
Installation Equipment N/R		9.9		7.0		14.5		13.3		11.4		11.6		10.7		8.5		12.2		99.2
Engineering Change Orders																				
MODE 5 IFF Kit ECO		0.3		*		0.1		0.1		0.7		0.8		1.1		0.9		5.4		9.4
Data		0.2		0.1		0.2		0.2		0.5		0.4		0.3		0.3		2.0		4.0
Training Equipment		0.5		0.1		1.7		0.9		2.0		1.5		1.3		1.5		4.1		13.6
Support Equipment		8.6		1.7		2.2		1.9		2.7		4.1		1.0		0.4		3.0		25.6
ILS		1.1		0.6		1.0		1.0		1.7		2.0		2.0		2.1		8.5		19.9
Other Support		7.5		2.1		3.5		1.7		5.7		5.5		6.8		6.4		28.8		68.0
Interim Contractor Support																				
Installation Cost	14	0.1	8	*	113	0.1	57	0.1	74	0.1	293	2.2	273	2.6	318	2.9	1,170	6.0	2320	14.1
<b>Total Procurement</b>		<b>31.1</b>		<b>12.0</b>		<b>24.1</b>		<b>20.4</b>		<b>37.9</b>		<b>39.2</b>		<b>41.7</b>		<b>35.9</b>		<b>159.1</b>		<b>401.4</b>

Notes:

- Totals may not add due to rounding. Asterisk indicates amount less than \$51K
- Mode 5 IFF "A" Kits will be required for installation on the F/A-18C/D, C-130T, C-20, C-40, E-6B, and UC-35 platforms along with the "B" kits. The other platforms will only require "B" kits. A-Kit realignment due to changes in platform schedules.
- Inventory objective increase and cost changes due to Resource Sponsor direction to add F/A-18C+/E/F and EA-18G (AN/APX-111).
- Installation of 52 B-Kits procured in FY07 delayed to FY10 due to program delays (Amendment to Mark XIIA Mode 5 Identification Friend or Foe Milestone C/Low Rate Initial Production Acquisition Decision Memorandum, 14 November 2007)

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: VARIOUS (49 SEPARATE T/M/S) MODIFICATION TITLE: MARK XIII MODE 5 IFF (OSIP 015-03)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: FIELD INSTALL KITS AND VENDOR DEPOT ECP INSTALLATION

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2009: Jun-09 FY 2010: Dec-09 FY 2011: Dec-10

DELIVERY DATE: FY 2009: Jun-10 FY 2010: Dec-10 FY 2011: Dec-11

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL			
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$		
FY 2008 & PY (119) kits	14	0.1	8	*	97	0.1														119	0.2	
FY 2009 (26) kits					16	*	10	*													26	*
FY 2010 (57) kits							47	0.1	10	*											57	0.1
FY 2011 (74) kits									64	0.1	10	*									74	0.1
FY 2012 (303) kits											283	2.2	20	*							303	2.2
FY 2013 (273) kits													253	2.5	20	*					273	2.6
FY 2014 (331) kits															298	2.9	33	*			331	2.9
FY 2015 (220) kits																	220	1.9			220	1.9
To Complete (917) kits																	917	4.0			917	4.0
<b>TOTAL</b>	<b>14</b>	<b>0.1</b>	<b>8</b>	<b>*</b>	<b>113</b>	<b>0.1</b>	<b>57</b>	<b>0.1</b>	<b>74</b>	<b>0.1</b>	<b>293</b>	<b>2.2</b>	<b>273</b>	<b>2.6</b>	<b>318</b>	<b>2.9</b>	<b>1,170</b>	<b>6.0</b>		<b>2,320</b>	<b>14.1</b>	

1. Asterisk indicates amount less than \$51K.
2. Contract dates changed in FY09 due to late approval of LRIP4 and in FY10 due to FRP scheduled for 1Q FY10.

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	14	1	2	2	3	10	35	35	33	14	14	14	15	16	18	20	20	53	70	85	85
Out	14	1	2	2	3	10	35	35	33	14	14	14	15	16	18	20	20	53	70	85	85

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In	72	70	65	66	70	78	85	85	1170	2320
Out	72	70	65	66	70	78	85	85	1170	2320

Exhibit P-40, BUDGET ITEM JUSTIFICATION							DATE: <b>February 2010</b>						
APPROPRIATION/BUDGET ACTIVITY <i>Aircraft Procurement, Navy/APN-5 Aircraft Modifications</i>							P-1 ITEM NOMENCLATURE <b>058900, RQ-7 Series</b>						
Program Element for Code B Items:							Other Related Program Elements <b>0305233N</b>						
	Prior Years	ID Code	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total
QTY		A											
COST (In Millions)		A			18.1	8.0	26.1	11.6	11.7	12.0	8.5		69.9
<p>This line is a new start in FY 2011 and funds modifications to the RQ-7 UAV and associated support systems. The RQ-7 UAV, formerly referenced as the Marine Corps Tactical Unmanned Aircraft System (MCTUAS) and commonly referred to as the Shadow, provides dedicated Reconnaissance, Surveillance and Target Acquisition (RSTA), Intelligence, Battle Damage Assessment and Force Protection to the Marine Air-Ground Task Force (MAGTF). The RQ-7 provides the Marine Expeditionary Force (MEF) with critical battlefield intelligence and targeting information in the rapid cycle time required for success at the tactical level.</p> <p>The RQ-7 UAV system consists of four air vehicles (each configured with an EO/IR sensor payload), launcher, ground control, attrition engine, vehicle mounted shelters, support equipment, and government furnished equipment which includes: power generation; communications equipment; automated recovery equipment; remote video terminals; vehicle mounted shelters; and high mobility multipurpose wheeled vehicles with trailer(s). Each system is equipped with one maintenance section multifunctional vehicle and is supported by a mobile maintenance facility (MMF). The RQ-7 has logged over 7,000 flight hours since July 2007 most were flown in support of Operation Iraqi Freedom.</p> <p>RQ-7 is procured through the Army on the Army's Shadow TUAS production contract and is identical to the Army's system. The Marine Corps configuration matches the Army's to ensure combat units have maximum interoperability, maintainability, and combat effectiveness.</p> <p>Requested FY 2011 funding will support the continuation of Congressionally mandated Tactical Common Data Links (TCDL) retrofit which includes Universal Ground Control Station (GCS), Universal Ground Data Terminal (UGT) and Re-Wing . TC DL upgrade will significantly reduce radio spectrum bandwidth requirements and provide more secure and robust communications. Laser Designator upgrade will provide the capability to provide target designation services to strike aircraft. System has completed OT&amp;E.</p> <p>Requested funding will also support Pre-Planned Product Improvement (P3I), including a number of improvements including but not limited to, technology insertion upgrades to improve reliability, safety and performance, weaponization, communications, target designation, and other upgrades to be determined based on operational requirements and user needs. Additionally, Common Systems Integration is required to ensure interoperability with other weapon systems, manned and unmanned. Included in this category is Universal Ground Control Station (UGCS), Trainer upgrades and One System Remote Video Transceiver (OSRVT) and Advance Payloads. Small Sense and Avoid System (SSAASy) is required to meet the requirement for a traffic alert ar collision avoidance system and to allow for operations in the National Airspace (NAS). Rolling Take Off and Launch and Land Heavier Air Vehicle (LALHAV) is required to improve reliability and provides redundant take off capability for the system. FY 20 OCO funding is requested to upgrade 2 RQ-7 systems to TC DL standard to maintain interoperability with Army during planned OEF deployment.</p>													
(TOA, \$ in Millions)													
<u>OSIP No.</u>	<u>Description</u>	<u>Prior Years</u>	<u>FY2009</u>	<u>FY2010</u>	<u>Base FY2011</u>	<u>OCO FY2011</u>	<u>Total FY2011</u>	<u>FY2012</u>	<u>FY2013</u>	<u>FY2014</u>	<u>FY2015</u>	<u>To Complete</u>	<u>Total</u>
006-11	RQ-7 UAV Retrofits				18.1	8.0	26.1	11.6	11.7	12.0	8.5		69.9
<b>Total</b>					<b>18.1</b>	<b>8.0</b>	<b>26.1</b>	<b>11.6</b>	<b>11.7</b>	<b>12.0</b>	<b>8.5</b>		<b>69.9</b>
<b>Note: Totals may not add due to rounding.</b>													

Exhibit P-3a Individual Modification

MODIFICATION TITLE: RQ-7 UAV Retrofits (OSIP 006-11)

MODELS OF SYSTEMS AFFECTED: RQ-7B Shadow UAV TYPE MODIFICATION: Added Capability

**DESCRIPTION/JUSTIFICATION:**

The RQ-7 UAV, formerly referenced as the Marine Corps Tactical Unmanned Aircraft System (MCTUAS) and commonly referred to as the Shadow, provides dedicated Reconnaissance, Surveillance and Target Acquisition (RSTA), Intelligence, Battle Damage Assessment and Force Protection to the Marine Air-Ground Task Force (MAGTF). The RQ-7 provides the Marine Expeditionary Force (MEF) with critical battlefield intelligence and targeting information in the rapid cycle time required for success at the tactical level.

The RQ-7 UAV system consists of four air vehicles (each configured with an EO/IR sensor payload), launcher, ground control, attrition engine, vehicle mounted shelters, support equipment, and government furnished equipment which includes: power generation; communications equipment; automated recovery equipment; remote video terminals; vehicle mounted shelters; and high mobility multipurpose wheeled vehicles with trailer(s). Each system is equipped with one maintenance section multifunctional vehicle and is supported by a mobile maintenance facility (MMF). The RQ-7 has logged over 7,000 flight hours since July 2007 most were flown in support of Operation Iraqi Freedom.

RQ-7 is procured through the Army on the Army's Shadow TUAS production contract and is identical to the Army's system. The Marine Corps configuration matches the Army's to ensure combat units have maximum interoperability, maintainability, and combat effectiveness.

Requested FY 2011 funding will support the continuation of Congressionally mandated Tactical Common Data Links (TCDL) retrofit which includes Universal Ground Control Station (GCS), Universal Ground Data Terminal (UGT) and Re-Wing . TCDL upgrade will significantly reduce radio spectrum bandwidth requirements and provide more secure and robust communications. Laser Designator upgrade will provide the capability to provide target designation services to strike aircraft. System has completed OT&E.

Requested funding will also support Pre-Planned Product Improvement (P3I), including a number of improvements including but not limited to, technology insertion upgrades to improve reliability, safety and performance, weaponization, communications, target designation, and other upgrades to be determined based on operational requirements and user needs. Additionally, Common Systems Integration is required to ensure interoperability with other weapon systems, manned and unmanned. Included in this category is Universal Ground Control Station (UGCS), Trainer upgrades and One System Remote Video Transceiver (OSRVT) and Advance Payloads. Small Sense and Avoid System (SSAASy) is required to meet the requirement for a traffic alert and collision avoidance system and to allow for operations in the National Airspace (NAS). Rolling Take Off and Launch and Land Heavier Air Vehicle (LALHAV) is required to improve reliability and provides redundant take off capability for the system. FY 2011 OCO funding is DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Shadow Laser Designator has completed OT&E and is in use with the Army. Tactical Common Data Link is in development with the Army, planned IOC in FY10.

**FINANCIAL PLAN: (TOA, \$ in Millions)**

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E						1.0		7.8		0.9		0.9		0.9		0.9					12.5
PROCUREMENT																					
Installation Kits																					
Installation Kits N/R																					
Installation Equipment																					
P3I Upgrades/Retrofits							17.4		11.1		11.2		11.5		8.0						59.3
P3I Upgrades/Retrofits (OCO)							8.0														8.0
Installation Equipment N/R							0.7		0.5		0.5		0.5		0.5						2.6
Engineering Change Orders																					
Data																					
Training Equipment																					
Support Equipment																					
ILS																					
Other Support																					
Interim Contractor Support																					
Installation Cost																					
<b>Total Procurement</b>							<b>26.1</b>		<b>11.6</b>		<b>11.7</b>		<b>12.0</b>		<b>8.5</b>						<b>69.9</b>

- Notes:  
 1. Totals may not add due to rounding.  
 2. Installation costs are TBD.

Exhibit P-40, BUDGET ITEM JUSTIFICATION							DATE: February 2010						
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/APN-5 Aircraft Modifications							P-1 ITEM NOMENCLATURE 059000, V-22 SERIES						
Program Element for Code B Items:							Other Related Program Elements						
	Prior Years	ID Code	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total
QTY		A											
COST (In Millions)	387.2	A	41.3	77.9	22.0	36.4	58.4	31.6	85.2	96.2	55.6	1,105.0	1,938.5
<p>This line item funds modifications to the Navy's V-22 aircraft. The V-22 is a tilt rotor, Vertical/Short Takeoff and Landing (V/STOL) aircraft for Joint Service application. The Navy acts as the lead service with support from the United States Air Force (USAF) co-located in the V-22 Program Office. The V-22 Program is designed to provide an aircraft to meet the amphibious/vertical assault needs of the United States Marine Corps (USMC), the strike rescue needs of the Navy, and the special operations needs of the USAF and United States Special Operations Command (USSOCOM). The MV-22 variant is replacing the CH-46E in the Marine Corps and will supplement the H-60 in the Navy. The CV-22 variant replaced the MH-53J, and will provide a new capability and augment the MC-130 in the USAF/USSOCOM inventory for special operations infiltration, exfiltration, and resupply missions. The V-22 is capable of flying over 2,100 nautical miles (NM) with a single refueling, giving the Services the advantage of a V/STOL aircraft able to rapidly self-deploy to any location in the world.</p>													
(TOA, \$ in Millions)													
OSIP No.	Description	Prior Years	FY2009	FY2010	Base FY2011	OCO FY2011	Total FY2011	FY2012	FY2013	FY2014	FY2015	To Complete	Total
022-01	MV-22 CORRECTION OF DEFICIENCIES	387.184	41.339	77.927	21.985	36.420	58.405	31.641	85.225	96.202	55.578	1,105.00	1,938.50
<b>Total</b>		<b>387.2</b>	<b>41.3</b>	<b>77.9</b>	<b>22.0</b>	<b>36.4</b>	<b>58.4</b>	<b>31.6</b>	<b>85.2</b>	<b>96.2</b>	<b>55.6</b>	<b>1,105.0</b>	<b>1,938.5</b>
<p>Note: Totals may not add due to rounding.</p>													

Exhibit P-3a	Individual Modification	
MODIFICATION TITLE:	<u>MV-22 CORRECTION OF DEFICIENCIES AND PRE BLOCK A THROUGH C (OSIP 022-01)</u>	
MODELS OF SYSTEMS AFFECTED:	<u>V-22 Series</u>	TYPE MODIFICATION: <u>Safety, Reliability, Increased Service Life, Improved Mission Capability</u>
<p><b>DESCRIPTION/JUSTIFICATION:</b>            MV-22 Correction of Deficiencies provides near and long term improvements to the fleet, focusing on reliability, maintainability, safety upgrades and the correction of operational deficiencies. These modifications and selected component changes are being accomplished by field retrofit. In order to meet the goal of improving capability, increasing reliability, and reducing life-cycle costs, the airframe and integrated systems must be modified as critical corrections/changes are identified. Funds will be used to manage, prepare, process and incorporate Engineering Change Proposals (ECPs), and implement those changes to sustain and improve MV-22 system readiness. These improvements will focus on safety, mission availability, structural integrity, component (avionics/systems) reliability, maintainability, and obsolescence conditions as they are identified as problems. This modifications program may be required to provide timely remedial action for any aircraft system, component or structure. The goal of this program is to improve safety, maximize marginal return on retrofit kits, enhance aircraft performance by increasing unscheduled mean time between removal for selected components, and reduce the average fleet age. ECPs are implemented to coincide with resources and aircraft availability. These changes provide more robust performance in navigation, weapons, avionics, survivability, maneuverability, mission deployment and improved reliability and maintainability of the MV-22 platform.</p> <p><b>Future ECPs:</b>            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&amp;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 implementation 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.</p> <p><b>SHAFT DRIVEN COMPRESSOR SCREEN:</b> 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.</p> <p><b>RAMP ACTUATOR:</b> Incorporates fixes for reliability and life limit deficiencies. There are two ramp actuators per aircraft.</p> <p><b>CARGO RESTRAINT SYSTEM:</b> Changes the cargo restraint factors from a dynamic to a static tie down system to improve Fleet suitability.</p> <p><b>FUEL ISOLATION TUBES:</b> Incorporates the productionized final design for resistive tubes on hoses for lightning strike protection.</p> <p><b>AVIONICS:</b> 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 upgrade, and Avionics Interface Units upgrades. As well as Mission System Upgrade (MSU) and Midwing Processing Unit (MPU) obsolescence replacement.</p> <p><b>POWER TRANSMISSION AND CONTROL:</b> 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.</p> <p><b>COCKPIT:</b> 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.</p> <p><b>STRUCTURAL:</b> 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 trunion fitting.</p> <p><b>PRODUCTION ROTOR LIGHTING PROTECTION:</b> Improves rotor system lighting protection by adding improved bonding harness and grounding strap bracket.</p> <p><b>BRACKET HYDRAULIC LINE CLAMPING:</b> Relocate clamping provisions from the removable conversion actuator fairing to the frame and improve the tube installation.</p> <p><b>SWASHPLATE DRAG TUBE:</b> Redesign Swashplate Drag Tube to increase part life.</p> <p><b>WASHER:</b> Washer to now be included with attach hardware to ensure adequate tying of the assembly.</p> <p><b>RELIABILITY &amp; MAINTAINABILITY FIXES:</b> Includes Corrective Action Plans to make the aircraft compliant with Operation Requirements Document requirements.</p> <p>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.</p> <p>ECP-397: FULL FIDELITY SIMULATOR (FFS) UPGRADES: Improves training and pilot proficiency by incorporating modifications to the FFS #1 &amp; #2 to reflect most current aircraft configuration as directed by Blue Ribbon Panel.</p> <p>ECP-###: 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.</p> <p>ECP-427R1: MECHANICAL PART TASK TRAINER: Improves maintainer and aircrew proficiency by incorporating Block 'A' configuration changes.</p> <p>ECP-451: INTERACTIVE MULTIMEDIA INSTRUCTION: Improves maintainer and aircrew proficiency by incorporating Block 'A' configuration changes.</p> <p>ECP-511: AIRFRAME PART TASK TRAINER, Incorporate Block 'B' configuration changes.</p> <p>ECP-###: Block B safety configuration changes required to meet mission requirements. Changes are associated with the aircraft Propulsion/Drive, Electrical, Avionics, Hydraulics, and Structure/Airframe.</p> <p>ECP-###: Block B safety, reliability and maintainability changes required to meet mission requirements. Changes are associated with the aircraft Propulsion/Drive, Electrical, Avionics, Hydraulics, and Structure/Airframe.</p> <p>ECP-722: Shaft Driven Compressor Inlet Barrier Filter, provides an inlet barrier filter to prevent particles from reaching and damaging the Shaft Driven Compressor.</p> <p>ECP-592: Wing Stow System, Incorporate hydraulic system isolation valve normally closed to inhibit Wing Stow System Forward 2 Lock Pin actuator from extending when performing wing maintenance.</p> <p>ECP-###: Refuel/Defuel Valve, redesign of the refuel/defuel valve.</p> <p>ECP-565: Rotor Harness Redesign, Change the moldings area, extending them to the clamp locations on each side of the strap and squaring off the molded area.</p> <p>ECP-591: Rotor Harness Redesign, revent deformation of the harness, the change will extend molded areas of the harness to the clamp locations on each side of the strap and other corrections to eliminate water intrusion</p> <p>ECP-669: MLG Door Hinge Redesign, new-thicker machined hinge replacement designed to meet current loading requirements.</p>		

ECP-505: ECU Water Spray Redesign, redesigned the water spray inlet assembly (U-tube) and the heat exchanger crossover tube assembly so the system tolerance can be increased to sand and dust ingestion.

ECP-559: 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-513R1: Forward Engine Air Bleed, Redesigned Air tube will improve reliability and increase aircraft safety.

ECP-539: Plugs & Covers, Redesigned plugs and covers to meet durability and operational suitability.

ECP-###: Lightweight Paint, improves aircraft suitability and reduces IR Vulnerability.

ECP-652R1: Cargo Hook Door Actuator, new design improves cargo hook door reliability and operational suitability.

ECP-573: 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.

ECP-479: Suction Lift Pump Bypass Valve, Redesigned valve to prevent the diaphragm inverting due to pressure spike.

ECP-568R1: Swashplate Actuator Hose, Redesign Hose end fittings of the swashplate Actuator ports by adding tabs so hoses can be oriented one way.

ECP-510: Climb Dive Valve, provides for redesign of the valve to decrease cracking pressure to 1.0-1.5ps.

ECP-684: Ice Protection System and Fairings, provides automatic anti-ice protection in aircraft icing conditions.

ECP-721: Ramp Mounted Weapon System (RMWS), Provide an all quadrant Defensive Weapon System for the V-22.

ECP-716: Infra-Red Suppressor (IRS) Redesign, Provide a more reliable configuration to items that have contributed to poor system reliability and identify a repair kit for the aircraft Infra-Red Suppressor system.

ECP-783: Cabin Upper Crew Door, Provides redesign to the cabin upper crew door and the proper use of the new door.

ECP-761: Engine Air Particle Separator (EAPS), Provides a more efficient and reliable system by incorporating an upgraded EAPS Blower case drain hose, an upgraded EAPS Blower outlet hose, and the elimination of restrictors in the case drain circuit.

ECP-621: Full Authority Digital Electronic Control (FADEC), Provides modification of the FADEC mount brackets to allow proper seating of FADEC into mounting bracket.

ECP-695R2: Improved Troop Seats, Provides for the redesign of the seat and the supporting airframe seat mount points.

ECP-557: Additional Force & Drive Rate for TCL, Provides an increased maximum drive rate to meet current design specification requirements.

ECP-544: Slip Ring Commonality, Provides a revised routing of the power feeder lines in the right and left hand Engine Nacelles.

ECP-515: Improved Nacelle Blower, Provides a change to correct current nacelle blower bearing failures.

ECP-685: Incorporation of Miscellaneous ECPs, Implements the following ECPs on Lot 4 aircraft: 2nd source Refuel/Defuel Valve, Block B Cargo Door Actuator Redesign and Cargo Tie Down.

ECP-720: Improved Electrical Contactors & Material Torque Valve, Changes material of nuts for electrical contactors and revises the torque values for fastening wiring to contactors.

ECP-613: Purge Check Valve Cracking Pressure Change, Provides a modified purge valve to increase the cracking pressure range.

ECP-746: Air Cycle Machine Filtration, Modifies the bearing cooling flow path and adds a barrier filter.

ECP-741: Fuel System Changes, Provides redesigned Rupture Disks and Sponson Boost Pumps to decrease fatigue failure and eliminate potential fuel run back.

ECP-649: O2N2 Concentrator, Modifies the O2N2 Concentrator to eliminate false failures at low end of tolerance band for input air pressure.

ECP-647: Landing Gear Isolation Valve, Provides a new Landing Gear Isolation Valve to eliminate single failures in the normal control system which can cause retraction or extension in flight at unsafe airspeed.

ECP-693: Fuel Surge Valve: Provides a regulator in the V-22 refueling system to limit the surge pressures associated with aerial refueling.

ECP-717: Tilt Axis Gear Box Mounting Hardware Change, Provides upgraded hardware for mounting in the tilt axis gear box.

ECP-751: Blade Deice Distributor (BDD) Chassis Redesign, Provides upgraded BDD and mounting bracket to alleviate fretting and cracking associated with original BDD.

ECP-763: Nose Landing Gear (NLG) Door Mechanism Improvements, Provides modified bellcrank stop and clamp-up bushings to prevent damage to NLG doors.

ECP-###: Retractable Refueling Probes, Provides Retractable Refueling Probe installation kits for 4 retrofit aircraft.

ECP-###: Troop Commander Situational Awareness provides independent communication, flight progress and GPS updates to embarked troops

ECP-772: FLIR Firmware Improvements, Provides the FLIR System Electronics Unit Video Signal Processor firmware version 2.38.

ECP-681R1: Aerojet Fire Suppressors Revision, Provides redesigned mounting hardware for fire suppressor cannisters to reduce potential for galling threads during installation.

ECP-782: ALE-47 Forward Firing Bucket, Provides for the ALE-47 Dispenser with Cabin Dispense Switch. Modifications will increase survivability of aircraft operating in OCO environment. SUPPLEMENTAL.

ECP-806: EMI Hardened Proximity Sensors, revealed bladefold proximity sensor is susceptible to certain frequencies. Blade folding resulted in repeated shear pin failures (at B band frequency). Blade folding resulted in proximity sensor toggling between far/near indications (at C band frequency).

ECP-775: ClamShell Doors: To incorporate two inspection/maintenance clam shell doors and their supporting substructure.

ECP-825: Nacelle Clamshell Door Hinge Halves: The Nacelle Clamshell doors utilize aluminum hinge halves have been found to be cracked/fretted. Steel hinge halves are to replace the aluminum hinge halves.

ECP-###: Interim Defense Weapon System (IDWS): Provides responsive and suppressive fire with its maximum sustained rate of fire to provide maximum protection from threats in the vicinity of the landing zone.

ECP-803: AMT #3, Improves training and pilot proficiency by incorporating modifications to the AMT #3 to reflect most current Block A and Block B aircraft configuration.

ECP-806: KVADR replaces the GFE Flight Incident Recorder (FIR) due to obsolescence issues and diminishing manufacturing sources for parts.

ECP-845: To incorporate the improved material composition of the Engine Air Particle Separator (EAPS) blower shaft and durability of the blower bearing to reduce wear and failure of components.

ECP ###: Ice Protection Provides new heater blankets without the associated fairings as a stand alone number to lessen the damage to the fairings associated with blades

OCO 08: GPS Repeater for Troop Commander Block B : Provides procurement and installation of GPS Repeater for the embarked assault units for Block B aircraft. This modification provides embarked troops the ability to update their GPS location data while still in the aircraft, precluding hazardous delays in the zone while waiting for the GPS update.

OCO 08: FBCB2 Compliant Blue Force Tracker (BFT) with moving map: funding provides 44 off-shelf Blue Force Tracker systems for the MV-22 to retrofit the Block B aircraft deploying in support of OCO.

OCO 08: Defensive Weapon System: The Block B CPD requires V22 aircraft have a mission configurable, crew-served, Night Vision Device (NVD) compatible DWS. This funding will field the retrofit of an interim solution ramp mounted weapons system (RMWS) to support OCO until the forward fit becomes effective starting in lot 11.

OCO 08: Ice Protection: CDD/MIPC/NIPCU Block B CPD states the V22 is required to be able to operate in moderate icing conditions without adaptive kits. Funding will field kits and installation of the ice protection systems in 3 aircraft. This modification is necessary to ensure that training squadrons have the icing system functionality to support training requirements for squadron deployment in support of OCO.

OCO 08: Air Cycle Machine Modification: Funding will provide 44 Block B aircraft with the improved Air Cycle Machine modification. This modification provides needed design changes to combat erosion due to elevated levels of sand and dust in environments encountered while supporting OCO.

OCO 11: 5-Way Coupled Hover Switch will provide aircrew the ability to quickly and safely engage coupled hover when encountering severe visibility conditions during the terminal phase of approach to landing.

ECP-744: Cargo nets and pulleys mission kits: to correct deficiencies.

ECP-TBD: Cargo Winch System Redesign

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

The MV-22 aircraft are currently in Full Rate Production. First acceptance and incorporation has been in production aircraft. FY2008 through FY2012 Production is in a Multi Year Procurement Contract. Awarded Kit deliveries Installations are on schedule.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
5-Way Coupled Hover Switch (OCO)																					
Addl Force & Drive Rate Output for TCL	39	1.8																		39	1.8
Aerogel Fire Suppressors Revision	48	0.1																		48	0.1
Air Cycle Machine Filtration	66	1.7																		66	1.7
Air Cycle Machine Filtration OCO	46	1.1																		46	1.1
ALE-47 Forward Firing Bucket	17	3.2	20	0.6	16	0.5														53	4.3
AVSS Mounting Proximity Sensors	1	0.1	3	*	1	*														5	0.1
Blade Deice Distributor Chassis Redesign	56	1.8	22	0.6																78	2.4
Block A to B (9 A/C) (Lot 5, 41-49)	9	47.9																		9	47.9
Block A to B GFE - AB342	10	3.3																		10	3.3
Block B to C Retrofit											6	22.7	3	11.7			82	343.5	91	378.0	
Cargo Nets and Pulleys Mission Kit	71	1.0	17	0.2																88	1.2
CCP Items (various)	192	24.9																		192	24.9
Clam Shell Doors																					
Climb Dive Valve	28	0.4																		28	0.4
DDMS/DEU	9	0.6																		9	0.6
ECU Water Spray Design	57	*																		57	*
EMI Hardened Proximity Sensors	52	1.2	17	0.4	20	0.4														89	2.0
Engine Air Particle Separator AB429	102	8.0																		102	8.0
Engine Air Particle Separator Blower Bearing			22	0.5	8	0.2	114	2.0	220	3.9	96	2.0								460	8.6
Engine Air Particle Separator Upgrade	2	1.1																		2	1.1
FBCB2 Compliant Blue Force Tracker (OCO)	12	2.3			120	23.5														132	25.8
FLIR Firmware Improvements	12	*	14	2.4																26	2.4
Fuel Surge Valve	45	0.1	19	0.1	3	*														67	0.2
Fuel System Changes	60	0.7	19	0.2	3	*														82	0.9
Full Authority Digital Engine Controller	20	0.1																		20	0.1
FWD Engine Bleed Air	27	0.4																		27	0.4
GPS Repeater for Troop Commander	24	1.3																		24	1.3
Ice Protection - Block B	16	0.3															12	27.8	28	28.2	
Ice Protection - Block B CDD/MIPC/NIPCU	334	51.0																		334	51.0
Incorporation of Misc ECPS			30	0.4																30	0.4
Interim Defense Weapon System (OCO)	8	4.8			20	30.0														28	34.8
Interim Defense Weapon System (OCO)							62	33.9												62	33.9
Interior Handholds	66	*																		66	*
IR Suppressor	68	5.1																		68	5.1
KVADR					22	0.6														22	0.6
Landing Gear Isolation Valve	36	1.5	48	1.9	30	1.2														114	4.7
Life Rafts	3	*																		3	*
Mission System Upgrade									6	2.6	81	17.3	89	19.0	50	10.6				226	49.5
MLG Door Mechanism Improvements													20	0.6						20	0.6
Nacelle Clamshell Door Hinge Half	40	0.5	17	0.2	17	0.2	4	*												78	1.0
Nose Landing Gear	1	*	15	0.1	101	0.8	57	0.5			1	0.2								175	1.6
O2N2 Concentrator	42	0.5																		42	0.5
Plugs & Covers	21	0.5																		21	0.5
Pre Block A to B																					
Purge Check Valve Cracking Pressure Change	37	0.1																		37	0.1
Ramp Mounted Weapon System	49	2.0																		49	2.0
Rapid Ground Refueling 48 kits AC 94-141			48	0.2	48	0.2	22	0.1												118	0.5

	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
Refuel/Defuel Valve																					
Retractable Refueling Probes	4	1.7																		4	1.7
Rotor Harness Redesign - AB418	52	0.7																		52	0.7
Rotor Harness Redesign - AB419			29	0.5																29	0.5
SDC DUCT LEAK SWITCH SET POINT	19	*																		19	*
Shaft Driven Comp Inlet Barrier Filter	67	3.8																		67	3.8
SUCTION LIFT PUMP	20	*																		20	*
Swashplate Actuator Hose	53	1.8																		53	1.8
TAGB Mounting Hardware	54	0.4																		54	0.4
Troop Commander Situational Awareness	60	3.3																		60	3.3
Troop Seats	44	4.8																		44	4.8
Upper Crew Door	5	0.5	34	3.3																39	3.8
Installation Kits N/R		76.0		6.9					2.2		15.8		4.4								105.3
Installation Kits N/R OCO							2.5														2.5
Installation Equipment		0.6																			0.6
XXX Equip																					
Installation Equipment N/R																					
Engineering Change Orders																					
XXX Kit ECO XXX																					
XXX Equip ECO XXX																					
Data		0.3		0.3		0.3		*		*		*		*		*		*		*	1.0
Training Equipment	32	110.9	6	13.1	5	10.7	7	9.3	10	13.8	8	8.5	9	11.9	5	9.1	28	191.7	110	378.9	
Support Equipment		1.3		1.1		0.3		0.9		2.0		1.4		2.0		2.0					11.2
ILS		4.0							2.1		13.9		15.3		3.8						39.1
Other Support		3.2		1.5		2.0		2.1		2.3		2.4		2.7		2.7		1.9			20.8
Interim Contractor Support																					
Installation Cost	351	4.6	159	6.7	444	7.0	374	7.1	117	2.7	33	0.9	36	28.5	4	27.5	94	540.0	1612	624.9	
<b>Total Procurement</b>		<b>387.2</b>		<b>41.3</b>		<b>77.9</b>		<b>58.4</b>		<b>31.6</b>		<b>85.2</b>		<b>96.2</b>		<b>55.6</b>		<b>1105.0</b>		<b>1938.5</b>	

Notes:

- 1. Totals may not add due to rounding
- 2. Asterisk indicates amount less than \$51K

MODELS OF SYSTEMS AFFECTED:

INSTALLATION INFORMATION: V-22 Series MODIFICATION TITLE: MV-22 CORRECTION OF DEFICIENCIES AND PRE-BLOCK A THROUGH C. (OSIP 022-01)

METHOD OF IMPLEMENTATION: \_\_\_\_\_

ADMINISTRATIVE LEADTIME: \_\_\_\_\_

CONTRACT DATES: VARIOUS Months PRODUCTION LEADTIME: VARIOUS Months

DELIVERY DATE: FY 2009: VARIOUS FY 2010: VARIOUS FY 2011: VARIOUS

FY 2009: VARIOUS FY 2010: VARIOUS FY 2011: VARIOUS

(\$ in Millions)

Cost:	Prior Years		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2008 & PY (945) kits	351	4.6	153	6.4	261	5.8	179	3.4	1	1.6									945	21.8
FY 2009 (239) kits			6	0.3	153	0.9	80	0.8											239	1.9
FY 2010 (205) kits					30	0.3	115	2.9	60	0.6									205	3.8
FY 2011 (100) kits									56	0.5	33	0.9	11	0.3					100	1.7
FY 2012 ( ) kits																				
FY 2013 (6) kits													5	28.1	1	6.9			6	35.0
FY 2014 (23) kits													20	0.1	3	20.6			23	20.6
FY 2015 (1) kits																	1	5.8	1	5.8
To Complete (93) kits																	93	534.3	93	534.3
<b>TOTAL</b>	<b>351</b>	<b>4.6</b>	<b>159</b>	<b>6.7</b>	<b>444</b>	<b>7.0</b>	<b>374</b>	<b>7.1</b>	<b>117</b>	<b>2.7</b>	<b>33</b>	<b>0.9</b>	<b>36</b>	<b>28.5</b>	<b>4</b>	<b>27.5</b>	<b>94</b>	<b>540.0</b>	<b>1612</b>	<b>624.9</b>

Installation Schedule

	FY 2008 & Prior	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	351	39	40	40	40	111	111	111	111	93	94	94	93	29	30	29	29	8	9	8	8
Out	351		39	40	40	40	111	111	111	111	93	94	94	93	29	30	29	29	8	9	8

  

	FY 2014				FY 2015				To Complete	Total
	1	2	3	4	1	2	3	4		
In	9	9	9	9	1	1	2		94	1612
Out	8	9	9	9	9	1	1	2	94	1612

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