DEPARTMENT OF THE NAVY
FISCAL YEAR (FY) 2008/2009
BUDGET ESTIMATES

JUSTIFICATION OF ESTIMATES
FEBRUARY 2007

AIRCRAFT PROCUREMENT, NAVY
Volume II:
BUDGET ACTIVITY 5

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, $10,393,316,000, to remain available for obligation until September 30, 2009.

"In accordance with the President's Management Agenda, Budget and Performance Integration initiative, this program has been assessed using the Program Assessment Rating Tool (PART). Remarks regarding program performance and plans for performance improvement can be located at the Expectmore.gov website."

DEPARTMENT OF THE NAVY

FY 2008 PROCUREMENT PROGRAM

SUMMARY
($ IN MILLIONS)

30 JAN 2007

APPROPRIATION	FY 2006	FY 2007	FY 2008
AIRCRAFT PROCUREMENT, NAVY	1,688.2	1,684.8	1,645.9
TOTAL DEPARTMENT OF THE NAVY	1,688.2	1,684.8	1,645.9

DEPARTMENT OF THE NAVY

FY 2008 PROCUREMENT PROGRAM

SUMMARY
($ IN MILLIONS)

30 JAN 2007

APPROPRIATION: AIRCRAFT PROCUREMENT, NAVY

ACTIVITY	FY 2006	FY 2007	FY 2008
05. MODIFICATION OF AIRCRAFT	1,688.2	1,684.8	1,645.9
TOTAL AIRCRAFT PROCUREMENT, NAVY	1,688.2	1,684.8	1,645.9

DEPARTMENT OF THE NAVY
FY 2008 PROCUREMENT PROGRAM EXHIBIT P-1

APPROPRIATION: 1506N AIRCRAFT PROCUREMENT, NAVY DATE: 30 JAN 2007

MILLIONS OF DOLLARS

LINE NO	ITEM NOMENCLATURE	IDENT CODE	FY 2006 QUANTITY	FY 2006 COST	FY 2007 QUANTITY	FY 2007 COST	FY 2008 QUANTITY	FY 2008 COST	SEC
	BUDGET ACTIVITY 05: MODIFICATION OF AIRCRAFT								
	MODIFICATION OF AIRCRAFT								
25	EA-6 SERIES	A		127.7		48.8		30.6	U
26	AV-8 SERIES	A		47.2		57.5		37.5	U
27	ADVERSARY	A		4.4		2.6		3.5	U
28	F-18 SERIES	A		439.9		424.7		441.9	U
29	H-46 SERIES	A		67.3		65.7		22.1	U
30	AH-1W SERIES	A		36.6		25.7		7.4	U
31	H-53 SERIES	A		68.6		55.4		48.1	U
32	SH-60 SERIES	A		14.0		23.5		58.6	U
33	H-1 SERIES	A		22.7		4.4		6.5	U
34	EP-3 SERIES	A		43.5		60.8		46.9	U
35	P-3 SERIES	A		193.5		263.9		262.6	U
36	S-3 SERIES	A		.7		.7		.5	U
37	E-2 SERIES	A		23.1		9.1		11.0	U
38	TRAINER A/C SERIES	A		13.9		17.0		20.2	U
39	C-2A	A		30.7		37.0		32.4	U
40	C-130 SERIES	A		47.8		4.6		1.2	U
41	FEWSG	A		.7		.6		.7	U
42	CARGO/TRANSPORT A/C SERIES	A		27.1		30.2		20.9	U
43	E-6 SERIES	A		11.1		58.6		126.2	U
44	EXECUTIVE HELICOPTERS SERIES	A		21.5		40.0		55.8	U

DEPARTMENT OF THE NAVY
FY 2008 PROCUREMENT PROGRAM

EXHIBIT P-1

APPROPRIATION: 1506N AIRCRAFT PROCUREMENT, NAVY

DATE: 30 JAN 2007

MILLIONS OF DOLLARS

LINE NO	ITEM NOMENCLATURE	IDENT CODE	FY 2006 QUANTITY	FY 2006 COST	FY 2007 QUANTITY	FY 2007 COST	FY 2008 QUANTITY	FY 2008 COST	SEC
45	SPECIAL PROJECT AIRCRAFT	A		26.2		17.1		13.7	U
46	T-45 SERIES	A		45.1		35.8		57.2	U
47	POWER PLANT CHANGES	A		28.3		24.5		22.5	U
48	JPATS SERIES	A		.7		1.6		9.9	U
49	AVIATION LIFE SUPPORT MODS	A		.3		.4		8.4	U
50	COMMON ECM EQUIPMENT	A		66.5		35.7		65.8	U
51	COMMON AVIONICS CHANGES	A		175.1		176.8		148.8	U
52	COMMON DEFENSIVE WEAPON SYSTEM	A		13.6		10.9		6.5	U
53	ID SYSTEMS	A		8.2		11.1		10.3	U
54	V-22 (TILT/ROTOR ACFT) OSPREY	B		82.2		140.0		68.4	U
TOTAL MODIFICATION OF AIRCRAFT				1,688.2		1,684.8		1,645.9	
TOTAL AIRCRAFT PROCUREMENT, NAVY				1,688.2		1,684.8		1,645.9	

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2007	
APPROPRIATION/BUDGET ACTIVITY: **Aircraft Procurement, Navy / APN5 Aircraft Modifications**							P-1 ITEM NOMENCLATURE: **051100, EA-6 SERIES**					
Program Element for Code B Items:							Other Related Program Elements					
	PRIOR YEARS	ID Code	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
QUANTITY												
COST (In Millions)	2592.3	A	127.7	48.8	30.6	33.7	32.8	33.3	37.5	38.1	449.3	3424.2

DESCRIPTION: This line item funds modifications to the EA-6B aircraft. The EA-6B Prowler is a four-seat derivative of the A-6 Intruder medium attack aircraft. Among its features are a computer controlled electronic surveillance and control system and high power jamming transmitters in various frequency bands that are contained in pods mounted externally on the five aircraft pylons. The overall goal of the modifications budgeted in FY 2008 is the procurement of Outer Wing Panel (OWP), Low Band Transmitters, Block 89A upgrades, ASN-130A Replacement, J52 Reliability Improvements, Multifunctional Information Distribution System (LINK-16), ICAP III upgrades, and Productive Ratio initiatives.

OSIP No. / DESCRIPTION	PRIOR YEARS	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
019-79 ALQ-99 PODS	814.5	6.6	14.4	21.8	33.4	32.8	33.3	37.5	38.1	93.8	1126.4
032-85 EA-6B STRUCTURAL IMPROVEMENTS	984.0	48.0	23.0	8.8	0.2						1064.2
DERF Non-add	4.3										
111-87 J-52 ENGINES	48.2	0.3	0.3							0.1	48.8
DERF Non-add	6.5										
042-93 BLOCK 89A AVIONICS I	539.4	9.4	1.6								550.3
001-01 ICAP III	185.7	58.7	8.3							332.9	585.5
005-03 MIDS/LINK 16	20.6	4.7	1.2							22.4	49.1
TOTAL	2592.3	127.7	48.8	30.6	33.7	32.8	33.3	37.5	38.1	449.3	3424.2

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

Totals may not add due to rounding
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Exhibit P-3a

MODIFICATION TITLE: ALQ-99 PODS(OSIP 019-79)

MODELS OF SYSTEMS AFFECTED: EA-6 SERIES TYPE MODIFICATION: Reliability/Mission Capability

DESCRIPTION / JUSTIFICATION:
UNIVERSAL EXCITER UPGRADE:
The Universal Exciter Upgrade (UEU) provides a 30% improvement in reliability over that of the current Universal Exciter (UE / MTBF = 100 hrs), increased maintainability, elimination of multiple configurations and performance improvements. ORD #474-88-97 defines the UEU requirements. The UEU entered Engineering and Manufacturing Development in 1991 and achieved Milestone III approval for full rate production in Apr 96. A contract for 119 UEUs was awarded in Sep 96. Follow-on procurements were made in fiscal years 98-01, bringing total UEU procurement quantities up to 480. Pursuant to that inventory objective, an FY99 Congressional (Kosovo Supplemental) add of $39M was received in Sep 99. The modification of UEs to UEUs was accomplished via a "turn key" sole source contract. Initial UEU deliveries occurred in Jul 98, which allowed for an Initial Operational Capability in Apr 99. ALQ-99 Exciters are Weapons Replaceable Assemblies that are readily removed and installed in the ALQ-99 Pod, thus no installation effort/funding is associated with this program. This capability will be available for all EA-6B/EA-18G aircraft, which includes four Naval Air Reserve aircraft.
LOW BAND TRANSMITTER:
The Low Band Transmitter (LBT) will provide the EA-6B with an expanded jamming capability against the Early Warning/Acquisition Radars and Communication Links of modern Integrated Air Defense Systems. Reliability and maintainability will also be greatly improved over that of current ALQ-99 Transmitters. Following a competitive acquisition and Milestone II approval, Engineering and Manufacturing Development was initiated in Sep 96. Critical Design Review was conditionally approved in Dec 97; however, a follow-up review to close out action items was completed in Nov 98. Testing to date has consisted of prototype testing conducted at government and contractor facilities. This testing has successfully demonstrated the key performance parameters identified in OPNAV/N88 ltr Ser No. N880C3/6S663399 of 26 JUL 96 can be attained by the present design. Fabrication of Engineering Development Models (EDMs) began in FY00. EDMs are being used for contractor and Navy testing required to support LRIP and Milestone III approval. The LBT inventory objective is 195. ALQ-99 Transmitters are Weapons Replaceable Assemblies that are readily removed and installed in the ALQ-99 Pod, thus no installation effort/funding is associated with this program. Aircraft Operational Flight Program changes are required to support aircraft integration of this transmitter. This capability will be available for all EA-6B/EA-18G aircraft, which includes four Naval Air Reserve aircraft.
SUPPORT EQUIPMENT:
Introduction of new/modified ALQ-99 pod equipment requires new/modified organizational, intermediate and depot level support equipment, such as modifications to the pod test set to support Low Band Transmitter and Band 7/8 Transmitter, modifications to High Power Device Test Set (HPDTS) to extend frequency coverage to test Band 9/10 transmitters, new Test Program Sets to test Low Band Transmitter and Band 9/10 Transmitters and modified Intermediate/depot level support equipment to test Band 7/8 Transmitters.
ENGINEERING CHANGES:
This ALQ-99 PODS Operational and Safety Improvement Program covers ALQ-99 Pod modifications required to improve reliability/maintainability/availability, enhance mission capability, resolve obsolescence issues, and correct deficiencies found in testing or in the field.
BAND 9/10 TRANSMITTER:
The Band 9/10 Transmitter (Band 9/10) provides the EA-6B an expanded jamming capability against target tracking/fire control radars of modern Integrated Air Defense Systems. Reliability and maintainability are also greatly improved over that of current ALQ-99 Transmitters. Following a competitive acquisition, Engineering and Manufacturing Development of the Band 9/10 was initiated in Jan 92. Production began in FY98, with Initial Operational Capability being accomplished in Nov 99. A total of 231 Band 9/10 Transmitters were procured between FY98 and FY03 with the last transmitter delivered in May 05. ALQ-99 Transmitters are Weapons Replaceable Assemblies that are readily removed and installed in the ALQ-99 Pod, thus no installation effort/funding is associated with this program. This capability will be available for all the EA-6B/EA-18G aircraft, which includes four Naval Air Reserve aircraft.
EXTENDED HIGH BAND RADOME:
A modified ALQ-99 Extended High Band Radome is required for compatibility with the Band 9/10 Transmitter (Band 9/10). This Radome incorporates unique sections of the radome composite structure to prevent damage by impinging energy radiation from the Band 9/10. Between FY98 and FY01, 250 ALQ-99 radomes were modified to this configuration. Future requirements for these radomes will be met by new production, vice modification, as there are no more existing assets to modify. ALQ-99 Radomes are Weapons Replaceable Assemblies that are readily removed and installed in the ALQ-99 Pod, thus no installation effort/funding is associated with this program. This capability will be available for all EA-6B/EA-18G aircraft, which includes four Naval Air Reserve aircraft. ALQ-99 received a total of $1.5M in FY06 Congressional add and $1.653M in GWOT Supplemental funding.

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DEVELOPMENT STATUS / MAJOR DEVEL
DEVELOPMENT MILESTONES: LBT program is proceeding through remainder of E&MD.LRIP IA decision was awarded 1st quarter FY2005 and LRIP IB decision was awarded 3rd quarter 2006.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS (A KITS)																						
INSTALLATION KITS N/R																						
INSTALL EQUIPMENT (B KITS)	2,575	199.9																				
ALQ 99 BAND TWT IM		2.0			1	*	1	*														
BAND 9/10 GFE		0.3																				
BAND 9/10 RADOME	260	4.9																				
BAND 9/10 TRANSMITTER	235	132.8																				
LOWBAND TRANSMITTER	17	26.3			3	10.2	10	19.5	22	31.3												
PAO TRANSMITTER MOD	1,296	5.8																				
REPAIR OF GFE(UEU)		6.2																				
UNIVERSAL EXCITER UPGRADE	480	223.3																				
INSTALL EQUIPMENT N/R		21.8		0.8		0.1		0.1		0.1												
ECO		1.3																				
DATA		9.7		0.2		0.1		0.1		0.1												
TRAINING EQUIP		1.6				0.1																
SUPPORT EQUIP	6	101.2		0.9		0.7		0.3		0.1												
ILS		4.3																				
OTHER SUPPORT		54.4		4.7		3.4		2.0		2.0												
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	1,207	18.9																				
TOTAL PROCUREMENT	6,076	814.5		6.6	4	14.4	11	21.8	22	33.4												

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Notes:

1. UEU Repair of GFE costs are included in the UEU Installed Equipment line.
2. Install schedules not provided for GFE that fits into the POD without structural modification, or for equipment not requiring APN-5 funding for installation into the POD/aircraft (e.g.: LBT, UEU).
3. Total Band 9/10 Transmitters include 5 EDM's.
4. $1.5M FY05 Supplemental was added for ALQ-99 TJS Band 4 Sustainment. $1.653M FY06 GWOT Supplemental was added for TJS Pods.
5. $11M added to FY05 from OSIP 01-01 (ICAP III kit). Funding realigned from ICAP III to purchase 7 additional LRIP LBTs for Early Operational Capability (EOC) in support of GWOT.
6. LBT quantities increased in FY08-FY11 due to additional funding provided throughout FYDP.
7. $7.5M moved from FY06 LBT to OSIP 01-01 (ICAP III kit).
8. Quantity of 16 LBTs were bought in FY06 with United States Army Force Protection funds.

Exhibit P-3a

MODIFICATION TITLE: EA-6B STRUCTURAL IMPROVEMENTS(OSIP 032-85)

MODELS OF SYSTEMS AFFECTED: EA-6 SERIES TYPE MODIFICATION: Safety of Flight

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

ASN-130A REPLACEMENT: Funding for this upgrade was provided via a Cost Reduction Effectiveness Improvement Council (CREIC) initiative during the POM-02 process. The aging ASN-130A will be replaced with the ASN-172, with a combined inertial navigation/GPS system 2nd EGI. Reliability and maintainability will be improved. Outer Wing Panel (OWP) replacement program includes ongoing fatigue life expenditure (FLE) analysis. The solution may range from an airframe change to improve FLE to replace the OWP to ensure the EA-6B availability through FY-2015. In FY02 received supplemental in the amount of $25M to procure up to 3 additional Outer Wing Panels. Also received $4.25M DERF funds for OWP production line start up andtooling lin FY02. Received $60M FY03 Supplemental for OWP in 2003 and $70M FY04 Supplemental for OWP and $15M for WCS acceleration (of which $29.3M of OWP and $3.5M of WCS acclleration was recinded; a total of $32.8M). 47 total OWP sets are on contract.

MISSION REPROGRAMMING UNIT (MRU): This update to DSMU resulted from an Affordable Readiness Initiative (ARI) that provides an upgrade to the existing memory input/output capability of the mission computer.Tape driven devices which are no longer being produced are being replaced with PCMCIA cards that are more reliable and maintainable.Funding for this upgrade resided in OSIP 01-01 during the PB01. EA-6B Power PC initiative: This initiative proposes to add a COTS PowerPC processor to the AYK-14, XN-11/CP-2357. This special EA-6B AYK-14 chassis has already been upgraded to support COTS SRAs on its VME backplane. Funding is required for COTS hardware (Processor SRA) and integration kit (Memory Bridge SRA), addition of a few laboratory support tools, development testing, and modification to technical publication source data and maintenance plans.

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

EA-6B DIGITAL FLIGHT CONTROL SYSTEM (DFCS): The DFCS program comprises the adaption of existing Digital Flight Control Computer (DFCC) and Digital Control Panel (DCP) to replace the existing Air Navigational Computer (ANC) and control panel presently fitted to the EA-6B aircraft. This replacement DFCS will be configured to ensure only the minimum number of aircraft changes are required. Intended to eliminate the problem of spurious inputs to Flight Control Systems. Structural Data Recording System (SDRS) and G-Meter Replacement: The SDRS provides a more accurate recording of the g-force hits on the aircraft. The air crew is reporting disparities between cockpit G-meter and SDRS up to 0.7g difference between the read outs. The cockpit G-meter and the g forces recorded by the SDRS. The current cockpit G-meter is an analogy design meter and the replacement G-meter is a digital design. Data provided to the cockpit G-meter will be taken from the motion pick-up transducers as does the SDRS. As a secondary mode, the replacement G-meter has the capability to function independently of the motion pick-up transducer input. Installs are scheduled as part of ICAP II Block 3 installations.

EA-6B FLIGHT CONTROL SURFACE UPGRADES: Upgrade of current EA-6B primary flight control surfaces, which include Inboard Slats, Rudders, Outboard Flaps and Horizontal Stabilizers, due to material condition. Utilizing Phosphoric Acid Anodized (PAA) Honeycomb Core technology will improve operational availability of flight control surfaces by 60%. Bond durability between the face and core sheets and corrosion resistance is significantly improved and reduces total ownership costs by 30%. Additionally, some structural surfaces will be upgraded to improve operational availability per engineering analyses. EA-6B Hydraulic System Upgrades: Hydraulic System Improvements, based on current technology, are available to improve legacy components on the EA-6B. Upgrades to the hydraulic actuators to include new technology seals to prevent leakage, new barrels and endcaps to improve operational reliability and reduce FLE on components. FLE can be improved by as much as 65% with this technology. Hydraulic reservoir upgrade to include, replacement of endcap to reduce safety impact, and improve operational availability. Hydraulic pumps will be replaced with a similar design used on the F-16 and planned for the B-52, which offers six times greater reliability and improved maintainability.

EA-6B AIRCRAFT WIRING UPGRADE: The wiring originally installed during OEM production of the EA-6B aircraft and Weapons Replaceable Assemblies (WRAs) has continued to degrade over time. Much of the wiring originally installed conformed to specifications that have since been superceded. Post production engineering analyses have also been conducted that indicate some of the wiring originally installed has potential for severe degradation, which results in increased possibility of electrical arcing and fire hazard. Additionally, EA-6B avionics systems will be upgraded to improve operational availability, per engineering analyses. Additionally, EA-6B avionics systems will be upgraded to improve operational availability, per engineering analyses.

EA-6B USQ-113: Proposed upgrade to USQ-113 communications jamming system includes a jam toggle mode switch package, high power amplifier, and transmitter antenna that will enable the USQ-113 to maintain pace with evolving target sets. USQ-113 received a total of $9.5M in FY05 Supplemental funding. $4.005M FY06 Supplemental GWOT funds provided for the upgrade to the USQ-113 communications jamming system which will modify existing hardware to enhance the jamming effectiveness of the system by increasing the number of modulation types from three to twelve. This upgrade would enable the USQ-113 to be effective against high priority targets that the current system cannot achieve.

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

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

FINANCIAL PLAN: (TOA, $ IN MILLIONS) EA-6B STRUCTURAL IMPROVEMENTS (OSIP 032-85)\

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
PRIOR YR (A Kits)	3,101	36.3																				
2ND EGI/ ASN-130A	113	1.1																				
AIRCRAFT WIRING UPGRADE			44	1.5	44	1.5	20	0.8														
AN/USQ-113 KITS	168	17.1																				
DFCS	51	2.3	24	0.6	43	1.1																
FLIGHT CONTROL			74	4.0	28	1.5	6	0.4														
HYDRAULIC SYSTEMS UPGRADE			88	10.6	17	2.1	3	0.5														
OUTER WING PANEL	1	25.0																				
OUTER WING PANEL (SUPP)	47	130.1																				
SDRS Kit	122	1.7																				
USQ-113 EXT A KITS (SUPP)	1	3.9	1	2.9																		
WING CENTER SECTION	114	335.9																				
INSTALLATION KITS N/R	4	47.2		2.5																		
INSTALL EQUIPMENT																						
PRIOR YR EQUIPMENT (B Kits)	1,949	89.3																				
ASN-130A REPLACEMENT/2ND EGI	1	4.2																				
DFCS	49	6.3	24	3.0	43	6.0																
EJECTION SEAT		0.2	1	0.1																		
MISSION REPROGRAMMING		11.2																				
POWER PC INTEGRATION	2	3.0	1	0.5	1	0.5																
USQ-113 EXT B KITS (SUPP)	1	1.6																				
USQ-113 TOG B KITS (SUPP)	1	2.2	1	0.1																		
INSTALL EQUIPMENT N/R		37.7		4.9		0.5		0.2														
ECO		2.1		0.6																		
DATA		12.5		0.6		0.6		0.3														
TRAINING EQUIP	15	3.3		0.1																		
SUPPORT EQUIP		15.1																				
ILS		2.8		0.5		0.4		0.3														
OTHER SUPPORT		72.4		3.0		3.7		4.5		0.2												
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	1,059	119.8	270	12.6	115	5.3	72	1.8														
TOTAL PROCUREMENT	6,799	984.0	528	48.0	291	23.0	101	8.8		.2												

1. $3.0M FY05 Supplemental funding received for USQ-113 Upgrade.
2. $6.5M FY05 Supplemental funding received for USQ-113 Frequency Improvement Upgrade.
3. Breakout of FY05 USQ-113 (Supplemental) totaling $9.5M [$3.870M Install Kits, $800K Install Kits NR, $3.780M Install Equipment,$7K Training Equipment, $818K Install Costs, $225K Other Support].
4. Productive Ratios under Aircraft Wiring Upgrade, Flight Control, and Hydraulic Systems Upgrade is comprised of a variety of different kit combinations per aircraft. Quantity shown is projected kit combinations per aircraft
5. Breakout of FY06 USQ-113 Enhanced Jamming Capabilities Upgrade (GWOT Supplemental) totaling $4.078M [$2.864M Install Kits, $910K Install Kits NR, $100K Install Equipment,$44K Data, $37K Training Equipment, $50K Other Support].

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

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DD Form 2454, Jun 86

Exhibit P-3a

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

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Turn-Key for FY97 Procurement. Commercial & Organic Installs FY98 and out.

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 24 Months

CONTRACT DATES: FY 2006 N/A FY 2007 N/A FY 2008 N/A FY 2009 N/A

DELIVERY DATE: FY 2006 N/A FY 2007 N/A FY 2008 N/A FY 2009 N/A

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (114) kits	102	85.6	10	11.0	2	3.3																
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
Total	102	85.6	10	11.0	2	3.3	0	0.0	0	0.0												

1. As result of the WCS acceleration efforts production leadtime was reduced from 28 months to 24 months.

2. Total of 114 aircraft includes 1 stricken aircraft.

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	102	4	2	2	2	1	1														
Out	84	4	4	2	2	4	3	4	3	2	2										

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

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

Totals may not add due to rounding
DD Form 2454, Jun 86

Exhibit P-3a

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

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Mod Team/Organic.

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 5 Months

CONTRACT DATES: FY2006 N/A FY2007 N/A FY2008 N/A FY2009 N/A

DELIVERY DATE: FY2006 N/A FY2007 N/A FY2008 N/A FY2009 N/A

($ in Millions)

Cost:	PRIOR YEARS		FY2006		FY2007		FY2008		FY2009		FY2010		FY2011		FY2012		FY2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (122) kits	122	2.0																				
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
Total	122	2.0	0	0.0	0	0.0	0	0.0	0	0.0												

Installation Schedule

	PRIOR YEARS	FY2006				FY2007				FY2008				FY2009				FY2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	122																				
Out	122																				

	FY2011				FY2012				FY2013					
	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Total
In														
Out														

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

Totals may not add due to rounding
DD Form 2454, Jun 86

Exhibit P-3a

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

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Organic Installations.

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 3 Months

CONTRACT DATES: FY2006 N/A FY2007 N/A FY2008 N/A FY2009 N/A

DELIVERY DATE: FY2006 N/A FY2007 N/A FY2008 N/A FY2009 N/A

($ in Millions)

Cost:	PRIOR YEARS		FY2006		FY2007		FY2008		FY2009		FY2010		FY2011		FY2012		FY2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (113) kits	108	1.5	5	0.3																		
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
Total	108	1.5	5	0.3	0	0.0	0	0.0	0	0.0												

Installation Schedule

	PRIOR YEARS	FY2006				FY2007				FY2008				FY2009				FY2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	108	1	2	2																	
Out	101	3	3	2	2	2															

	FY2011				FY2012				FY2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

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

Totals may not add due to rounding
DD Form 2454, Jun 86

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: 2 Months PRODUCTION LEADTIME: 8 Months

CONTRACT DATES: FY2006 Jan 06 FY2007 Jan 07 FY2008 Jan 08 FY2009 N/A

DELIVERY DATE: FY2006 Sep 06 FY2007 Sep 07 FY2008 Sep 08 FY2009 N/A

($ in Millions)

Cost:	PRIOR YEARS		FY2006		FY2007		FY2008		FY2009		FY2010		FY2011		FY2012		FY2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (51) kits	2	1.2	49	1.0																		
FY 2006 (24) kits					24	1.0																
FY 2007 (43) kits							43	1.7														
FY 2008 () kits																						
FY 2009 () kits																						
Total	2	1.2	49	1.0	24	1.0	43	1.7	0	0.0												

1. Prior Year Quantity accounts for 1 Test and 1 Val/Ver Aircraft (bought as install equipment N/R).

2. Total to include 8 installs for Trainer Aircraft.

3. The (DFCS) Program quantity and schedule adjustments were the result of budget constraints. The original program called for 119 aircraft to have the current AFCS replaced with DFCS. However the independent cost estimate completed after the PB process determined that this plan exceeded the funding available. The DFCS program has since been de-scoped.

Installation Schedule

	PRIOR YEARS	FY2006				FY2007				FY2008				FY2009				FY2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	2		10	13	13	13	4	10	10	10	10	11	12								
Out	2		8	10	13	13	6	10	10	13	10	11	12								

	FY2011				FY2012				FY2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

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

Totals may not add due to rounding
DD Form 2454, Jun 86

Exhibit P-3a

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

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Turn-Key for FY97 Procurement. Commercial & Organic Installs FY98 and out.

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY2006 Oct 05 FY2007 Oct 06 FY2008 Oct 07 FY2009 N/A

DELIVERY DATE: FY2006 Apr 06 FY2007 Apr 07 FY2008 Apr 08 FY2009 N/A

($ in Millions)

Cost:	PRIOR YEARS		FY2006		FY2007		FY2008		FY2009		FY2010		FY2011		FY2012		FY2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS () kits																						
FY 2006 (74) kits			74	*																		
FY 2007 (28) kits					28	*																
FY 2008 (6) kits							6	*														
FY 2009 () kits																						
Total	0	0.0	74	*	28	*	6	*	0	0.0												

1. * indicates amount less than $100K.

Installation Schedule

	PRIOR YEARS	FY2006				FY2007				FY2008				FY2009				FY2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In				40	34			14	14			6									
Out				30	30	14		14	14			6									

	FY2011				FY2012				FY2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

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

Totals may not add due to rounding
DD Form 2454, Jun 86

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: EA-6B Series Modifications MODIFICATION TITLE: Hydraulic Systems Upgrade

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Organic Installations.

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY2006 Oct 05 FY2007 Oct 06 FY2008 Oct 07 FY2009 N/A

DELIVERY DATE: FY2006 Apr 06 FY2007 Apr 07 FY2008 Apr 08 FY2009 N/A

($ in Millions)

Cost:	PRIOR YEARS		FY2006		FY2007		FY2008		FY2009		FY2010		FY2011		FY2012		FY2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS () kits																						
FY 2006 (88) kits			88	0.2																		
FY 2007 (17) kits					17	*																
FY 2008 (3) kits							3	*														
FY 2009 () kits																						
Total	0	0.0	88	0.2	17	*	3	*	0	0.0												

1. * indicates amount less than $100K.

Installation Schedule

	PRIOR YEARS	FY2006				FY2007				FY2008				FY2009				FY2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In				44	44			17				3									
Out				30	30	28		17				3									

	FY2011				FY2012				FY2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

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

Totals may not add due to rounding
DD Form 2454, Jun 86

Exhibit P-3a

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

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Organic Installations.

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY2006 Oct 05 FY2007 Oct 06 FY2008 Oct 07 FY2009 N/A

DELIVERY DATE: FY2006 Apr 06 FY2007 Apr 07 FY2008 Apr 08 FY2009 N/A

($ in Millions)

Cost:	PRIOR YEARS		FY2006		FY2007		FY2008		FY2009		FY2010		FY2011		FY2012		FY2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS () kits																						
FY 2006 (44) kits			44	*																		
FY 2007 (44) kits					44	*																
FY 2008 (20) kits							20	*														
FY 2009 () kits																						
Total	0	0.0	44	*	44	*	20	*	0	0.0												

1. * indicates amount less than $100K.

Installation Schedule

	PRIOR YEARS	FY2006				FY2007				FY2008				FY2009				FY2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In				22	22			22	22			10	10								
Out				20	20	4		20	20	4		10	10								

	FY2011				FY2012				FY2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

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

Totals may not add due to rounding
DD Form 2454, Jun 86

Exhibit P-3a

MODIFICATION TITLE: J-52 ENGINES(OSIP 111-87)

MODELS OF SYSTEMS AFFECTED: EA-6 SERIES TYPE MODIFICATION: Reliability Upgrade

DESCRIPTION / JUSTIFICATION: J52 Engine Improvements: The J52 engine is a legacy gas turbine engine, which powers the EA-6B and has been in service since the 1960's. This initiative will capitalize on R&D efforts funded through the Engine Component Improvement Program (CIP) and OMN funded analysis of engine failure modes. Specific reliability discrepancy trends have been identified and appropriate Engineering Change Proposals (ECP) and Power Plant Changes (PPC) have been developed to address the risk of uncontained turbine blade failures and improve engine reliability and time on wing. The results include an improved Turbine Exhaust Case (TEC) that provides low pressure turbine (LPT) containment and other durability and reliability improvements designed to increase engine time on wing. 20 TEC kits were purchased in June 2004 and were delivered in FY06. Funding will also be used for the Power Trim Indicator system and engineering and logistics labor required to complete development of maintenance planning products across all 10 ILS elements. Efforts include the analysis of J52 data, maintenance plan, Level of repair analysis, reliability centered maintenance to establish preventive maintenance schedules, development of technical manuals, provisioning technical documentation, and logistics support tail for associated support equipment. Also includes the development of source data, and limits to revise engine build standards in order to meet J52 reliability goal of 760 hours time on wing.

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

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
INSTALLATION KITS	218	25.5	32	0.1	38	0.1																
INSTALLATION KITS N/R		0.3		*																		
INSTALL EQUIPMENT																						
INSTALL EQUIPMENT N/R		1.1																				
ECO																						
DATA		0.2																				
TRAINING EQUIP																						
SUPPORT EQUIP		5.7		*		*																
ILS		1.3																				
OTHER SUPPORT		14.2		0.1		0.1																
INTERIM CONTRACTOR SUPPORT																						
TOTAL PROCUREMENT	218	48.2	32	.3	38	.3																

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

Notes:

1. Funding provided within the FYDP reflects an approved Reduction in Total Ownership Cost (RTOC) initiative.
2. Installations will be performed concurrently with Standard Depot Level Maintenance (SDLM), Engine Overhauls and other O&M,N funded efforts.

Exhibit P-3a

MODIFICATION TITLE: BLOCK 89A AVIONICS I(OSIP 042-93)

MODELS OF SYSTEMS AFFECTED: EA-6 SERIES TYPE MODIFICATION: Safety of Flight/Reliability

DESCRIPTION / JUSTIFICATION: This omnibus Operational and Safety Improvement Program covers EA-6B ICAP II Block 89A Avionics systems modifications to install required communications, navigation, and miniaturized technology improvements. The avionics common systems upgrade includes incorporation of: (1) AN/ARC-210 VHF/UHF radios having SINCGARS and HAVEQUICK modes for inter-operability with Air Force, ground, and NATO forces. (2) The Embedded GPS Inertial Navigation System (EGI) provides a closely coupled GPS-INS solution and replaces the ASN-50 AHRS which has very poor reliability. (3) Full integration of the Electronic Flight Instrumentation System (EFIS), Control Display Navigation Unit (CDNU), and Digital Signal Data Converter (DSDC), which were installed as part of AFC778-779. This OSIP provides for upgrade of the DSDC for use in Block 89A. The DSDC functions as an interface unit for the EFIS and is connected to the 1553 Navigation data bus to provide additional navigation data to the aircrew. (4) The AYK-14 computer will be upgraded with Very High Speed Integrated Circuit Technology (VHSIC) improving processing, memory, and throughput. The upgraded computer (CP-2357) will retain the outer form factor of the current computer and incorporate a new backplane that supports the new VHSIC processor Module and provides VME-bus expansion slots. Discrete and Serial Modules (DSM) replace the Serial Interface Module-A (SIM-A) cards. (5) Mission Planning System: The AN/TSQ-142 Mission Planner provides operational flight program loading, maps, EW libraries, jammer techniques, HARM data, and performs data reduction. Modifications to the AN/TSQ-142 are required to support the Block-89A upgrade, and to support transition of EA-6B MPS. (6) Misc. Avionics: Additional Engineering Change Proposals (ECP) and procurement of avionics, such as ARC-199 Radios, CIU/E, HARM, Dual EGI, and Night Vision capability in all aircraft. $1.371M FY06 Supplemental GWOT funds provided for the Exterior NVD Lighting System. Inherent system design failure caused a rewrite of the techical directive and forced design changes to the Exterior Lighting control box, which will have to be retrofitted to all EA-6B aircraft.

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

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
BLOCK 82 TO 89A CABLES OWP	44	43.6																				
BLOCK 82 TO 89A KIT	20	59.5																				
BLOCK 89 TO 89A KIT	46	15.4																				
INSTALLATION KITS N/R	8	61.4																				
INSTALL EQUIPMENT																						
AN/AYK-14	45	8.4																				
ARC210 EQUIP	50	5.6																				
ARC210, USQ-113	60	3.0																				
BLOCK 82 TO 89A EQUIP	26	16.4																				
BLOCK 89 TO 89A	30	2.0																				
CIU/ENCODER/CDNU	66	18.6																				
EGI	21	1.2																				
NVD EQUIP (Supplemental)			56	0.4																		
NVD EQUIP	122	12.6																				
INSTALL EQUIPMENT N/R	2	8.2		0.6																		
ECO		0.5																				
DATA		12.4																				
TRAINING EQUIP		13.4																				
SUPPORT EQUIP		44.2																				
ILS		9.3		0.2		0.3																
OTHER SUPPORT		94.4		3.7		1.3																
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	225	109.4	12	4.5	54																	
TOTAL PROCUREMENT	765	539.4	68	9.4	54	1.6																

1. $1.37M FY06 Supplemental funding received for NVD Upgrade.

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

Totals may not add due to rounding
DD Form 2454, Jun 86

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: EA-6B Series Modifications MODIFICATION TITLE: BLOCK 89A AVIONICS I(OSIP 042-93)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Commercial and Organic Installations

ADMINISTRATIVE LEADTIME: 0 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2006 N/A FY 2007 N/A FY 2008 N/A FY 2009 N/A

DELIVERY DATE: FY 2006 N/A FY 2007 N/A FY 2008 N/A FY 2009 N/A

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (113) kits	108	88.7	5	4.3																		
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
Total	108	88.7	5	4.3	0	0.0	0	0.0	0	0.0												

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	108	1	2		2																
Out	99	2	4	4		1	3														

	FY 2011				FY 2012				FY 2013					
	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Total
In														
Out														

1. Three (3) Kits Procured by Navy Reserve in FY03. Aircraft Transferred to Active Navy.

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

Totals may not add due to rounding
DD Form 2454, Jun 86

Exhibit P-3a

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

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Organic Installations

ADMINISTRATIVE LEADTIME: 0 Months PRODUCTION LEADTIME: 0 Months

CONTRACT DATES: FY 2006 N/A FY2007 N/A FY2008 N/A FY2009 N/A

DELIVERY DATE: FY 2006 N/A FY2007 N/A FY2008 N/A FY2009 N/A

($ in Millions)

Cost:	PRIOR YEARS		FY2006		FY2007		FY2008		FY2009		FY2010		FY2011		FY2012		FY2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (122) kits	117	2.3	5	*																		
FY 2006 (56) kits			2	0.2	54																	
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
Total	117	2.3	7	0.2	54	0.0	0	0.0	0	0.0												

Installation Schedule

	PRIOR YEARS	FY2006				FY2007				FY2008				FY2009				FY2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	117	5			2	15	15	15	9												
Out	117				5	2	15	15	15	9											

	FY2011				FY2012				FY2013					
	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Total
In														
Out														

1. NVD installation costs are not budgeted on an annualized basis as the cost to procure and install kits were provided as part of an FY00 Congressional plus-up and FY06 GWOT Supplemental.

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

Totals may not add due to rounding
DD Form 2454, Jun 86

Exhibit P-3a

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

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Following a Full and Open Competition, Milestone II approval was received, and an EMD RDT&E development contract was awarded to the Northrop Grumman Corporation in March 1998. Following a DT/OT test period, completion of an OA and an LRIP decision, an LRIP contract was awarded in FY03. Following completion of OPEVAL and a Milestone III decision, a full rate production contract was awarded 2nd quarter FY06.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
ICAP III	10	69.9	4	46.1																		
INSTALLATION KITS N/R		0.1		2.2																		
INSTALL EQUIPMENT																						
INSTALLATION EQUIPMENT		4.7																				
INSTALL EQUIPMENT N/R		1.7																				
ECO																						
DATA		1.4		*																		
TRAINING EQUIP	2	72.4																				
SUPPORT EQUIP		14.8		2.3																		
ILS		0.8		2.5																		
OTHER SUPPORT		9.2		5.6																		
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	10	10.8			4	8.3																
TOTAL PROCUREMENT	22	185.7	4	58.7	4	8.3																

1. Installation costs include Repair Incident to Modification (RIM) efforts in FY06 and out.
2. Total quantity of 35 ICAP III kits does not include 2 kits procured/installed via the E&MD program.
3. FY05 includes Congressional add for $6.3M for ICAP III Weapons Systems Trainer.
4. $7.5M reprogramed into FY06 from OSIP 19-79.

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

Totals may not add due to rounding
DD Form 2454, Jun 86

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: 5 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2006 Mar 06 FY 2007 N/A FY 2008 N/A FY 2009 N/A

DELIVERY DATE: FY 2006 Mar 07 FY 2007 N/A FY 2008 N/A FY 2009 N/A

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (10) kits	10	10.8																				
FY 2006 (4) kits					4	8.3																
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
FY 2012 () kits																						
FY 2013 () kits																						
TO COMPLETE																						
Total	10	10.8	0	0.0	4	8.3	0	0.0	0	0.0												

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

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

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

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	10						1	2	1												
Out	10							1	1	1	1										

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

1.Two (2) aircraft kits were developed and installed in EA-6B EMD RDT&E program.

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

Totals may not add due to rounding
DD Form 2454, Jun 86

Exhibit P-3a

MODIFICATION TITLE: MIDS/LINK 16(OSIP 005-03)

MODELS OF SYSTEMS AFFECTED: EA-6 SERIES TYPE MODIFICATION: Safety of Flight/Reliability

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

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: The MIDS LVT is a common DoD system. The Navy will procure an existing ICS system based on requirements and via a competitive contract. The AYK-14 XN-11 Ethernet modification is complete.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
MIDS A Kits	10	0.4	4	0.1																		
MIDS B Kits	10	3.8	4	2.0																		
INSTALLATION KITS N/R																						
INSTALL EQUIPMENT																						
INSTALLATION EQUIPMENT	26	4.9	3	0.5																		
INSTALL EQUIPMENT N/R																						
ECO																						
DATA		0.2																				
TRAINING EQUIP		1.4		0.5		0.1																
SUPPORT EQUIP		0.1				0.1																
ILS		0.2		0.1		0.1																
OTHER SUPPORT		7.9		1.5		0.9																
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	10	1.7			4	0.2																
TOTAL PROCUREMENT	56	20.6	11	4.7	4	1.2																

Notes:

1. Total of 35 Kits include 4 which are used for labs and test aircraft and will not be operational aircraft.
2. A Kits = provisions including cables, brackets, and interface devices. B Kits = LINK 16 black box.
3. MIDS Installation Equipment (i.e. companion equip: CXP, AYK, ICS) is required for ICAP II 89A Block III Aircraft whether it is upgraded to ICAP III or not.

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

Totals may not add due to rounding
DD Form 2454, Jun 86

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: EA-6B Series Modifications MODIFICATION TITLE: MIDS/LINK 16(OSIP 005-03)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Field and Depot Install

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2006 Mar 06 FY 2007 Mar 07 FY 2008 N/A FY 2009 N/A

DELIVERY DATE: FY 2006 Mar 07 FY 2007 Mar 07 FY 2008 N/A FY 2009 N/A

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (10) kits	10	1.7																				
FY 2006 (4) kits					4	0.2																
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
FY 2012 () kits																						
FY 2013 () kits																						
TO COMPLETE																						
Total	10	1.7	0	0.0	4	0.2	0	0.0	0	0.0												

1. Aircraft are inducted one month before kit delivery.

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

3. MIDS Installation Equipment (i.e. companion equip: CXP, AYK, ICS) is required for ICAP II 89A Block III Aircraft whether it is upgraded to ICAP III or not.

4. MIDS A & B Kits are installed at the same time. Above quantity reflects a combined installation of A & B kits.

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	10					1	2	1													
Out	10						1	1	1	1											

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

1. Total of 35 Kits include 4 which are used for labs and test aircraft and will not be operational aircraft.

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

Totals may not add due to rounding
DD Form 2454, Jun 86

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2007	
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy / APN5 Aircraft Modifications**							P-1 ITEM NOMENCLATURE **051400, AV-8 SERIES**					
Program Element for Code B Items:							Other Related Program Elements					
	PRIOR YEARS	ID Code	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
QUANTITY												
COST (In Millions)	511.0	A	47.2	57.5	37.5	51.7	37.3	29.2	23.0	22.6	125.6	925.9

DESCRIPTION: This line item funds modifications to AV-8B aircraft. The AV-8B is a single engine, single crewmember aircraft capable of vertical/short take-off and landing (V/STOL) operations. The AV-8B meets the Marine Corps requirements for a light attack aircraft to provide responsive offensive air power that can operate at austere forward bases in direct support of ground forces. The overall goal of the modifications budgeted in FY 2008 is to continue incorporation of Operational and Safety Improvements to the aircraft; continued update of TAV-8B trainer aircraft to better align with operational aircraft; continued incorporation of OSCAR; incorporation of Readiness Management Plan structural changes; and incorporation of AV-8B F402-RR-408 Engine safety and operational changes.

The AV-8B active inventory (21 June 2005) consists of 4 major configurations:
17 two-seat TAV-8B aircraft,
5 DAY Attack aircraft,
38 NIGHT Attack Aircraft, and
92 Night Attack/RADAR aircraft.
Retrofit quantities of each ECP depend on the aircraft configuration type if & when the change was introduced into production.

*$33.9M received in FY 2007 Title IX.

OSIP No. / DESCRIPTION	PRIOR YEARS	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
001-91 OMNIBUS O&S IMPROVEMENTS	93.8	0.8	1.5	0.1							96.1
003-96 KAPTON WIRE REPLACEM	36.4		5.5								42.0
025-99 TAV-8B PERFORMANCE UPGRADE	107.4	0.6	4.4	*							112.4
023-00 AV-8B LITENING POD	192.6	1.7	7.5	5.2	7.2	4.8	2.4	2.1	2.3		225.8
012-02 OPEN SYSTEMS CORE AVIONICS REQUIREMENT	62.6	27.0	8.4	7.9	7.3	2.8					116.0
002-04 ENGINE LIFE MANAGEMENT PROGRAM	10.1	3.1	3.7	2.7	5.6	7.5	6.5	7.5	6.9	16.5	70.1
025-04 ALE-47	5.7	4.8									10.5
006-06 OBSOLESCENCE REPLACEMENT		9.2	11.0	7.2	14.1	9.2	12.9	13.2	13.5	109.1	199.3
015-07 AV-8 ATTRITION RECOVERY DAY TO NIGHT			15.5	14.4	17.5	13.0	7.5	0.2			68.1
TOTAL	508.4	47.2	57.5	37.5	51.7	37.3	29.2	23.0	22.6	125.6	922.8

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

Totals may not add due to rounding
DD Form 2454, Jun 86

Exhibit P-3a

MODIFICATION TITLE: OMNIBUS O&S IMPROVEMENTS(OSIP 001-91)

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

DESCRIPTION / JUSTIFICATION:
Each ECP description includes the AV-8B configuration affected by the change, and if applicable, when it was introduced into production.
ECP-217, Emergency Battery Backup, provides electrical power to the landing gear in the event of a major power failure - TAV-8B, Day. ECP-246, Canopy Restraint, incorporates an improved pyrotechnic device to provide separation to the pilot on ejection - TAV-8B. ECP-248, Power Lever Angle Unit (PLAU), provides critical in-flight engine control, is being relocated from the engine bay to the cockpit to reduce the failure rate - TAV-8B, Day, Night, and FY99 & prior Radar. ECP-251, Nose Wheel Steering (NWS), a Safety change, provides improved pilot control over nose wheel steering responsiveness for critical landing conditions - TAV-8B, Night, FY96 & prior Radar. ECP-254, Inlet Guide Vane Controller (IGVC), a Safety change, provides improved -408 engine (via RR-ECP-3759) responsiveness during critical maneuvers - TAV-8B, Night, FY96 & prior Radar. ECP-255R1, Digital Flap Controller (DFC), a Safety change, provides improved flap control range and failure response during critical operations - TAV-8B, Day, Night, FY97 & prior Radar. ECP-256, Jet Pipe Temperature (JPT), a Safety change, eliminates the erroneous engine temperature returns - TAV-8B, Night, and FY96 & prior Radar. ECP-257, Digital Electronic Controller Unit (DECU), a Safety change, provides an improved power supply that corrects power interruptions during critical maneuvers - TAV-8B, Night, and FY96 & prior Radar. ECP-269R1, Frame 12, incorporates high vibration structural modifications to absorb increased vibrations which cause fatigue cracks - TAV-8B, Night, & Radar. ECP-271, an improved mounting bracket for the 100% LERX structure reduces maintenance problems and improves readiness - Night, FY96 & prior Radar. ECP-278, installs more durable cables for the Radar Warning Radar System - Night, Radar. ECP-300, Landing Gear Control, replaces the striker pad inside the landing gear control handle. FY07 Title IX funding completes installation of kits in two remaining TAV-8Bs, in order to sustain the training requirements of Marine Fixed Wing Attack Training Squadron 203 (VMAT-203). Pilot Training Rate (PTR) shortfalls since the beginning of OIF compel the addition of these two training aircraft to meet pilot training demand in support of OIF and the Global War on Terrorism (GWOT). Incorporation of the above ECPs is required for the FY07 supplemental requirement for the TAV-8B refurbishment of two TAV-8B trainer aircraft.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:
NWS flight test completed Feb 98. NWS & IGVC V&V completed third quarter FY98. DFC and JPT V&V completed second quarter FY98. DECU V&V completed first quarter FY98 and incorporation initiated. Initial design/ V&V of ECP-217 was completed in 2nd quarter FY90 and a replacement battery was identified in 3rd quarter FY97 to allow final installations. ECP-271 design/V&V was completed 3rd quarter FY99. Installation reinitiated to complete modification program. ECP-278 design completed in 2nd quarter FY99. L660 GTS/APU design was completed 2nd quarter FY97 and rework initiated in 3rd quarter FY97. L580 GTS/APU modification rework was completed in 4th quarter FY97. GEC-11 modification was completed in 4th quarter FY97.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
C1.0 DSM MODULES	154	1.2																				
ECP 254 IGVC	88	0.2																				
ECP-217 BU BATTERY	67	1.2																				
ECP-246 CANOPY RESTRAINT	34	0.7																				
ECP-248 PLAU	54	2.8																				
ECP-251 NWS	94	3.2																				
ECP-255R1 DFC	141	0.3																				
ECP-256 JPT	192	0.1																				
ECP-257 DECU	99	*																				
ECP-269R1 FRAME 12	60	0.7																				
ECP-271 LERX	52	0.2																				
ECP-278 RWR	136	0.8																				
ECP-300 LDG GEAR CTRL HNDL	184	0.8																				
PRIOR YEARS	1,106	12.4																				
INSTALLATION KITS N/R		7.8																				
INSTALL EQUIPMENT																						
ECP 254 IGVC	125	17.1																				
ECP-248 PLAU GFE	54	0.1																				
ECP-255R1 DFC CFE	161	5.4																				
ECP-296 ALR67 ANTENNA	178	0.8																				
INSTALL EQUIPMENT N/R																						
ECO																						
DATA		2.0																				
TRAINING EQUIP		7.8																				
SUPPORT EQUIP		2.3																				
ILS		0.3				0.1																
OTHER SUPPORT		12.0		0.2		0.4		0.1														
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	1,378	13.4	11	0.6	14	0.9																
TOTAL PROCUREMENT	2,979	93.8	11	.8	14	1.5		.1														

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

Exhibit P-3a

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

MODIFICATION TITLE: OMNIBUS O&S IMPROVEMENTS(OSIP 001-91)

INSTALLATION INFORMATION: This reflects multiple ECP installations begun in FY-94. Quantities will not match procurement line due to "O" Level installs. Contractor warranty kits (ECP-271, ECP-269R1) and piece part attrition upgrades.

METHOD OF IMPLEMENTATION: Installation will be accomplished by Naval Aviation Depot Drive In Mod

ADMINISTRATIVE LEADTIME: Various Months

PRODUCTION LEADTIME: Various Months

CONTRACT DATES: FY 2006 Multiple FY 2007 Multiple FY 2008 Multiple FY 2009

DELIVERY DATE: FY 2006 Multiple FY 2007 Multiple FY 2008 Multiple FY 2009

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (1403) kits	1,378	13.4	11	0.6	14	0.9																
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
FY 2012 () kits																						
FY 2013 () kits																						
TO COMPLETE																						
Total	1378	13.4	11	0.6	14	0.9	0	0.0	0	0.0												

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	1378	3	3	3	2	1	1	6	6												
Out	1378	3	3	3	2	1	1	6	6												

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Totals may not add due to rounding

Exhibit P-3a

MODIFICATION TITLE: KAPTON WIRE REPLACEMENT (OSIP 003-96)

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

DESCRIPTION / JUSTIFICATION:
The Kapton Wiring Replacement (ECP-277) S, R & M modification is required to replace the MIL-W-22759 (TEFZEL) wiring in TAV-8B aircraft delivered prior to September 1999. TAV-8Bs with KAPTON (MIL-W-81381) insulated wire suffer from high failure rate due to frequent incidents of chafing resulting in wire fires. The KAPTON (MIL-W-81381) wired airplanes also require frequent and costly maintenance actions to continue flying. Replacement of this wiring is expected to improve aircraft readiness. This modification was introduced in production FY1989 TAV-8B aircraft cum 16 & subsequent which deleted the KAPTON (MIL-W-81341) insulated wiring and replaced it with irradated TEFZEL wiring which is much more resistant to chafing and fire. FY07 Title IX funding provides for the retrofit of the two remaining TAV-8Bs (cum 15 and below) currently in inventory that have not received this ECP, in order to sustain the training requirements of Marine Fixed Wing Attack Training Squadron 203 (VMAT-203). Pilot Training Rate (PTR) shortfalls since the beginning of OIF compel the addition of these two training aircraft to meet pilot training demand in support of OIF and the Global War on Terrorism (GWOT). Incorporation of the KAPTON wiring is required for the FY07 GWOT Title IX supplemental requirement for the TAV-8B refurbishment of two TAV-8B trainer aircraft.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:
This modification was designed and incorporated in all production baseline aircraft delivered after September 1989. AFP not applicable. An installation validation commenced July 2000 and commenced Aug 2001.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
ECP-277 KAPTON WIRING	12	16.3																				
INSTALLATION KITS N/R		2.2																				
INSTALL EQUIPMENT																						
INSTALL EQUIPMENT N/R		0.8																				
ECO																						
DATA		1.0																				
TRAINING EQUIP																						
SUPPORT EQUIP																						
ILS		*				0.7																
OTHER SUPPORT		2.8				0.9																
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	10	13.4			2	3.9																
TOTAL PROCUREMENT	12	36.4				5.5																

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

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: TAV-8B MODIFICATION TITLE: KAPTON WIRE REPLACEMENT (OSIP 003-96)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: AFC installation will be accomplished by Naval Aviation Depot Drive In Mod

ADMINISTRATIVE LEADTIME: 5 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2006 FY 2007 FY 2008 FY 2009

DELIVERY DATE: FY 2006 FY 2007 FY 2008 FY 2009

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (12) kits	10	13.4			2	3.9																
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
FY 2012 () kits																						
FY 2013 () kits																						
TO COMPLETE																						
Total	10	13.4	0	0.0	2	3.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0		

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	10							1	1												
Out	10											1	1								

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Exhibit P-3a

MODIFICATION TITLE: TAV-8B PERFORMANCE UPGRADE(OSIP 025-99)

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

DESCRIPTION / JUSTIFICATION:
Update all AV-8B Trainer aircraft to better align with operational aircraft by incorporating Night Vision Goggle (NVG) lighting and the -408 engine. ECP-276 (NVG lighting) incorporation allows for training of fleet pilots in NVG tactical flight operations during initial AV-8B flight training under the supervision of an instructor pilot. Currently, all NVG training is performed in the operational squadrons in single piloted aircraft after completion of initial pilot training. Earlier introduction of pilot NVG training/proficiency enhances the training environment. Improves configuration standardization with crrent Night/Radar NVG compatible components. ECP-276 is being installed on 17 aircraft currently in the inventory. The -408 engine is not thrust limited to the extent of the current -406A/B engines. ECP-275 (-408 Engine) provisions incorporation will allow expansion of VSTOL training time and increase the vertical landing performance safety margin by 2,000 pounds of thrust. Additionally, initial pilot training will be at the same performance levels experienced in the operational squadrons. Configuration consistency between Trainer and fleet Night/Radar aircraft will also be enhanced. Trainer aircraft cum T16 and above have -408 provisions incorporated and require engines only. Trainer aircraft cum T1 through T15 require both -408 engine provision kits and -408 engines. ECP-275 will be installed on 12 of the 13 T15 & below aircraft currently in the inventory. ECP-288 will field a modified Operational Flight Program to support the full - 408A engine capabilities. ECP-291 installs the Night Attack Display computer. Due to the upgraded engine, Frame 12 stiffeners will be installed on all TAV-8B aircraft concurrently with ECP-275. FY07 Title IX funding provides for the installation of kits in the two remaining TAV-8Bs in order to sustain the training requirements of Marine Fixed Wing Attack Training Squadron 203 (VMAT-203). Pilot Training Rate (PTR) shortfalls since the beginning of OIF compel the addition of these two training aircraft to meet pilot training demand in support of OIF and the Global War on Terrorism (GWOT).

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

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
AFC-273 GFE AFT FOR ECP-276	18	*																				
AFC-273 GFE FWD FOR ECP-276	2	*																				
AFC-398 FR12 FOR ECP-275	12	0.3																				
ECP-275 408 ENGINE	12	4.2																				
ECP-276 NVG--ANNUNCIATOR KIT	17	4.3																				
INSTALLATION KITS N/R		2.6																				
INSTALL EQUIPMENT																						
ECP-275 ENGINES (T1-15)	12	41.7																				
ECP-275 ENGINES (T16-24)	6	20.4																				
ECP-276 ACNIP MOD KIT	18	0.2																				
ECP-276 AIRSPEED IND MOD KIT	52	0.1																				
ECP-276 CDC/CDM MOD KIT	51	1.0																				
ECP-276 EPI MOD KIT	42	0.3																				
ECP-276 FUEL QTY MOD KIT	26	0.1																				
ECP-276 STANDBY ALTIMETERS	36	0.5			2	*																
ECP-288 MSC	14	2.0																				
ECP-288 WMC	17	3.7																				
ECP-291 CFE NA DISPLAY COMPUTER	18	1.7																				
GFE EMU	20	1.2																				
INSTALL EQUIPMENT N/R		0.2																				
ECO																						
DATA		2.3																				
TRAINING EQUIP		0.2																				
SUPPORT EQUIP		0.2																				
ILS						0.2																
OTHER SUPPORT		11.9		0.2		0.6		*														
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	53	8.4	12	0.4	11	3.7																
TOTAL PROCUREMENT	426	107.4	12	.6	13	4.4		*														

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

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: TAV-8B MODIFICATION TITLE: TAV-8B PERFORMANCE UPGRADE(OSIP 025-99)

INSTALLATION INFORMATION:

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

ADMINISTRATIVE LEADTIME: Various Months PRODUCTION LEADTIME: Various Months

CONTRACT DATES: FY 2006 Multiple FY 2007 Multiple FY 2008 Multiple FY 2009

DELIVERY DATE: FY 2006 Multiple FY 2007 Multiple FY 2008 Multiple FY 2009

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (76) kits	53	8.4	12	0.4	11	3.7																
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
FY 2012 () kits																						
FY 2013 () kits																						
TO COMPLETE																						
Total	53	8.4	12	0.4	11	3.7	0	0.0	0	0.0												

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	53	3	3	3	3	1	1	5	4												
Out	53	3	3	3	3	1	1	5	4												

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Totals may not add due to rounding

Exhibit P-3a

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

MODELS OF SYSTEMS AFFECTED: AV-8B Night Attack & Radar/Night Attack TYPE MODIFICATION: Upgrade

DESCRIPTION / JUSTIFICATION:
The system will integrate and procure an external targeting pod that includes an infared (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 capabilites for the AV-8B fleet of Night Attack and Radar/Night Attack 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 to procure additional pods. FY07 supplemental funds are 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 increases 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 the Global War on Terrorism (GWOT).

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 will utilize: existing aircraft software, a weapons station adapter, and Targeting Pod interface software. PEO(A) had approved the acquisition strategy to acquire the pods through an existing USAF contract and provided a targeting pod capability to the Fleet in 1st Qtr FY02. Additional full Litening integration to utilize targeting information from the Litening Pod in OC1.2 to create aircraft targeting solutions will be developed and tested under this OSIP and introduced under the H20 OFP program. Video datalink with the ability to transmit Litening POD video (to Rover III grand stations utilized by froward air controllers) was introduced as Rover upgrades. Station 4 efforts to determine feasbility 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. Future upgrades will include retrofit current Rover Pods with new transmitter and upgrading existing Pods to Rover configuration. Congressionally directed funding in the amount of $1.7M was allocated in FY06 for Litening on Station 4 (Centerline) in support of Global War on Terrorism (GWOT).

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
Litening PD/ROVER	2	4.9																				
Night	44	0.1																				
POD RETROFIT KITS	47	3.9																				
Radar	47	0.1																				
Reman	47	0.1																				
Station 4 Pods					21	0.7			36	1.9												
INSTALLATION KITS N/R		7.9						3.5		3.0												
INSTALL EQUIPMENT																						
CFE PODS	96	124.6			65	2.0																
MULTI STATION	127	1.9																				
INSTALL EQUIPMENT N/R																						
ECO																						
ECO		0.1		1.0																		
DATA		0.6		0.2				0.3		0.3												
TRAINING EQUIP		5.3				3.5		0.3		0.4												
SUPPORT EQUIP		1.6																				
ILS		0.1		0.5																		
OTHER SUPPORT		41.4				1.2		1.0		1.1												
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST									21	0.5												
TOTAL PROCUREMENT	410	192.6		1.7	86	7.5		5.2	57	7.2												

Totals may not add due to rounding

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: AV-8B Night Attack & Radar/Night Attack MODIFICATION TITLE: AV-8B Litening Pod (OSIP 23-00)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Depot Installation

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 11 Months

CONTRACT DATES: FY 2006 FY 2007 Sep-07 FY 2008 FY 2009 Sep-09

DELIVERY DATE: FY 2006 FY 2007 Sep-08 FY 2008 FY 2009 Sep-10

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS () kits																						
FY 2006 () kits																						
FY 2007 (21) kits									21	0.5												
FY 2008 () kits																						
FY 2009 (36) kits																						
FY 2010 (36) kits																						
FY 2011 () kits																						
FY 2012 () kits																						
FY 2013 () kits																						
TO COMPLETE																						
Total	0	0.0	0	0.0	0	0.0	0	0.0	21	0.5												

Installation Schedule

	QTY	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In														5	5	6	5				
Out														5	5	6	5				

	FY 2011				FY 2012				FY 2013					
	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Total
In														
Out														

Exhibit P-3a

MODIFICATION TITLE: OPEN SYSTEMS CORE AVIONICS REQUIREMENT & PRECISION STRIKE(OSIP 012-02)

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

DESCRIPTION / JUSTIFICATION:
The current AV-8B avionics do not have sufficient processor throughput and memory to support planned system upgrade. The OSCAR program will update the existing obsolete avionics using Commercial Off the Shelf (COTS) open system architecture hardware that has object-oriented design (OOD) and higher order language (HOL) software. This OSIP supports the procurement and retrofit installation of the Mission System Computer (MSC), and Warfare Management Computer (AMC) and Warfare Management Computer (WMC) being developed under the OSCAR program. This OSIP also supports the procurement and retrofit installation of MIL-STD-1760 wiring. The installation of the MIL-STD-1760 wiring to support JDAM and other new weapons will require the addition of wiring to the wing, pylons, fuselage, additional circuit breakers, and a new relay panel. ECP-289 ECCM Mod Kits are being installed concurrent with OSCAR to provide the full integration of the Havequick/SINCGARS capability.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:
This system upgrade (ECP-270R2, ECP-285) is the production incorporation of the MSC, WMC and software developed under the OSCAR program. The OSCAR program developed, integrated and operationally tested the new MSC, WMC, and Operational Flight Program software that will use the MK-83 Joint Direct Attack Munitions on the AV-8B as well as full integration of Havequick/SINCGARS. LRIPI decision was approved Feb 02. DT completed 4th quarter FY02. LRIP II decision was approved Apr 03. OPEVAL completed Mar 04 and the final report was received Jul 04. Initial operational capability attained Jun 05. OSCAR was approved MSIII / Full Rate Production 16 Aug 04.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
ECP-270R1 NIGHT	6	1.0	15	2.3	9	1.7	7	1.3														
ECP-270R1 RADAR	24	5.2																				
ECP-270R1 REMAN	26	5.8	9	2.2																		
INSTALLATION KITS N/R																						
INSTALL EQUIPMENT																						
AMC&D/GDAIS	1	*																				
ECP-270R2 AMC	92	11.9	50	5.5																		
ECP-270R2 WMC	90	18.2	45	8.6																		
INSTALL EQUIPMENT N/R		3.1																				
ECO																						
DATA		1.3																				
TRAINING EQUIP		6.6		0.8																		
SUPPORT EQUIP		1.4		1.0		0.6																
ILS				0.2		0.2		0.2		0.2												
OTHER SUPPORT		5.8		1.6		1.2		1.2		1.2												
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	36	2.4	45	5.0	45	4.8	46	5.3	51	5.9												
TOTAL PROCUREMENT	275	62.6	164	27.0	54	8.4	53	7.9	51	7.3												

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

Notes: ECP-289 ECCM Mod kits will be installed concurrent with OSCAR and installation costs will be incurred under OSIP 12-02 Open Systems Core Avionics Requirement and Precision Strike.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: AV-8B Night, AV-8B Night/Radar MODIFICATION TITLE: OPEN SYSTEMS CORE AVIONICS REQUIREMENT & PRECISION STRIKE(OSIP 012-02)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: AFC Installation will be accomplished by Naval Aviation Depot or Commercial DIM or FMT.

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2006 Jan 06 FY 2007 Jan-07 FY 2008 Jan-08 FY 2009 Jan-09

DELIVERY DATE: FY 2006 Jan 07 FY 2007 Jan 08 FY 2008 Jan 09 FY 2009 Jan 10

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (187) kits	36	2.4	45	5.0	45	4.8	31	1.8	30	0.7												
FY 2006 (24) kits							15	3.5	9	2.2												
FY 2007 (9) kits									9	2.2												
FY 2008 (7) kits									3	0.7												
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
FY 2012 () kits																						
FY 2013 () kits																						
TO COMPLETE																						
Total	36	2.4	45	5.0	45	4.8	46	5.3	51	5.9												

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	36	11	11	11	12	12	11	11	11	11	11	12	12	12	13	13	13				
Out	36	11	11	11	12	12	11	11	11	11	11	12	12	12	13	13	13				

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Totals may not add due to rounding

Exhibit P-3a

MODIFICATION TITLE: ENGINE LIFE MANAGEMENT PROGRAM(OSIP 002-04)

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

DESCRIPTION / JUSTIFICATION:
The AV-8B is a single engine aircraft with unique capabilities. The VSTOL enviornment 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.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:
The Engine Life Management Program was developed in October 2000. OSIP 02-04 supports the Harrier AV-8B Engine Life Management Program (ELMP) through APN funding. Power Plant changes are required throughout the aircraft service life as the aircraft ages and operationally revealed deficiencies are discovered, researched and solutions engineered. The Component Improvement Program (CIP), which is RDT&E funded, provides for the developing and demonstrating of the engineered solutions to these deficiencies and through the Engineering Change Proposal (ECP) process the Power Plant changes are initiated. The power plant program procures the necessary kits, installation, non-recurring engineering, and technical data. The kits provided are for engine and propulsion related hardware to support the AV-8B F402 engine such as nozzle guide vanes (NGV), Pilot Lever Angle Units (PLAU), Fuel Control Units, Generator Turbine Starters (GTS) and accessory components, rotors and vanes for compressor sections, power turbines, combustion sections, exhaust ducts, engine monitor systems, and blade and vane coatings and foils to improve Foreign Object Damage (FOD) tolerance. The purpose of the program is to increase safety of flight and operational readiness of the AV-8B F402-RR-408 Engine. The ELMP is comprised of several Engineering Project Description investigations and a series of 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.

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-3641C1/PPC 196
ECP-3647 Improved Alignment of Bulkhead Sealing Rings
ECP-3654R1 PPC218
ECP-3690 Improved clipping of GTS leads - Revised to alleviate design deficiency
ECP-3705R1 Two Piece Bottom Heat Shield ECP- 3754 HP8 Pipe Clamps
ECP-3720 PPC 209
ECP-3733 PPC 213
ECP-3739 PPC 214
ECP-3743 PPC 215
ECP-3745 Combustion Chamber Improvement
ECP-3748 R1 PPC 216
ECP-3763 AYC 1249
ECP-3784 R2 PPC 204
ECP-3800 PPC 223, QEC 3
ECP-3800 PPC 216
ECP-3813 Oil Piping #3 Vane
ECP-3837R1 CuNiIn
ECP-3837 AYC 1284
ECP-3843 Sand Tolerant NGV - Revised NGV's to improve durability and increase
ECP-3848 HPC Casing Manifold Bridge Pipe
ECP-3852 LPC Stage 2 Vanes Hard Coating
ECP-3854 LPC3 Vane Sealing Strip
ECP-3855 LPCI Dampning Foil
ECP-3868 Improved GB Lubrication
ECP-3877 EVICS HMU Introduction of Restrictor - Introduces a repair for dithering (fluctuation) enhancing the reliability.
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-3889 Encapsulated Revision
ECP-3892 LPC Rotor 2 Blade with Revised Stagger Angle
ECP-3893 LPS 1, 2, & 3 Van Serialization
IPPC 227 FDS

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
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 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

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
ECP-3843 SAND TOLERANCE	37	3.1	16	1.2	12	1.0	8	0.8	15	1.6												
ECP-589 MAGNETIC CHIP DETECTOR	309	1.4																				
INSTALLATION KITS N/R		0.1																				
INSTALL EQUIPMENT																						
ECP TBD ENGINE MONITORING SYSTEM									16	1.6												
INSTALL EQUIPMENT N/R										0.2												
ECO																						
DATA		0.3		0.4		0.3		0.2		0.4												
TRAINING EQUIP																						
SUPPORT EQUIP		2.6				0.6		0.2		0.3												
ILS		1.8		1.2		1.3		1.2		1.4												
OTHER SUPPORT		0.8		0.3		0.3		0.3		0.2												
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST					53	0.2	12	0.1	8	*												
TOTAL PROCUREMENT	346	10.1	16	3.1	65	3.7	20	2.7	39	5.6												

EMS Kits are "O" Level Installations. EMS kit quantity is based on the number of aircraft.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: TAV-8B, AV-8B Day, AV-8B Night, AV-8B Night/Radar MODIFICATION TITLE: ENGINE LIFE MANAGEMENT PROGRAM(OSIP 002-04)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Depot Installation

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 15 Months

CONTRACT DATES: FY 2006 Mar 06 FY 2007 Dec-06 FY 2008 Dec-07 FY 2009 Dec-08

DELIVERY DATE: FY 2006 Jun 07 FY 2007 Mar 08 FY 2008 Mar 09 FY 2009 Mar 10

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (37) kits					37	0.2																
FY 2006 (16) kits					16	0.1																
FY 2007 (12) kits							12	0.1														
FY 2008 (8) kits									8	*												
FY 2009 (15) kits																						
FY 2010 (16) kits																						
FY 2011 (10) kits																						
FY 2012 (12) kits																						
FY 2013 (8) kits																						
TO COMPLETE (23) kits																						
Total	0	0.0	0	0.0	53	0.2	12	0.1	8	*												

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In						14	14	13	12		4	4	4		4	4					
Out						14	14	13	12		4	4	4		4	4					

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Totals may not add due to rounding

Exhibit P-3a

MODIFICATION TITLE: ALE-47(OSIP 025-04)

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

DESCRIPTION / JUSTIFICATION:
ALE-47 is a form-fit enhanced functionality countermeasures dispenser system replacement for the obsolete ALE-39. This OSIP installs more reliable digital sequencers and dispenser magazines to improve aircraft readiness. When fully funded, the Warfare Management Computer (WMC) software will be modified to allow full ALE-47 functionality. Congressionally directed funding in the amount of $4.810M was allocated in FY06 for ALE-47 in support of Global War on Terrorism (GWOT).

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Improves aircraft readiness by replacing failure-prone analog sequencers and dispensers.
Positions the AV-8B for future integration of advanced countermeasures expendables and programs.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
INSTALLATION KITS	83	1.6																				
INSTALLATION KITS N/R																						
INSTALL EQUIPMENT																						
INSTALL EQUIPMENT N/R																						
ECO																						
ECO				1.3																		
DATA		0.1		0.3																		
TRAINING EQUIP		*																				
SUPPORT EQUIP																						
ILS		3.3		2.0																		
OTHER SUPPORT		0.7		1.2																		
INTERIM CONTRACTOR SUPPORT																						
TOTAL PROCUREMENT	83	5.7		4.8																		

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

Exhibit P-3a

MODIFICATION TITLE: OBSOLESCENCE REPLACEMENT(OSIP 006-06)

MODELS OF SYSTEMS AFFECTED: TAV-8B, AV-8B Day, AV-8B Night, AV-8B Night/Radar 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 structural and obsolescence solutions. Funds will be utilized to manage and prepare, process and incorporate ECPs and implement changes to sustain and improve AV-8B weapons system readiness including safety, mission availability, structural integrity, and component (avionics/systems) reliability, maintainability, and obsolescence conditions as they arise. 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. The program intends to pursue resolution of ECP-282--Fuel Coupling-- will install new clamshell couplings with safety straps and modify the wing to fuselage fuel interconnect with threaded couplings; ECP-283-- Water Tank Pre-Filter--incorporates a filter to prevent contamination and engine water flow stoppage at the poppet drain valve; ECP-305-- Throttle and Stick Grip, Night Attack and TAV-8B-- replaces obsolete throttle and stick grips with current fleet configuration; ECP-309-- Fuel Bellows Conduit Leak--incorporates a safer double bellows design with increased gage material; ECP-CHPT-042 Center Tank Improvement--Replaces failing fuel tank structural frames 19, 20, 21 with a safer strengthened design; ECP-TBD Aft Structural Modification Improvement-- will install structural sensors/recorders in all aircraft-- to allow early detection and enable design resolution of Frame 43 bulkhead cracking in the area of the vertical tail and horizontal stabilizer to prevent catastrophic failure; ECP-TBD Electronic Altitude Airspeed Sensor (EAAS)--modifies EAAS unit to correct crew ejection safety deficiencies; ECP-TBD Bullet Fairing-- modify to prevent corrosion deterioration of fairing internal structure; ECP-TBD Wedge Frame-- will develop and implement a solution for acoustic resonance fatigue cracking of webs and panels near the auxiliary air doors; ECP-TBD-- Main Landing Gear (MLG) Hand Operating Strut-- redesign to forestall premature strut wear resulting in premature failure of MLG door mechanism; ECP-TBD Frame 16 Nozzle Ring-- provide solution of fatigue cracking in the engine nozzle ring raceway and bulkhead buttresses; ECP-TBD Air Loc Replacement-- modify and replace fasteners for improved retention to reduce FOD; ECP-TBD Frame 30, 31 and 32 Heatshield-- implement solution for heatshield fatigue cracking; ECP-TBD Blast Shields--implement solution for acoustic fatigue failures; ECP-TBD-- Forward ECS Air Ducts-- modify failing staying ties/fasteners which are causing FOD failures in the ECS system; ECP-TBD Display Computers-- modify or replace to address processor obsolesence; power panel, terminal, and circuit breaker reliability improvements; DC Contactor reliability improvements; GAU-12 25MM Gun system reliability improvments; TAV-8B 30KVA Generators-- replace obsolete 20KVA generators and generator control units with current fleet standard 30KVA systems. FY07 Title IX funding provided to procure additional 30KVA generators, due to the fact that the current 20KVA generators will be unsupportable by late 2008 due to obsolesence. Without replacement of the obsolete 20KVA generator units, there will be fewer aircraft ready and available to operate in OIF and the Global War on Terrorism (GWOT). Aircraft will be grounded and current 30KVA spares inventory depleted, resulting in prolonged degraded fleet readiness unless 20KVA generators are replaced with 30KVAs. Failure to replace the obsolete 20KVA units will result in critical obsolesence operational impacts to Fleet Pilot Training Rates (PTR); ECP-TBD Ventral Fin (VFIN) Antenna--replace current deficient, unreliable antennas with an improved design; ECP-307 SAMSU Bleed Air Filtering reliability improvements; ECP-TBD Internozzle Fairing--redesign to prevent premature fatigue and acoustic cracking; ECP-TBD Power Management Indicator/ Engine Monitoring Unit (PMI/EMU)--redesign to eliminate obsolesence issues, and priority emergent safety and obsolesence issues as they arise. Congressionally directed funding in the amount of $2.3M for V-Fin Antenna and $.837M for 25MM Gunbolt Conversion was allocated in FY06 in support of Global War on Terrorism (GWOT).

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:
30KVA Generators to be procured for TAV-8Bs in FY06, as well as Engineering Change Order and ILS work to begin in FY06 for future ECP procurements and installations. Support equipment procurements will begin to support future installations to manage aircraft obsolesence. Other kit buys to begin in FY07 with depot level installations occurring beginning in FY08.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
ECP TBD Bullet Fairing					2	0.2	2	0.2	11	1.2												
ECP-282 Fuel Coupling					37	0.2	36	0.2	33	0.2												
ECP-283 Water Tank Pre-Filter					1	*	37	0.3	33	0.3												
ECP-305 Throttle Stick and Grip					6	0.2	8	0.3	12	0.5												
ECP-CP-042 Ctr Tank Mod			1	*	2	0.1	12	0.5	3	0.1												
ECP-CP-043 Heatshields					2	0.3	3	0.5	11	1.7												
ECP-TBD Aft Structural Mod					2	*	13	0.1	33	0.1												
ECP-TBD Internozzle Fairing					11	*	10	*	33	*												
ECP-TBD Nozzle Ring (Frame 16)																						
ECP-TBD PMI/EMU					11	0.2	20	0.4	33	0.7												
ECP-TBD V-Fin Antenna			150	2.3																		
ECP-TBD Wedge Frame					11	*	10	*	33	*												
INSTALLATION KITS N/R																						
INSTALL EQUIPMENT																						
30KVA Generators			9	2.2	9	3.5																
ECP-TBD Display Computer Kits																						
ECP-TBD EAAS					10	0.1	155	0.9														
INSTALL EQUIPMENT N/R																						
ECO																						
ECO						0.8																
DATA				0.9		1.9		0.6		1.7												
TRAINING EQUIP																						
SUPPORT EQUIP				2.6		1.2		0.7		1.0												
ILS				0.4		0.4		0.3		0.9												
OTHER SUPPORT				0.7		1.2		1.0		1.3												
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST					1	0.6	84	1.2	114	4.2												
TOTAL PROCUREMENT			160	9.2	105	11.0	390	7.2	349	14.1												

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

Totals may not add due to rounding

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: TAV-8B, AV-8B Day, AV-8B Night, AV-8B Night/Radar 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 2006 Multiple FY 2007 Multiple FY 2008 Multiple FY 2009 Multiple

DELIVERY DATE: FY 2006 Multiple FY 2007 Multiple FY 2008 Multiple FY 2009 Multiple

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS () kits																						
FY 2006 (1) kits					1	0.6																
FY 2007 (84) kits							84	1.2														
FY 2008 (114) kits									114	4.2												
FY 2009 (202) kits																						
FY 2010 (199) kits																						
FY 2011 (205) kits																						
FY 2012 (141) kits																						
FY 2013 (61) kits																						
TO COMPLETE (297) kits																						
Total	0	0.0	0	0.0	1	0.6	84	1.2	114	4.2												

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In								1		21	21	21	21	28	28	29	29				
Out								1		21	21	21	21	28	28	29	29				

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Totals may not add due to rounding

Exhibit P-3a

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

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

DESCRIPTION / JUSTIFICATION:
Currently obsolete Day Attack configured AV-8B Harrier aircraft will be restored to baseline configuration, and modified by the contractor as follows: eliminate Kapton wiring,incorporate current configuration -408 engine provisions, EVICS, 30KVA generators, incorporate enhanced nose wheel steering, incorporate -1760 and Litening pod wiring, power wire separation, RWR flex lines, common throttle and stick, night vision lighting/goggle provisions, dual AMPCD instrument panel, Wide Field of View Head-up display (WFOV HUD) and camera, DVMS/DSU and TAMMAC provisions, ARC-210 radios, current fleet released software (with compatible hardware), Frame-12 structural improvements, and compatibility changes necessary for systems integration to achieve a comparable Night Attack fleet baseline configuration. Rolls-Royce Pegasus -408B engines will be provided from current fleet inventory. All modification engineering integration and incorporation of components and systems mentioned above are to be performed by the contractor. All modification kit materials will be delivered fully installed in the completed flight accepted aircraft. FY07 Title IX funding provided to upgrade one Day Attack configured aircraft into a Night capable deployable asset to compensate for attrition and the resultant Primary Aircraft Authorized (PAA) shortfall. Failure to address inventory shortfalls will progressively aggravate the effect of PAA deficiencies on mission availability and combat relevance to support OIF and the Global War on Terrorism (GWOT), as well as operational safety. Current AV-8B inventory is insufficient to maintain 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.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:
Non-recurring engineering, engineering change order work, kit buys, and installs funded with FY07 supplemental to provide one upgraded aircraft in FY09, with subsequent aircraft mods beginning in FY08.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
Installation Kits (A Kits)					1	5.6	1	5.9	2	10.2												
INSTALLATION KITS N/R						4.2																
INSTALL EQUIPMENT																						
Install Equip (B Kits)					1	3.2	1	3.3	2	5.8												
INSTALL EQUIPMENT N/R																						
ECO																						
ECO						0.4																
DATA								3.1														
TRAINING EQUIP																						
SUPPORT EQUIP																						
ILS																						
OTHER SUPPORT						0.4		0.4		0.4												
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST					1	1.7	1	1.8	1	1.2												
TOTAL PROCUREMENT					3	15.5	3	14.4	5	17.5												

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: AV-8B Day Attack 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 2006 FY 2007 Various FY 2008 Various FY 2009 Various

DELIVERY DATE: FY 2006 FY 2007 Various FY 2008 Various FY 2009 Various

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS () kits																						
FY 2006 () kits																						
FY 2007 (1) kits					1	1.7																
FY 2008 (1) kits							1	1.8														
FY 2009 (2) kits									1	1.2												
FY 2010 (1) kits																						
FY 2011 () kits																						
FY 2012 () kits																						
FY 2013 () kits																						
TO COMPLETE																						
Total	0	0.0	0	0.0	1	1.7	1	1.8	1	1.2												

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In									1			1				1					
Out																	1				

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Totals may not add due to rounding

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2007	
APPROPRIATION/BUDGET ACTIVITY: **Aircraft Procurement, Navy / APN5 Aircraft Modifications**							P-1 ITEM NOMENCLATURE: **052200, ADVERSARY**					
Program Element for Code B Items:							Other Related Program Elements					
	PRIOR YEARS	ID Code	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
QUANTITY												
COST (In Millions)	37.9	A	4.4	2.6	3.5	3.6	3.7	3.8	3.9			63.6

DESCRIPTION:

F-5 Aircraft. This line item funds modifications to convert a total of 32 F-5E Aircraft, procured from the Government of Switzerland, into a U.S. Navy approved configuration. It allows the U.S. Navy to maintain as close a standardized configuration with the U.S. Air Force as possible based on need. It also allows the U.S. Navy to initiate unique structural or avionics modifications. The overall goal of the modifications budgeted in FY2008 is to incorporate airframe modifications and selected U.S. Air Force approved Time-Compliance Technical Orders (TCTO's) to improve safety and reliability. This specific modifications budgeted and programmed are for the F-5 Structural Repair Program.

F-16 Aircraft. This line item funds the 14 F-16 Aircraft assigned to Naval Strike and Air Warfare Center (NSAWC), NAS Fallon, Nevada to support the Adversary role of Air Combat Missions training. These Aircraft, in their Adversary mission, improve the air combat maneuvering training received by the aircrews. These aircraft will serve as the U.S. Navy's only dis-similar CAT IV threat replication training asset in service for the foreseeable future. Falcon Up Airframe modifications are required to meet Key Performance Parameter (KPP) threshold of 3,000 hours service life. The F-16A aircraft most likely will not meet the KPP of 3,000 hours without Falcon Up. When coupled with Falcon Up, Falcon Star will extend the life of the F-16 approximately 4,200 Flight hours making the aircraft available for training to approximately FY2018.

OSIP No. / DESCRIPTION	PRIOR YEARS	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
029-81 STRUCTURAL FATIGUE/U	37.9	4.4	2.6								45.0
008-08 F-16 SLEP				3.5	3.6	3.7	3.8	3.9			18.6
TOTAL	37.9	4.4	2.6	3.5	3.6	3.7	3.8	3.9			63.6

Exhibit P-3a

MODIFICATION TITLE: STRUCTURAL FATIGUE/U (OSIP 029-81)

MODELS OF SYSTEMS AFFECTED: F-5 ADVERSARY SERIES

TYPE MODIFICATION: SAFETY/RELIABILITY
VERTICAL STABILIZER
COCKPIT LONGERON
SWISS US CONVERSION

DESCRIPTION / JUSTIFICATION: The U.S. Navy F-5E/F Adversary aircraft inventory, and all applicable funds are for 32 aircraft. U.S. Air Force updated durability, damage, and tolerance analysis, structural inspection, full scale fatique testing and counting accelerometer data has identified structural fatique in wings and fuselage areas. The U.S. Navy plans to utilize these aircraft in the Adversary mission through FY2015, and beyond. However, aircraft will be grounded prior to FY2015, when maximum fatique life is reached on major structural components, unless further analysis and replacements are procured and installed. The U.S. Navy plans to replace the current high time fuselage with low time Swiss F-5E Fuselages. Also, Wings, as well as, Horizontal Stabilizers, Vertical Stabilizers, Upper/Lower Cockpit Longerons, and Dorsal Longerons require replacement as they reach their fatique life limit. Installation of a Structural Data Recorder is planned to ensure accurate recording of flight profile data which can provide up to a 25% increase in usage of these high costs fatique critical components. Also, repair of other critical safety-of-flight systems such as, Flight Controls and Canopy Latching mechanisms will be accomplished under this program.

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

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
CANOPY LATCH MOD/REFURB KITS	36	0.2																				
DORSAL LONGERONS	21	1.6																				
HORIZONTAL STABILIZERS	13	1.5																				
SDR KITS	10	0.9																				
SWISS/US CONVERSION KIT	18	2.1	9	0.4	5	0.2																
UPPER COCKPIT LONGERON	27	1.4	9	0.6	5	0.4																
VARIOUS KITS	291	1.2																				
VERTICAL STABILIZER	21	3.6																				
VERTICAL STABILIZER INSTALL KIT	10	0.2																				
WINGS	4	3.9																				
INSTALLATION KITS N/R		6.2																				
INSTALL EQUIPMENT																						
INSTALL EQUIPMENT N/R																						
ECO																						
DATA		1.2																				
TRAINING EQUIP																						
SUPPORT EQUIP																						
ILS		2.6		0.2		0.1																
OTHER SUPPORT		2.1		0.4		0.1																
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	383	9.3	20	2.8	14	1.9																
TOTAL PROCUREMENT	834	37.9	38	4.4	24	2.6																

Totals may not add due to rounding

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: F-5 ADVERSARY SERIES

MODIFICATION TITLE: SAFETY/RELIABILITY VERTICAL STABILIZER COCKPIT LONGERON SWISS US CONVERSION

INSTALLATION INFORMATION: DEPOT LEVEL

METHOD OF IMPLEMENTATION: CONCURRENT WITH PHASE DEPOT MAINTENANCE

ADMINISTRATIVE LEADTIME: 1 Months

PRODUCTION LEADTIME: 8 Months

CONTRACT DATES: FY 2006 Nov 05 FY 2007 Nov 07 FY 2008 FY 2009

DELIVERY DATE: FY 2006 Jul 07 FY 2007 Jul 07 FY 2008 FY 2009

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (64) kits	58	9.3	5	0.5	1	0.1																
FY 2006 (18) kits			15	2.3	3	0.3																
FY 2007 (10) kits					10	1.5																
FY 2008 () kits																						
FY 2009 () kits																						
Total	58	9.3	20	2.8	14	1.9																

Note: 325 kits from prior year procurement have been installed and are not shown on this schedule.

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	58		8	6	6		3	6	5												
Out	58			5	7	5	3	2	3	5	4										

	FY 2011				FY 2012				FY 2013					
	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Total
In														
Out														

Exhibit P-3a

MODIFICATION TITLE: F-16 SLEP (OSIP 008-08)

MODELS OF SYSTEMS AFFECTED: F-16A AIRCRAFT TYPE MODIFICATION: SAFETY/RELIABILITY

DESCRIPTION / JUSTIFICATION: F-16 Aircraft assigned to Naval Strike and Air Warfare Center (NSAWC), NAS Fallon, Nevada to support the Adversary role of Air Combat Missions training. The F-16 Aircraft, in their Adversary mission, improve the air combat maneuvering training received by the aircrews. The aircraft airframe modifications required Key Performance Parameter of 3,000 flight hours. The U.S. Air Force documented cracking as early as 1,750 flight hours. The program will incorporate previously qualified modification kits at the U.S. Air Force organic depot located at Hill Air Force Base, Utah.

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

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
SLEP KITS							2	0.2	2	0.2												
INSTALLATION KITS N/R																						
INSTALL EQUIPMENT																						
INSTALL EQUIPMENT N/R																						
ECO																						
DATA																						
TRAINING EQUIP																						
SUPPORT EQUIP																						
ILS																						
OTHER SUPPORT								0.3		0.3												
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST							2	3.0	2	3.1												
TOTAL PROCUREMENT							4	3.5	4	3.6												

Totals may not add due to rounding

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: F-16A AIRCRAFT MODIFICATION TITLE: SAFETY/RELIABILITY

INSTALLATION INFORMATION: DEPOT LEVEL

METHOD OF IMPLEMENTATION: U.S. AIR FORCE DEPOT

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2006 N/A FY 2007 N/A FY 2008 Jan-08 FY 2009 Jan-09

DELIVERY DATE: FY 2006 N/A FY 2007 N/A FY 2008 Jul 08 FY 2009 Jul 09

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS () kits																						
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 (2) kits							2	0.2														
FY 2009 (2) kits									2	0.2												
FY 2010 (2) kits																						
FY 2011 (2) kits																						
FY 2012 (2) kits																						
FY 2013 () kits																						
TO COMPLETE																						
Total							2	0.2	2	0.2												

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In											1		1		1		1				
Out													1		1		1				

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Exhibit P-40, BUDGET ITEM JUSTIFICATION | DATE: **February 2007**

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:

Other Related Program Elements

	Prior Years	ID Code	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Complete	Total
QUANTITY												
COST (In Millions)	2,050.3		439.9	424.7	441.9	460.2	480.4	510.6	521.9	529.6	340.0	6,199.5

This line item funds modifications to F/A-18 aircraft. The F/A-18 Naval Strike Fighter is a twin-engine, mid-wing, multi-mission tactical aircraft. The F/A-18 is employed in both Navy and Marine Corps squadrons. Commencing with the FY 1988 procurement, both the single seat and two-seat F/A-18's include a night attack capability. F/A-18 can be missionized through selected use of external equipment to accomplish specific fighter or attack missions. This commonality provides the Operational Commander more flexibility in employing his tactical aircraft in a dynamic scenario. The primary design mission for the F/A-18 is a strike fighter which includes the traditional fighter applications, such as fighter escort and fleet air defense, combined with the attack applications, such as interdiction and close air support. Since the same fighter and self defense capability is retained, the overall goal of the modifications budgeted in FY 2008 is to implement commonality/capability and structural safety and reliability improvements. The specific modifications budgeted and programmed are:

(TOA, $ in Millions)

OSIP No.	Description	Prior Years	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Complete	Total
011-84	Correction of Discrep.	506.4	38.6	43.9	56.8	61.6	59.5	60.8	64.3	64.3	87.3	1,043.5
036-94	GPS	82.1	1.1	0.3							2.9	86.3
012-96	PIDS	57.7	0.5		3.7	3.8						65.7
010-99	DCS	18.7	2.7	2.3	1.8	1.4	1.4	1.4				29.6
011-99	SLMP	222.8	82.7	111.3	112.0	116.0	123.8	123.8	130.8	184.5	145.3	1,353.1
012-99	MIDS[1]	274.7	33.3	40.1	13.4	19.6	21.4	2.9				405.3
021-00	USMC F/A-18 UPGRADE (ECP583)	229.9	32.3	10.3	22.3	22.9	18.1	25.0				360.8
024-00	JHMCS	56.6	37.8	38.7	36.1	39.0	39.7	39.9	59.2	60.1	75.8	483.1
012-01	ATFLIR	344.0	125.6	126.4	81.4	62.9	25.7	21.3				787.4
019-01	E/F 2000 hr Correction of Discrep.	31.8	2.0	1.9	0.6	0.2						36.4
005-02	Digital Wing Tip for AIM 9X	1.9	0.2	0.8	0.2	0.5	0.3	0.5				4.5
006-02	C/D Training System	56.1	11.7	6.7	6.8	6.8	6.9	13.0	13.3			121.4
012-03	E/F 4000 hr Correction of Discrep.	8.7	0.8	1.8	0.5							11.7
013-03	E/F 6000 hr Correction of Discrep.	3.2	0.6	1.2	*	*						5.1
014-03	E/F Correction of Operational Discrep.	75.8	14.7	16.8	25.7	27.8	26.8	25.6	29.2	20.9	26.2	289.6
023-04	Core Avionics Upgrade	26.5	8.8	3.8	2.7	2.8	6.1	6.3	6.4	6.3		69.8
024-04	Litening	45.6	34.7	3.3								83.6
008-05	Reserve Squadron ECP560	7.9	7.9	0.4	0.3	0.3						16.8
009-06	Link 4A Replacement		3.8	4.7	3.7	4.2						16.4
002-07	AESA			6.3	73.8	90.2	118.5	124.1	50.7	50.0	2.5	516.1
002-10	Network Centric Ops						32.0	47.4	139.6	101.0		320.1
006-11	EA-18G IBS Receiver							4.2	4.6	4.7		13.4
003-11	IRST							14.3	23.8	37.7		75.7
*****	Roadmap[3]			2.7								2.7
*****	EW Sensor[3]			1.1								1.1
TOTAL		2,050.3	439.9	424.7	441.9	460.2	480.4	510.6	521.9	529.6	340.0	6,199.5

Note 1: Defense Emergency Response Funding (DERF) added $11.5M to OSIP (12-99)
Note 2: Beginning in FY 2004, OSIP 15-03 has been moved to P-1 Line Item 51 (P-1 Nomenclature: ID Systems)
Note 3: *** Funding for Roadmap and EW Sensor allocated to the incorrect appropriation; funds should be allocated to RDT,E PE 0204136N, PU E1662**

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

DESCRIPTION/JUSTIFICATION:

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

External Stores EMI Protection (ECP 087S1)	Provide for the application of external stores EMI Protection. This ECP includes Installation Costs ONLY
Auto AC Bus Isolation (ECP 121R1)	Modifies the 50A Battery Charging Converter installation to automatically isolate the busses and reset the generators following a dual power outage.
Battery Control Relay Unit (ECP 165R1)	Safety modification to the utility/emergency battery control circuits and adds a battery relay control unit. Prevents inadvertent battery discharge
FY86 Block Upgrade (ECP 178R1C1)	Increases the power handling capabilities of the four port antenna and the RF switch able filter in order to accommodate the RF power output requirements of the ASPJ System.
Center Fuselage Structural Mods (ECP 241R1)	Improves fatigue for the Dorsal Deck, Duct Skin rivets at Y442, ECS Inlet Casting, and Y419 Nacelle Former at Ramp Truss Attachment.
Dorsal Longeron (ECP 251)	Life extension modification to the Dorsal Longeron.
Dorsal Longeron (ECP 251R1)	Life extension modification to the Dorsal Longeron.
470.5 Bulkhead (ECP 262)*	Improves the fatigue life of the Y470.5 Bulkhead Outer Cap.
Righthand AMAD Bay (ECP 267R1)*	Reliability and maintainability improvement to the interference between the motive flow tube and the hot fuel recirculation tube.
Y508 Former (ECP 276)	Structural improvement of the Y508 Former by increasing the flange thickness and reinforcing the former with integral ribs.
AFT Engine Mount (ECP 305R1)*	Safety modification improves the aft engine mount support to prevent cracking in the aft engine mount support fitting.
Y657.35 Engine Bay Door Former (ECP 306)	Modifies the existing door former to prevent cracking.
Main Landing Gear (MLG) Planning Link (ECP 311)*	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
MLG Trunnion Upgrade (ECP 319)*	Safety modification reconfigures and strengthens the MLG trunnion assembly to prevent catastrophic failure upon landing or takeoff.
Y488 Bulkhead (ECP 320)	Modifies the Y488 bulkhead to reduce structural stress and improve fatigue life.
Wing Fatigue Repair (ECP 353)	Modifies the fastener holes in the Wing Panel Forward Spar and the #4 Intermediate Wing Spar to increase fatigue life.
MLG Shoulder Belt (ECP 355)	Safety modification provides new shoulder bolts to correct a deficiency concerning elongation of the AFT bolt hole in the MLG Door Actuator Support Fitting.
ASPJ System Improvement (ECP 364)	Improves reliability and maintainability by improving the cooling system and correcting transmit switchable filter qual test problems
Y470 Bulkhead Improvement (ECP 365)	Modifies the Y470 bulkhead to reduce structural stress and improve fatigue life.
#1 Fuel Cell Floor (ECP 367)	Safety modification to improve the fuel cell floor strength to prevent cracking during catapult.
MLG Retract Actuator (ECP 375)	Redesigns the MLG Retract Actuator Support Fitting and the Flange of Y470.5 Bulkhead where the fitting attaches and revises hydraulic timing to lengthen the Fatigue Life of the structures
Fretting on Formers & Spindles (ECP 391)	Safety modification to correct fretting observed on outboard formers of horizontal stabilizer.
Fuselage Skin, Y518 to Y534 (ECP 402)*	Modifies exterior fittings and adds and internal bathtub to strengthen the area, reduce structural stress, and improve fatigue life.
Fuselage Skin, Y518 to Y534 (ECP 402R1)*	Modifies exterior fittings and adds and internal bathtub to strengthen the area, reduce structural stress, and improve fatigue life.
Inlet Duct Skin at Y453 (ECP 417)	Addresses the retrofit design which will provide 12,000 SFH of life without cracks for the Inlet Duct Skin
Y470.5 Bulkhead MLG Trunnion (ECP 428)	Corrects the deficiency in the MLG Trunnion support at Y470.5 bulkhead.
Speed Brake Trough (ECP 440)	Modifies the existing speed brake trough area to strengthen it and improve fatigue life
SUU-63 Wing Pylon Door Panel (ECP 488)	Safety modification to the existing door panel to preclude loss of the door during flight
Y470.5 Bulkhead Fatigue Change (ECP 492)	Modifies the thickness of the existing bulkhead web to increase strength and improve fatigue life
Fuselage Skin at Y453 (ECP 498)	Safety modification to strengthen existing fasteners attaching the P/N 74A324350 former to Y453 bulkhead.
Nacelle Skin Fatigue Improvements (ECP 501)	Retrofits the Inlet Nacelle Skin to correct acoustic vibration related fatigue failures.
LAU-115 Sparrow Mod (ECP 506)*	Modifies the lower rail of the LAU-115 to strengthen the area of the AIM-7 Sparrow missile forward hanger interface and improve fatigue life.
ST-16 Failures (ECP 536)*	Modifies aircraft between Lot VI and Lot XVI or realize Full Life Airframe (6000 Fatigue Hours)
Improvement of Inner Wing SPAR (ECP 544)	Strengthens the existing inner wing spar to improve fatigue life
Fuel Barrier Web (ECP 548)	Safety improvement to the existing fuel barrier web to prevent fuel leaks.
Wing Drag Longeron (ECP 550)*	Structural improvement to the Wing Drag Longeron due to tabs attached to the closeout webs were cracking during installation.
Y326.5 Plate Nut (ECP 561)	Modifies the existing fasteners at the Y326.5 Bulkhead to improve fatigue life
Lower Center Keel Fire Hazard (ECP 562)	Safety improvement to the secondary pressure regulator bay to eliminate fire hazards.
Aileron/Trailing Edge Flap (ECP 574)	Provides a full-life improvement for aircraft degradation caused by cracked trailing edge flap and aileron hinges.
Serocylinder Test Station (ECP-598)	Provides for the upgrade of aging Peculiar Support Equipment. Improvements in reliability and maintainability of Peculiar Support Equipment and modification to existing Support Equipment
Flight Control Computer (ECP 595)	Improves safety-of-flight for the recovery from, and resistance to, out-of-control flight (OOCF) while also eliminating anomalies cited in FCC OFP 91C*004. **(NON-RECURRING COSTS ONLY)**
Hydraulic Temp Gauges (ECP NI 879)	Improves the reliability of the hydraulic temperature gauges.
Environment Control System Wiring (NI 742)	Modifies wiring to the number 3 Relay Panel Assembly to connect the Left MainGear (LMG) Weight on Wheels (WOW) Relay ABD the Dump/RAM Dump Relay.
Wing Fuel Dams (NI 796)	Safety improvement modifies the inner wing inboard closure rib to prevent fuel leaks.
MLG Trunnion Assembly (NI 824)	Safety improvement to the MLG trunnion assembly to improve fatigue life and prevent failed landing gear mishaps.
Heat Exchanger (NI 827)	Provides for the removal of the nickel core and replaces with a more reliable stainless steel and nickel core.
Night Vision Display System (NVDS) (NI 830)	Adds capability to the lighting system to make the NVDS compatible.
Trailing Edge Flap (NI 839)	Safety modification to the trailing edge flap to correct flap departures while in flight.
Birdstrike Res Windshield (NI 843)	Safety modification to the windshield to protect against birdstrikes during flight
Aileron Hinge Mod (NI 844)	Provide a full-life improvement for aircraft degradation caused by cracked trailing edge flap and aileron hinges.
ANTI G VALVE (ECP XXX)	Improves pilot G-Load tolerance as part of the Navy Combat Edge (NCE) Anti-G Protection System.
Fuel Cell Floor Crack (ECP 973)	Safety modification to correct cracks at Y431, Y442, and Y453 in the fuel cavity floor deck centerline under tank two and three.
AFT Fuselage Skin Crack (ECP592)	Safety improvement to the fatigue life of the forward skin section of the chem.-milled panels.
Wing SPAR Crack (ECP XXX5)	Strengthens the existing front inner wing SPAR to improve fatigue life
Forward Lower Keel Modification (ECP NI 931)	Improves fatigue life of the Nose Landing Gear (NLG) Drag Brace.
Main Landing Gear (MLG) Axle (ECP 952)	Incorporation of Full Life redesigned Main Landing Gear Axle Polygon, extending Axle's service life from current 8300 total landings to 13000
MLG Y488 Bulkhead (ECP XXX8)	Restores Full Life to Y488 Bulkhead due to cracks around MLG Uplock hardware holes
OBOGS (ECP XXX9)	Retrofit LOX-equipped aircraft with Onboard Oxygen Generating System (OBOGs) solutions that are integrated with supplemental oxygen systems
Crease Longeron (ECP 608)	Restores the load path lost when the Crease Longeron cracks at FS 453.
Heat Deterrent (ECP NI-1013-05)	Modifies the aircraft to correct structural fatigue problems caused by degraded ECS Peri-Seals.
Nose Landing Gear/MLG/Control Value Restriction (ECP XX12)	Improve hydraulic fluid rate and reduce hydraulic line failures.
Bay 3 Shelf Redesign (ECP XXX13)	Modify avionic shelves to withstand catapult fatigue loads
Bay 4 Shelf Redesign (ECP XXX14)	Modify avionic shelves to withstand catapult fatigue loads
Cockpit Pressurization Warning System (ECP 6217)	Notify pilot when pressurization is lost in cockpit
Vertical Tail (ECP XXX-16)	Modify vertical tail former and spars to prevent fatigue cracking.
Canopy/Windscreen (ECP XXX-17)	Modify canopy/windscreen frames and address delamination.
NLG/MLG Fatigue Improvements (ECP-XXX18)	Fatigue Improvements to include arresting gear planning link redesign
Inner Wing Conversions (ECP XXX19)	Converting Lot 5-9 Wings to Lot 12 and above configuration.
NFDS Mods, C&D Conversion (ECP-JAX-F18-001)	Removing the weapon systems from the aircraft, install Smoke Generation System and install Auxiliary Fuel Pumps for extended inverted flight.
Interwing Conversion ECP XXX-21	Converting Lot 10/11 Wings to Lot 12 and above configuration
Repeatable Release Holdback Bar (ECP 0147)	Modifies the RRHB to correct problems caused by degraded primary locking segments.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Each change has been or will be tested prior to installation in the F/A-18.
ECP 536 moved from OSIP 11-99 to OSIP 11-84 in FY02. No installs currently planned; possible in future.
Unit cost variances due to: - Many ECP Kits were/are provided to the Navy at no additional costs (warranty kits).*
- Some ECPs have numerous Technical Directives with different unit costs

Exhibit P-3a **INDIVIDUAL MODIFICATION**

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

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

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
ECP 087S1/External Stores EMI Protection																						
ECP 121R1/Auto AC Bus Isolation	356	0.7																				
ECP 165R1/Battery Control Relay Unit	251	0.5																				
ECP 178/FY86 Block Upgrade	82	4.7																				
ECP 241R1/Center Fuselage Structural Mods	1,719	0.6																				
ECP 251/Dorsal Longeron	1,926	0.8																				
ECP 251R1/Dorsal Longeron	443	8.6																				
ECP 262/470.5 Bulkhead	494	*																				
ECP 267R1/Righthand AMAD Bay	287	*																				
ECP 276/Y508 Former	836	1.0																				
ECP 305/AFT Engine Mount	619	*																				
ECP 306/Y657.35 Engine Bay Door Former	688	0.9																				
ECP 311/Main Landing Gear (MLG) Planing Link	10	*																				
ECP 319/MLG Trunnion Upgrade	1,405	*																				
ECP 320/Y488 Bulkhead	473	1.2																				
ECP 353/Wing Fatigue Repair	98	0.7																				
ECP 355/MLG Shoulder Belt	350	0.2																				
ECP 364/ASPJ System Improvement	225	*																				
ECP 365/Y470 Bulkhead Improvement	982	1.0																				
ECP 367/#1 Fuel Cell Floor	557	0.3																				
ECP 375/MLG Retract Actuator	1,323	5.7																				
ECP 391/Fretting on Former's & Spindles	582	0.3																				
ECP 402/Fuselage Skin, Y518 to Y533	638	*																				
ECP 402R1/Fuselage Skin, Y518 to Y534	720	2.1																				
ECP 417/Inlet Duct Skin at Y453	575	2.0																				
ECP 428/Y470.5 Bulkhead MLG Trunnion	2	0.1																				
ECP 440/Speed Brake Trough	591	1.0																				
ECP 488/SUU-63 Wing Pylon Door Panel	1,351	0.8																				
ECP 492/Y470.5 Bulkhead Fatigue Change	688	1.4																				
ECP 498/Fuselage Skin at Y453	696	0.7																				
ECP 501/Nacelle Skin Fatigue Improvements	663	3.7																				
ECP 506/LAU-115 Sparrow Mod	935	*																				
ECP 536/ST-16 Failures	28	4.6	20	2.2	4	0.6	25	2.7	7	0.8												
ECP 544/Improvement of Inner Wing SPAR	29	0.3																				
ECP 548/Fuel Barrier Web	750	1.4																				
ECP 550/Wing Drag Longeron	119	0.2																				
ECP 561/Y326.5 Plate Nut	532	0.2																				
ECP 562/Lower Center Keel Fire Hazard	798	0.4																				
ECP 574/Trailing Edge Flaps	1,026	26.8																				
ECP 574/Aileron	707	18.2																				
ECP 598 Servocylinder Test Station					9	1.2	9	1.3	8	1.2												
NI879/Hydraulic Temp Guages	150	0.2			100	0.3	100	0.4	100	0.4												
NI 742/Environment Control System Wiring	150	0.2																				
NI 796/Wing Fuel Dams	515	0.8																				
NI 824/MLG Trunnion Assembly	425	13.4																				
NI 827/Heat Exchanger	37	0.4																				
NI 830/Night Vision Display System (NVDS)	14	0.3																				
NI 839/Trailing Edge Flap	1,150	9.4																				
ECP XXX - ANTI G VALVE	800	1.0																				
ECP 973 Fuel Cell Floor Crack			40	0.1	40	0.9	100	2.2	100	2.3												
ECP 592 - Side Fuselage Crack									25	0.7												
ECP XXX5 - Wing SPAR Crack					40	0.9	35	1.7	35	1.7												
ECP NI 931 - Forward Lower Keel Modification					40	0.6	80	1.3	80	1.4												
ECP 952 - MLG Axle	688	17.1																				
ECP XXX8 - MLG Y488 Bulkhead					80	0.3	80	0.3	80	0.3												
ECP XXX9 - OBOGS					20	0.5	80	2.0	80	2.1												
ECP 608 - Crease Longeron																						
ECP NI-1013-05 Heat Derrent			315	4.4	315	6.6																
ECP XXX12 Nose Landing Gear/MLG/Control Value Restriction																						
ECP XXX13 Bay 3 Shelf Modification					80	0.4	80	0.4	80	0.4												
ECP XXX14 Bay 4 Shelf Modification					80	0.4	80	0.4	80	0.4												
ECP 6217 Cockpit Pressurization Warning System (CPWS)	10	0.1	300	1.3	150	0.6	63	0.3														
ECP XXX16 Vertical Tail					10	0.3	100	2.6	100	2.7												
ECP XXX17 Canopy/Windscreen					150	0.4	150	0.4	150	0.4												
ECP XXX18 NLG/MLG Fatigue Improvement					80	0.1	80	0.1	80	0.1												
ECP XXX19 Inner Wing Conversions/Modification					40	0.2	40	0.2	40	0.3												
ECP JAX F-18-001 NFDS MODS, C&D Conversion			2	1.6	10	6.0																
ECP XXX20 Repeatable Release Holdback Bar	285	1.5			80	0.1																
ECP XXX21 Interwing Conversion Lot 10/11 to Lot 12 & Up							40	0.2	40	0.3												
Installation Kits N/R		19.6		1.8		1.2		5.4														
Installation Equipment		2.3				0.6		0.6		0.6												
Installation Equipment N/R		0.1																				
Engineering Change Orders																						
Data		3.6		0.2		*		*														
Training Equipment																						
Support Equipment		1.5																				
ILS		125.7		24.3		15.5		17.3		18.7												
Other Support																						
Interim Contractor Support																						
Installation Cost	18,301	218.5	464	2.6	912	6.2	744	17.0	893	27.1												
TOTAL PROCUREMENT		506.4		38.6		43.9		56.8		61.6												

Notes:

1. Totals may not add due to rounding.
2. Asterisk indicates amount less than $50K.
3. ECP 087S1 (External Stores EMI Protection) and ECP 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 GLOBAL POSITIONING SYSTEM (GPS) (OSIP 36-94)**

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

DESCRIPTION/JUSTIFICATION:

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

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

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

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

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

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
Lot VI through IX Kit (Note 3)	67	5.1																				
Lot X through XVI Kit	444	7.8																				
Installation Kits N/R		34.6																				
Installation Equipment																						
Lot VI through IX Kit																						
Lot X through XVI Kit	390	13.1																				
Installation Equipment N/R		0.5																				
Engineering Change Orders		4.1																				
Data																						
Training Equipment		2.0																				
Support Equipment		1.8																				
ILS		1.6																				
Other Support		0.1																				
Interim Contractor Support																						
Installation Cost	391	11.4	49	1.1	17	0.3																
TOTAL PROCUREMENT		82.1		1.1		0.3																

Notes:

1. Update required based on FY02 magr procurement $2,548K from OSIP 19-01.
2. Funds in house will be realign in FY06 to support installation of equipment.
3. 15 "A" kits procured in FY91 to 98 were not installed due to technical issue addressed above.
4. Included in Prior Year procurement was 28 MAGR 2K's which are a Form, Fit, Function replacement for the original MAGR Kit. The MAGR 2K included updates to internal components to address parts obsolescence issues.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **F/A-18A/B/C/D** MODIFICATION TITLE: **F/A-18 GLOBAL POSITIONING SYSTEM (GPS) (OSIP 36-94)**

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Navy Depot Field Mod Team at Five (5) Locations**

ADMINISTRATIVE LEADTIME: **5 Months** PRODUCTION LEADTIME: **18 Months**

CONTRACT DATES: FY 2006: Mar-04 FY 2007: FY 2008: FY 2009:

DELIVERY DATE: FY 2006: Sep-05 FY 2007: FY 2008: FY 2009:

($ in Millions)

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY (457) kits	391	11.4	49	1.1	17	0.3																
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
TOTAL	391	11.4	49	1.1	17	0.3																

15 "A" kits procured in FY91 to 98 were installed due to technical issue addressed above.

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	391	13	12	12	12	12	5	0	0	0	0	0	0	0	0	0	0
Out	391	13	12	12	12	12	5	0	0	0	0	0	0	0	0	0	0

	FY 2010				FY 2011				FY 2012				FY 2013				To Complete	TOTAL
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In																		
Out																		

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **POSITIVE IDENTIFICATION SYSTEM (OSIP 12-96)**

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

DESCRIPTION/JUSTIFICATION:

The Positive Identification System (PIDS) allows the F/A-18 to positively identify another aircraft. The requirement for positive identification of enemy and friendly aircraft arose from Desert Storm lessons learned and is a CNO high priority issue. Although Lot applicability is back to Lot X, FYDP funding represents an affordable plan. ORD # 446-88-96. The Communication, Navigation and Surveillance/Air Traffic Management (CNS/ATM) is a satellite-based technology designed to effectively and efficiently control and manage air traffic. CNS/ATM requires the PIDS AN/APX-111 to be upgraded to the -20 Configuration. Military aircraft must conform with CNS/ATM to prevent violation of civil air traffic clearances and ensure safe separation of military and civil air traffic. One kit is required per aircraft / AN/APX-111.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Forward fit of the PIDS (CIT) for the F/A-18 began in FY 1995 with the last block of Lot 19 aircraft. Retrofit kit procurement started in FY1996. Val/Ver kits were installed in FY98. Kit installation began in FY99. PIDS (CIT) had a successful OPEVAL with Software Configuration Set (SCS) 13C.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E		89.7																				89.7
PROCUREMENT																						
Installation Kits																						
Lot X through XIX Kit	90	27.9																				
Lot XX through XXI Kit																						
Installation Kits N/R		7.0																				
Installation Equipment (Note 1)																						
Lot X through XIX Kit																						
Lot XX through XXI Kit																						
Lot XXV through XXVI Kit	12	1.9	7	0.5			21	3.7	22	3.8												
Installation Equipment N/R																						
Engineering Change Orders		0.4																				
Data		1.2																				
Training Equipment		2.7																				
Support Equipment		5.8																				
ILS		2.4																				
Other Support																						
Interim Contractor Support																						
Installation Cost	90	8.4																				
TOTAL PROCUREMENT		57.7		0.5				3.7		3.8												

Notes:
1. Totals may not add due to rounding

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **F/A-18C/D** MODIFICATION TITLE: **POSITIVE IDENTIFICATION SYSTEM (OSIP 12-96)**

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **DEPOT LEVEL**

ADMINISTRATIVE LEADTIME: **6 Months** PRODUCTION LEADTIME: **18 Months**

CONTRACT DATES: FY 2006: FY 2007: FY 2008: FY 2009:

DELIVERY DATE: FY 2006: FY 2007: FY 2008: FY 2009:

($ in Millions)

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY (90) kits	90	8.4																				
FY 2006 (0) kits																						
FY 2007 (0) kits																						
FY 2008 (0) kits																						
FY 2009 (0) kits																						
TOTAL	90	8.4																				

Installation Schedule

	FY 2005	FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Out	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	FY 2010				FY 2011				FY 2012				FY 2013				To	
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	TOTAL
In																		
Out																		

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **DIGITAL COMMUNICATIONS SYSTEM (DCS) (OSIP 10-99)**

MODELS OF SYSTEM AFFECTED: **F/A-18 C/D (Lots 10-21)** TYPE MODIFICATION: **CAPABILITY IMPROVEMENT**

DESCRIPTION/JUSTIFICATION:

The Digital Communications System (DCS) consists of an upgraded AN/ARC-210 Receiver Transmitter (RT) [with embedded digital message transfer capability and embedded Communications Security (COMSEC)] installed in the F/A-18 and integrated with the F/A-18 weapons system [mission computer, controls & displays, and communication subsystem]. The DCS utilizes preformatted messages to communicate with standard USMC, USA, and USAF digital communications devices to facilitate Close Air Support (CAS), Deep Air Strike (DAS), and Tactical Air Control (TAC) missions. DCS reduces voice communications requirements which tend to be slow, inaccurate, and susceptible to Meaconing, Interference, Jamming, and Intrusion (MIJI). DCS will enhance mission effectiveness by decreasing pilot workload which allows the pilot more time to counter increased threat capabilities. ORD# 486-88-98. This OSIP will also be used to address parts obsolescence issues and to perform non-recurring work associated with Network Centric operations and Interoperability requirements.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

The AN/ARC-210 RT is being upgraded to a DCS RT. The Initial Engineering Developmental Model (EDM) was delivered (using RDT&E,N resources) in FY1998 as scheduled. The F/A-18C/D requirements will be satisfied by retrofitting DCS into Lot X through Lot XXI. Functionality was provided in the Operational Flight Program (OFP) 15C fleet release in FY2000. Initial procurement of installation kits was awarded May 1999. F/A-18C/D Lots X and XI require an ACI and DCS radio. DCS radios are purchased through OSIP 04-94 (PMA-209). "B" Kits (Radios) purchased in FY02 and FY03 through this OSIP are to balance total inventory of radios to installation kits. OSIP 04-94 is purchasing 20 Install A kits in FY05 and 40 Install A kits in FY06. Additional ACI requirements for increased install provisions are currently funded under OSIP 12-99.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E		35.3																				
PROCUREMENT																						
Installation Kits																						
Lot XII through XXI Kit	336	1.0	24	0.1																		
Lot X through XI Kit	103	0.6	20	0.1																		
Installation Kits N/R		0.6																				
Installation Equipment																						
Lot XII through XXI Kit ("B" Kit)	40	1.9																				
Lot X through XI Kit (ACI)	108	7.5	20	1.2																		
Installation Equipment N/R																						
Engineering Change Orders		0.5								0.2												
Data		*																				
Training Equipment		0.6																				
Support Equipment		1.2																				
ILS		1.7				0.8		*		0.2												
Other Support		0.1																				
Interim Contractor Support																						
Installation Cost	249	2.9	81	1.4	84	1.5	80	1.7	34	0.9												
TOTAL PROCUREMENT		18.7		2.7		2.3		1.8		1.4												

Notes:
1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. "Installations" are 60 greater than "Installation Kit Procurement" due to 60 kits being procured on OSIP 04-94.
4. Installation cost varies depending on aircraft configuration and Lot being retrofit.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **F/A-18 C/D (Lots 10-21)** MODIFICATION TITLE: **DIGITAL COMMUNICATIONS SYSTEM (DCS) (OSIP 10-99)**

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Navy Depot Field Mod Team**

ADMINISTRATIVE LEADTIME: **3 Months** PRODUCTION LEADTIME: **24 Months**

CONTRACT DATES: FY 2006: Jan-06 FY 2007: Jan-07 FY 2008: Jan-08 FY 2009:

DELIVERY DATE: FY 2006: Jan-08 FY 2007: Jan-09 FY 2008: Jan-10 FY 2009:

($ in Millions)

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY (439) kits	249	2.9	81	1.4	84	1.5	80	1.7	5	0												
FY 2006 (44) kits									29	0.9												
FY 2007 () kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
TOTAL	249	2.9	81	1.4	84	1.5	80	1.7	34	0.9												

NOTE: "Installations" are 60 greater than "Installation Kit Procurement" due to 20 kits in FY05 and 40 kits in FY06 being procured on OSIP 04-94.

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	249	0	27	27	27	27	19	19	19	30	15	15	20	34	0	0	0
Out	249	0	27	27	27	27	19	19	19	30	15	15	20	34	0	0	0

	FY 2010				FY 2011				FY 2012				FY 2013				To Complete	TOTAL
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In																		
Out																		

Exhibit P-3a **INDIVIDUAL MODIFICATION**

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

MODELS OF SYSTEM AFFECTED: **F/A-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/Bs as well as to F/A-18C/Ds. ECP 904 Part 1 is the basic center barrel kit. Part 2 is required to extend Wing Root 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 I and II. Part 4 is to extend flight hours associated with flight control surfaces, wings, vertical tails and the forward/aft fuselage.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Currently all Lot VI through XVII aircraft have 78% life limits without the SLMP modifications to bring them to 100% airframe life. MDA and NGC developed ECP536 retrofit repair to modify these aircraft so they could restore the airframe to full life. ECP 536 was approved and Validation was completed May 2001. NADEP North Island developed ECP904NI (CBR+) which was approved on 27 April 2000, ECP 904NI 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 this OSIP to OSIP 11-84 in FY02.

FINANCIAL PLAN (TOA, $ in Millions)

	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E		19.5																				
PROCUREMENT																						
Installation Kits																						
ECP 904 Part 1	140	107.1	37	29.0	28	24.8	40	36.2	40	36.9												
ECP 904 Part 2	36	14.2	32	0.5	32	0.5	32	0.5	32	0.6												
ECP 904 Part 3	14	1.4	2	0.3	76	12.3	10	1.7	32	5.4												
ECP 904 Part 4							40	6.6	30	5.1												
Installation Kits N/R	7	22.5																				
Installation Equipment	37	2.6	36	1.6	40	2.3	40	1.8	40	1.8												
Installation Equipment N/R		0.8				0.7																
Engineering Change Orders																						
Data		4.9				0.1																
Training Equipment																						
Support Equipment																						
ILS		21.1		6.2		12.2		9.5		8.5												
Other Support		0.8																				
Interim Contractor Suppor																						
Installation Cos	39	47.4	36	45.1	40	58.4	40	55.8	40	57.7												
TOTAL PROCUREMENT		222.8		82.7		111.3		112.0		116.0												

Notes:

1. Totals may not add due to rounding
   - *** ECP536 VAL/VER Kit provided under warranty.**
   - **** Prior Year VAL/VER Kits: (1) provided under warranty by Boeing and (1) provided by NAVICP on hand assets.**
   - ***** Installations slipped one year due to FY01 funding reductions.**
2. "Installation Kit" Pricing is Quantity Sensitive. FMS procurements in some years affects unit price.
3. The reduced cost for ECP 904 PT2 beginning in FY-06 is due to a change from procuring new nacelle ramps to installing AFC-271 nacelle mods on WRFL
4. FY06 ECP 904 Part 2 unit cost reflects remanufactured kits vice procuring new.
5. FY06 ECP 904 Part 3 is an "O"' Level Install, does not have to be installed concurrently with Part I and II.

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+**

INSTALLATION INFORMATION: **CONTRACTOR PROVIDING 1 WARRANTY KIT**

METHOD OF IMPLEMENTATION: **ONE KIT INSTALLED BY CONTRACTOR FOR VAL/VER, OTHER INSTALLS BY DEPOT**

ADMINISTRATIVE LEADTIME: **3 Months** PRODUCTION LEADTIME: **24 Months**

CONTRACT DATES: FY 2006: Jan-06 FY 2007: Jan-07 FY 2008: Jan-08 FY 2009: Jan-09

DELIVERY DATE: FY 2006: Jan-08 FY 2007: Jan-09 FY 2008: Jan-10 FY 2009: Jan-11

($ in Millions)

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty		Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY (140) kits	39	47.4	36	45.1	40	58.4	25	4.2														
FY 2006 (37) kits							15	51.6	22	17.3												
FY 2007 (28) kits									18	40.4												
FY 2008 (40) kits																						
FY 2009 (40) kits																						
TOTAL	39	47.4	36	45.1	40	58.4	40	55.8	40	57.7												

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	39	9	9	9	9	10	10	10	10	10	10	10	10	10	10	10	10
Out	39	9	9	9	9	10	10	10	10	10	10	10	10	10	10	10	10

	FY 2010				FY 2011				FY 2012				FY 2013				To Complete	TOTAL
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In																		
Out																		

Exhibit P-3a **INDIVIDUAL MODIFICATION**

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

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

DESCRIPTION/JUSTIFICATION:

The system is Tactical Data Link Communications to provide a secure communications and 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 will be installed in USN/USMC F/A-18 aircraft as the primary U.S. platform, 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 will be interoperable with JTIDS Class 2 Terminals utilized by NATO allies as well as the other Services. F/A-18 will be interoperable with all Link 16 equipped platforms in U.S. and Allied Nations. This OSIP will also be used to perform efforts to address parts obsolescence and to examine potential MIDS-related capability upgrades associated with Network Centric Operations and interoperability requirements. ORD # 337-06-93. The MIDS Joint Tactical Radio System (MIDS JTRS) is ar ECP upgrade to the MIDS-LVT developed under ORD#642-61-04. MIDS JTRS offers the functionality of Link 16, TACAN, and digital voice in a software-controlled architecture (SCA) JTRS-compliant format, and provides the option of future expandability to host the Airborne Networking Waveform (ANW). MIDS JTRS will be retrofit in Lots 26-31 F/A-18E/F and EA-18G aircraft.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

This OSIP was originally planned for incorporation of MIDS into F/A-18C/D (Lots 12-21) and F/A-18E/F (Lots 22-31). A MIDS installation kit Critical Design Review (CDR) was held at Boeing in September 1996. MIDS Terminal initial Engineering and Manufacturing Development (E&MD) delivery for F/A-18 occurred in February 1998. Installation into the first three (3) EMD aircraft began in March 1998 and ended in September 1998. In May 1999, Boeing was awarded the ECP contracts required to provision the F/A-18E/F for the MIDS LVT while still in production. These provisions include: an Interference Blanking Unit (IBU); an Amplifier Control Intercommunication Unit (ACI); a MIDS Compatible CIT upgrade; and a MIDS Compatible Transponder upgrade. This list of equipment was also required to be retrofit into F/A-18C/D and is included as the "Avionics Upgrade" in the table below. These provisions are required by other F/A-18 programs and can be installed independently of MIDS LVT. OPEVAL was completed in June 2003, with a recommendation of operationally effective and operationally not suitable. A Verification Correction of Deficiencies (VCD) was completed on 15 August 2003. The VCD report delivered on 4 September 2003 recommended full fleet release. Full Rate Production approval was granted on 25 September 2003. Integration testing of MIDS JTRS capabilities will begin in FY07. FY07 is a LRIP buy per the approved acquisition strategy and will enable Initial Operational Capability in FY09.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E		29.9		1.5		1.7																
PROCUREMENT																						
Installation Kits																						
Lot 12 through 21 Kits	280	45.6	48	7.4	69	4.5																
Lot 26 through 31 Kits (MIDS-JTRS)					12	0.1	12	0.1	24	0.2												
Installation Kits N/R																						
Installation Equipment																						
Avionics Upgrade	280	49.3	48	7.3	69	2.7																
MIDS LVT	309	94.4	54	12.1	52	11.0																
MIDS JTRS					12	7.2	12	5.9	24	10.6												
Installation Equipment N/R		37.2																				
Engineering Change Orders		0.5				0.5		0.3		0.8												
Data		1.4		0.6																		
Training Equipment																						
Support Equipment		4.5		0.3		2.4																
ILS		6.4		0.1		3.3		1.1		1.7												
Other Support		15.9		0.7		3.5		1.1		2.3												
Interim Contractor Support																						
Installation Cost	184	19.5	48	4.8	48	4.8	48	4.8	40	4.0												
TOTAL PROCUREMENT		274.7		33.3		40.1		13.4		19.6												

Notes:

1. Totals may not add due to rounding
2. "A" Kits and Avionics Upgrade continue to be procured and MIDS installations continue on the C/D's to maintain schedule.
3. 12 Installations kits and Avionics Upgrades, plus 23 MIDs LVT procured through DERF($11.5M), in FY02. Installation were accomplished through budgeted FY04 installation c
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 2006: Mar-06 FY 2007: Mar-07 FY 2008: FY 2009:

DELIVERY DATE: FY 2006: Sep-07 FY 2007: Sep-08 FY 2008: FY 2009:

($ in Millions)

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY (280) kits	184	19.5	48	4.8	48	4.8																
FY 2006 (48) kits							48	4.8														
FY 2007 (69) kits									40	4.0												
FY 2008 ( ) kits																						
FY 2009 (0) kits																						
TOTAL	184	19.5	48	4.8	48	4.8	48	4.8	40	4.0												

*Note: DERF funded "A" kit procurement.

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	184	12	12	12	12	12	12	12	12	12	12	12	12	10	10	10	10
Out	184	12	12	12	12	12	12	12	12	12	12	12	12	10	10	10	10

	FY 2010				FY 2011				FY 2012				FY 2013				To	
	1	2	3	4	0	2	3	4	1	2	3	4	1	2	3	4	Complete	TOTAL
In																		
Out																		

Exhibit P-3a **INDIVIDUAL MODIFICATION**

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

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

DESCRIPTION/JUSTIFICATION:

This 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 TACAIR Integration Plan. The Avionics Upgrade includes avionics subsystems already incorporated or being incorporated into USMC and/or FMS F/A-18 aircraft. The Basic ECP 583 incorporates the following subsystems: AN/ARC-210(V) with HAVEQUICK II and SINCGARS; Digital Communication Systems (DCS) Receiver/Transmitter (RT-1824(C)); Combined Interrogator/Transponder AN/APX-111 (V); Night Vision Display System (NVDS); Mission Computer CP-2360 (XN-8); Radar (AN/APG-73); Stores Management Set (SMS, AN/AYQ-9); AMRAAM Capability (radar mod, launchers, weapons pylons and control stick); Digital Display Indicator (DDI) Upgrade; Mission Data Loader (AN/ASQ-215); Targeting FLIR provisions (AAS-38B). ECP583R1 adds a digital wingtip modification, allowing use of the AIM-9X air-to-air missile. ECP 583R2 adds the following capabilities: MIDS(LVT); Color Displays; JHMCS; ALE-47; TAMMAC; and AMU. ECP 583R3 was cancelled. ECP583R4 will incorporate the NACES seat for utilization with the JHMCS system.
This OSIP also provided limited integration of the LITENING Enhanced Range FLIR on 24 USMC F/A-18Ds. This allowed the Marine Corps to utilize existing LITENING pods, currently in the AV-8B inventory, on USMC F/A-18Ds to provide the Air Ground Task Force capability and flexibility in the execution of operations in the combat spectrum.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

While the number of aircraft to be retrofit in the program of record has not changed, the Marine Corps will now retrofit some early lot F/A-18C/Ds vice only F/A-18ABs due to greater remaining life on those aircraft. ECP 583 was approved 25 March 1999. ECP 583R1 was approved in August 2001. All the equipment being incorporated in this ECP has completed development.
A New Start notification was sent to the Congress in FY 2003 to initiate the Litening integration and procurement of the FY 2004 Installation Kits. Due to lower than expected pricing, 24 aircraft are able to be modified with the originally identified funding.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
ECP 583	27	7.5																				
ECP 583R1	82	0.3																				
ECP 583R2	1	0.6	12	10.6			19	12.5	19	13.5												
Litening	24	0.9																				
Installation Kits N/R		8.4		12.6		0.3																
Installation Equipment	1057	167.1	12	2.7																		
Installation Equipment N/R																						
Engineering Change Orders																						
Data		0.5																				
Training		0.7		*				0.2		0.3												
Other Support (Testing)		3.5		1.1		2.0		2.3		3.2												
Support Equipment		1.5				0.7				0.4												
ILS		18.6		2.7		2.1		2.7		4.0												
Interim Contractor Support																						
Installation Cost	55	20.2	6	2.6	18	5.3	12	4.7	5	1.5												
TOTAL PROCUREMENT		229.9		32.3		10.3		22.3		22.9												

Notes:
1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. 34 "Installation Kits" were purchased with NGRE Funds to include: 4 Val/Vers - FY98; 20 "A" Kits - FY99; and 10 "A" Kits - FY00. The cost of these kits are not displayed in this OSIP.
4. The "Installation" unit costs for FY 2002 through FY 2005 are skewed by Congressional adds. The 6 installs in FY2004 are funded with FY 2002 Congressional add funding and the 3 installs in FY 2005 are funded with FY 2003 Congressional add funding.
5. The Installation Kit procurement of ECP583R2 is for Validation/Verification.
6. The additional ECP583R1 kits are being procured to retrofit Navy Reserve aircraft already modified to an ECP 583 configuration under an OSIP that is no longer active.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **F/A-18A/B/C/D** MODIFICATION TITLE: **USMC F/A-18 UPGRADE ECP-583 (OSIP 21-00) (ECP583 and ECP 583R2)**

INSTALLATION INFORMATION:

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

ADMINISTRATIVE LEAD-TIME: **4 Months** PRODUCTION LEAD-TIME: **24 Months**

CONTRACT DATES: FY 2006: Jan-06 FY 2007: FY 2008: Jan-08 FY 2009: Jan-09

DELIVERY DATE: FY 2006: Jan-08 FY 2007: FY 2008: Jan-10 FY 2009: Jan-11

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

ADMINISTRATIVE LEAD-TIME: **2 Months** PRODUCTION LEAD-TIME: **4 Months**

CONTRACT DATES: FY 2006: Feb-06 FY 2007: FY 2008: FY 2009:

DELIVERY DATE: FY 2006: Jun-06 FY 2007: FY 2008: FY 2009:

($ in Millions)

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY (84) kits [1,2,3]	55	20.2	6	2.6	18	5.3	5															
FY 2006 (12) kits							7	4.7	5	1.5												
FY 2007 (0) kits																						
FY 2008 (19) kits																						
FY 2009 (19) kits																						
TOTAL	55	20.2	6	2.6	18	5.3	12	4.7	5	1.5												

Notes:

1. 34 "Installation Kits" were purchased with NGRE funds, not included in this OSIP.
2. FY04 Installations are funded with FY02 Congressional add funding.
3. FY05 installations are funded with FY03 Congressional add funding.
4. FY04 installations are for Litening. FY06 installations are for ECP 583.
5. FY09 and later installations are for ECP 583R2.

	FY 2005	FY 2006				FY 2007				FY 2008				FY 2009			
	& Prior	1	2	3	2	1	2	3	4	1	2	3	4	1	2	3	4
In	55	0	2	2	2	0	6	6	6	0	4	4	4	0	0	4	1
Out	55	0	2	2	2	0	6	6	6	0	4	4	4	0	0	4	1

	FY 2010				FY 2011				FY 2012				FY 2013				To	
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	TOTAL
In																		
Out																		

Exhibit P-3a **INDIVIDUAL MODIFICATION**

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

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

DESCRIPTION/JUSTIFICATION:

The Joint Helmet-Mounted Cueing System (JHMCS) is a multi-service system that provides United States Air Force (USAF), United States Navy (USN), and United States Marine Corps (USMC) aircraft the capability to cue and verify on-board weapons and weapons sensors to a specific azimuth/elevation determined by the pilot's head position and to confirm sensor line-of-sight. The intent is to reduce tasks required of aircrews, verify seeker/sensor position, and enhance weapons employment opportunities. In the air-to-air role, the aircrew will be able to cue and verify cueing of off-boresight weapon sensors and weapons (current and future short-range air-to-air missiles) to exploit the full weapons envelopes in the dynamic Within Visual Range (WVR) arena. In the air-to-ground role, this system will enhance lethality and survivability by reducing cockpit "heads down" and target acquisition time. For the strike, strike escort, and force application missions, the JHMCS possesses potential to enhance the flexibility of cueing weapons and sensors in the stressful air-to-ground tactical environment. The JHMCS incorporates an ejection-compatible helmet-mounted display system, with capability to cue and verify cueing of high off-axis sensors and weapons, on USAF and USN single seat and two seat fighter aircraft. The JHMCS includes a flight helmet with display optics, image source, display processor/video hardware and software to drive the display, uplook reticle, magnetic helmet tracker hardware and software, interfaces to the aircraft computers, weapons and sensor hardware, with software to integrate the JHMCS functions with other onboard systems. The JHMCS communicates with airborne sensors (FLIR, Radar) through the aircraft avionics MUX Bus. It communicates with weapons through the armament MUX Bus via the Stores Management System. 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 on 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 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.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

F/A-18E/F JHMCS completed Developmental Testing in August 2001. Operational Test (OPEVAL) was completed in April 2002. F/A-18E/F retrofit kit procurement began in FY 2004 and installed in FY 2005 starting with Lot 23 aircraft. JHMCS procurement for F/A-18C/D was approved a a milestone decision in January 2004. AFT Seat development completes in FY06. 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 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		FY2012		FY2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E		79.0		12.7																		
PROCUREMENT																						
Installation Kits																						
C/D	42	4.4	60	5.8	42	6.3	40	5.2	39	4.1												
E/F	17	0.8	12	1.4	10	1.2	21	2.6	22	2.8												
Canopy A Kits (AYC-1321)			90	0.5	52	1.0	67	0.4	53	0.3												
Ejection Seat A Kits (ACC-695)	52	0.4	74	0.4	58	0.4	58	0.4	50	0.3												
Installation Kits N/R		13.5		6.3		1.1		1.1		1.2												
Installation Equipment																						
C/D	92	20.6	40	11.2	40	10.6	40	9.4	39	9.6												
E/F	17	3.3			10	2.6	21	4.1	22	4.3												
Installation Equipment N/R				1.9																		
Engineering Change Orders																						
Data		3.0		2.6																		
Training																						
Support Equipment	44	3.1	37	2.7	24	0.9	19	1.8	20	2.1												
ILS		7.3		4.5		8.1		3.8		6.8												
Spares																						
Other Support - Testing						1.6																
Installation Cost	2	0.2	18	0.4	43	4.7	72	7.3	52	7.5												
TOTAL PROCUREMENT		56.6		37.8		38.7		36.1		39.0												

Notes:

1. Totals may not add due to rounding
2. "Installation Equipment" is procured one year prior to "Installation Kits" due to a year greater production leadtime.
3. "Installation Kit" and "Installation Cost" unit costs begin to increase in FY 2006 and FY 2007 respectively due to introduction of Aft Seat JHMCS capability.
4. "Installation Cost" includes installation of 2 Validation and 2 Verification Kits in FY05 and FY06 respectively. These kits were procured as part of the Installation Kits Non-Recurring in FY04.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **F/A-18C/D/E/F**

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

INSTALLATION INFORMATION: **APPROX 5 KITS INSTALLED EVERY 4 WEEKS**

METHOD OF IMPLEMENTATION: **FIELD MOD TEAMS**

ADMINISTRATIVE LEAD-TIME: **4 Months**

PRODUCTION LEAD-TIME: **24 Months**

CONTRACT DATES: FY 2006: Feb-06 FY 2007: Feb-07 FY 2008: Feb-08 FY 2009: Feb-09

DELIVERY DATE: FY 2006: Feb-08 FY 2007: Feb-09 FY 2008: Feb-10 FY 2009: Feb-11

($ in Millions)

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY2009		FY2010		FY2011		FY2012		FY2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY (63) kits	2	0.2	18	0.4	43	4.7																
FY 2006 (72) kits							72	7.3														
FY 2007 (52) kits									52	7.5												
FY 2008 (61) kits																						
FY 2009 (61) kits																						
TOTAL	2	0.2	18	0.4	43	4.7	72	7.3	52	7.5												

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY2009				FY2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	2	4	4	5	5	10	10	10	13	16	16	20	20	11	11	15	15				
Out	2	4	4	5	5	10	10	10	13	16	16	20	20	11	11	15	15				

	FY2011				FY2012				FY2013				To Complete	TOTAL
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Exhibit P-3a **INDIVIDUAL MODIFICATION**

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

MODELS OF SYSTEM AFFECTED: **F/A-18A+/C/D/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 with a significantly enhanced capability to detect, track and attack air and ground targets. New laser guided and GPS standoff weapon systems and higher altitude attack profiles require improved performance over the current AAS-38/46 Targeting FLIR. The ATFLIR currently utilizes the 3rd generation of FLIR technology. The ATFLIR is designed to provide a quantum leap in operational effectiveness to fully support the standoff precision strike mission. Improved reliability and maintainability technology will increase operational availability while reducing life cycle costs. This OSIP is also being 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 .

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

ATFLIR development began in FY1997. OPEVAL testing was completed in June 2003 and the OPEVAL report was issued 4 September 2003. Full Rate Production approval was given in October 2003. NAVFLIR capability was removed from the system in December 2003.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		FY2012		FY2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E		275.6																				
PROCUREMENT																						
Installation Kits																						
Installation Kits N/R																						
Installation Equipment(C/D)	93	237.0	50	93.0	46	87.4	29	58.6	19	46.5												
Installation Equipment(E/F)																						
Installation Equipment N/R		31.2																				
Engineering Change Orders		7.1		6.4		16.7		12.3		9.1												
Data		5.3				3.2		*														
Training		3.0		0.4		0.4		*														
Support Equipment		29.3		9.4		7.2		0.3		0.3												
ILS		31.1		16.5		11.5		10.0		7.0												
Spares																						
Other Support																						
Installation Cost																						
TOTAL PROCUREMENT		344.0		125.6		126.4		81.4		62.9												

Notes:
1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. 8 "A Kits" used for Validation/Verification will not be installed on aircraft.
4. 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: **E/F 2000 HR CORRECTION OF DISCREPANCIES (OSIP 019-01)**

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

DESCRIPTION/JUSTIFICATION:

Corrections to Discrepancies up to 2000 Flight Hours identified during development testing and fleet operations 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 transition plan and achieve planned life limits. These corrections modify, improve and restore aircraft structural safety and reliability to designed full life limits. This OSIP also is used to correct safety related issues.

TEF, AIL, & AIL Shroud Hinges, **(ECP-6035 PT1)**	Replace hinges on trailing edge flap, aileron and aileron shroud with redesigned hinges to prevent potential departure of flight control surfaces in flight.
Drag Angle, **(ECP-6136)**	Install redesigned wing drag angle to correct acoustic vibration related fatigue failures.
Idle Hinge, NLG R/H Forward Door **(ECP-6032)**	Retrofit redesigned hinge to restore component to its original specification.
Strut Door Attach Former @ Y520, **(ECP-6057)**	Replace with redesigned hinge and clevis, and install bushing into Y520 former to restore component to its original specification.
Drive Hinge, NLG R/H Forward Door, **(ECP-6137)**	Incorporate redesigned drive hinge to prevent potential departure of component in flight.
Y541 Fitting Repair Crack, **(ECP-6111)**	Splice redesigned lower appendage area into Y541 former to restore component to original specification.
ECS Primary Heat Exchanger, **(ECP-6078)**	Replace noncompliant heat exchanger with redesigned full life component and new ECS duct.
LEX Diverter Apex Fitting @ Y383, **(ECP-6041)**	Retrofit with redesigned apex fitting to restore component to its original specification.
MLG Sidebrace Pin, **(ECP-6099)**	Fit MLG with redesigned pin to prevent possible collapse of MLG during arrestments.
Heat Exchanger Cover (Door 55) Hole Wear, **(ECP-6086)**	Retrofit fasteners with steel bushings to prevent distribution of stress into fuselage components.
Outer Wing Substructure, Hinge kit & Wing Torque Box kit, **(ECP-6035 PT2)**	Remove noncompliant TEF and aileron hinges on wing torque box and replace with full life hinges.
Ecology Tank Flange Changes, **(ECP-6100)**	Incorporate redesigned ecology tank and modify mount on the door to prevent tank separation.
Center Keel Intercoaster @ Y627, **(ECP-6092)**	Replace component to restore aircraft to original structural integrity.
Fuel Floor Support Angle @ Y470, **(ECP-6128)**	Add titanium bathtub fittings and replace fuel floor to increase fuel floor land area.
Inlet Duct Stiffener, **(ECP-6094)**	Remove & replace with new design Inlet Duct Stiffener to correct design deficiency.
Keel Access Cover @ Y631-Y645, **(ECP-6118)**	Replace Keel Web with redesigned component to conform to original aircraft specification.
Upper Keel Web Stringer @ Y659, **(ECP-6067)**	Install doublers to restore component to its original service life.
Keel Web Fittings Aft of Y472, **(ECP-6127)**	Install doublers to restore component to its original service life.
Visual Identification System **(ECP-6052)**	Provide Pattern Strobe Light System and Circuit Logic Change cues to distinguish E/F from C/D at night.
AOA/PITOT Probe Circuitry Change & Boarding Ladder/Canopy Switch, **(ECP-6165)**	Retrofit redesigned AOA Probe Circuitry to prevent potential safety hazard and relocation of boarding ladder switch to preclude inadvertent actuation of the canopy switch, resulting in the possible closing of aircraft canopy on personnel.
Keel Web, **(ECP-XXX7)**	Replace Keel Web with redesigned component to conform to original aircraft specification.
ECS/ APU Bay Sealing Issues (**ECP-6231)**	To prevent the PAO/Air Heat Exchanger Coolant from leaking into the ECS pack bay.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Each change has been or will be tested prior to installation in the F/A-18.
Some ECPs are "O" Level Installs.

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **E/F 2000 HR CORRECTION OF DISCREPANCIES (OSIP 019-01)**

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

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
ECP 6035PT1/ TEF, AIL, & AIL Shroud Hinges	12	3.4																				
ECP 6136 / Drag Angle	12	0.2																				
ECP 6032 / Idle Hinge, NLG R/H Forward Door	12	*																				
ECP 6057 / Strut Door Attach Former @Y520	12	0.3																				
ECP 6137 / Drive Hinge, NLG R/H Forward Door	110	0.3																				
ECP 6111 / Y541 Fitting Repair Crack	79	3.2																				
ECP 6078 / ECS Primary Heat Exchanger					36	0.2																
ECP 6041 / LEX Diverter Apex Fitting @Y383	12	0.3																				
ECP 6099 / MLG Sidebrace Pin	12	*																				
ECP 6086 / Heat Exchanger Cover (Door 55) Hole Wear	12	*																				
ECP 6035PT2 / Outer Wing Substructure, Hinge kit & Wing Torque Box kit	100	2.5																				
ECP 6100 / Ecology Tank Flange Changes	27	0.4																				
ECP 6092 / Center Keel Intercoaster @Y627	12	0.2																				
ECP 6128 / Fuel Floor Support Angle@Y470	91	0.8																				
ECP 6094 / Inlet Duct Stiffener	9	0.1																				
ECP 6118 / Keel Access Cover @Y631-Y645	126	1.2																				
ECP 6067 / Upper Keel Web Stringer @Y659	46	0.3																				
ECP 6127 / Keel Web Fitting Aft @Y472	72	0.8																				
ECP 6052 / Visual Identifcation System	32	2.1																				
ECP 6165 /AOA PITOT Probe Circuitry Change & Boarding Ladder/Canopy Switch	135	0.2																				
ECP XXX7 / Keel Web			36	0.2	36	0.3	36	0.2	36	0.2												
Installation Kits N/R		6.2		0.5																		
Installation Equipment																						
Installation Equipment N/R																						
Engineering Change Orders																						
Data		0.8		*																		
Training Equipment																						
Support Equipment																						
ILS		1.5		0.3		0.2																
Other Support																						
Interim Contractor Support																						
Installation Cost	522	7.1	204	1.0	127	1.3	281	0.4	224	*												
TOTAL PROCUREMENT		31.8		2.0		1.9		0.6		0.2												

Notes:
1. Total may not add due to rounding.
2. Asterisk indicates amount less than $50K
3. Procurement unit cost for ECP 6035PT2 is dependent of Lot of aircraft being retrofit due to multiple Technical Directives.
4. Update required based on FY02 MAGR procurement $2,548K from OSIP 19-01.
5. Some ECPs were procured under warranty with Boeing, we only pay for installs.

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **F/A-18C/D DIGITAL WINGTIP MOD FOR AIM-9X COMPATIBILITY (OSIP 05-02)**

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

DESCRIPTION/JUSTIFICATION:

The AIM-9X Joint Operation Document (JORD), ORD# USN-CAF (USAF 001-93)-IIA, requires a highly expanded off-boresight targeting capability that presently cannot be achieved with the current AIM-9M analog interface signal set. The JORD also requires the missile to communicate with the aircraft through a digital interface. The F/A-18 currently has a tailored MIL-STD-1760 interface on stations 2 through 8. Modifications to the outer wing panel and LAU-7 launcher provide full digital capability to the wingtip and can support full AIM-9X capability. The current launcher support equipment (AWM-100) must also be modified to support/test this digital wingtip capability. AWM-100 are "O" level installations.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

The AIM-9X missile is on contract for LRIP 1, 2 and 3 deliveries, with the LRIP 1 delivery complete. Operational test has been completed and the AIM-9X program Milestone III (FRP) was approved in 2004.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2006		FY2007		FY2008		FY2009		FY2010		FY2011		FY2012		FY2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
F/A-18 Digital Wingtip Kits	225	0.4	9	*	20	*	48	0.1	21	*												
Installation Kits N/R	2	*																				
Installation Equipment																						
Installation Equipment N/R																						
Engineering Change Orders																						
Data																						
Training																						
Support Equipment																						
ILS		0.1		*		0.1		*		0.2												
Spares																						
Other Support - Testing						0.6																
Installation Cost	210	1.5	15	0.2	9	0.1	20	0.1	48	0.3												
TOTAL PROCUREMENT		1.9		0.2		0.8		0.2		0.5												

Notes:
1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **F/A-18C/D**

MODIFICATION TITLE: **F/A-18C/D DIGITAL WINGTIP MOD FOR AIM-9X COMPATIBILITY (OSIP 05-02)**

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **D-Level Install for Digital Wingtip Mod with Field Mod Teams, O-Level Install for AWM-100**

ADMINISTRATIVE LEAD-TIME: **2 Months**

PRODUCTION LEAD-TIME: **12 Months**

CONTRACT DATES: FY 2006: Dec-05 FY 2007: Dec-06 FY 2008: Dec-07 FY 2009: Dec-08

DELIVERY DATE: FY 2006: Dec-06 FY 2007: Dec-07 FY 2008: Dec-08 FY 2009: Dec-09

($ in Millions)

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY2009		FY2010		FY2011		FY2012		FY2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY (225) kits	210	1.5	15	0.2																		
FY 2006 (9) kits					9	0.1																
FY 2007 (20) kits							20	0.1														
FY 2008 (48) kits									48	0.3												
FY 2009 (21) kits																						
TOTAL	210	1.5	15	0.2	9	0.1	20	0.1	48	0.3												

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY2009				FY2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	210	0	5	5	5	2	2	2	3	5	5	5	5	12	12	12	12				
Out	210	0	5	5	5	2	2	2	3	5	5	5	5	12	12	12	12				

	FY2011				FY2012				FY2013				To Complete	TOTAL
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **C/D TRAINING SYSTEM (OSIP 06-02)**

MODELS OF SYSTEM AFFECTED: **F/A-18C/D** TYPE MODIFICATION: **TRAINERS UPGRADE**

DESCRIPTION/JUSTIFICATION:

F/A-18C/D training funds will be used to meet current Fleet Readiness Squadron (FRS) requirements by purchasing new components and software to prevent obsolescence of the various trainers as F/A-18C/D aircraft are modified for capability enhancement and service life extension. Funding will also be used to update courseware and computer based training (CBT) as new capabilities are introduced to the fleet, and will enable the fleet to institute an aggressive post-FRS training environment to bring F/A-18C/D trainers into High Level Architecture (HLA) compliance.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2006		FY2007		FY2008		FY2009		FY 2010		FY2011		FY2012		FY2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
Installation Kits N/R																						
Installation Equipment																						
Installation Equipment N/R																						
Engineering Change Orders																						
Data																						
Training		56.1		11.7		6.7		6.8		6.8												
Support Equipment																						
ILS																						
Spares																						
Other Support - Testing																						
Installation Cost																						
TOTAL PROCUREMENT		56.1		11.7		6.7		6.8		6.8												

Notes:
1. Totals may not add due to rounding

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **E/F 4000 HR CORRECTION OF DISCREPANCIES (OSIP 012-03)**

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

DESCRIPTION/JUSTIFICATION:

Corrections to Discrepancies up to 4000 Flight Hours identified during testing and development can sometimes be incorporated into production aircraft, effective with the physical configuration audit which establishes the product baseline of the aircraft. However, when this cannot be done due to time constraints, retrofit of the changes into already delivered aircraft requires funding through the Aircraft Modification Program. Corrections to the following items/conditions are required to meet the F/A-18 E/F transition plan and achieve planned life limits. Correct operational discrepancies discovered during testing and evaluations and during fleet operations. Modify, improve, retrofit, and restore aircraft structural safety and reliability to designed full life limits.

LEX Cracks Redesign, **(ECP-6126)**	Replace 50% of intermediate Spar; add bathtub fittings 4 locations; replace rib to restore aircraft to design life
Bootstrap at Several Locations (After Interim Fix), **(ECP-6029)**	Replace bootstrap and Y645 Outboard Former with redesigned components to meet specification life
Dorsal Cover (Door 40) Hole Elongation, **(ECP-6085)**	Incorporate redesigned door to prevent potential departure of component in flight
Door 317 Hole Elongation, **(ECP-6120)**	Incorporate redesigned door to prevent potential departure of component in flight
Side Longeron Web @ Y510 **(ECP-6129)**	Remove and replace Longeron Web with thicker web to restore component to its original specification.
Aft Fuselage Inboard Former Crack @Y618, **(ECP-6135)**	Replace stringer, upper / lower keel webs and stiffener to restore aircraft to original structural integrity
LEX Doors – Upper Center & Aft, **(ECP-6009)**	Install door with thicker lands and thicker hat stiffeners end to correct acoustic vibration related fatigue
Lower Outboard Longeron @ Y555, **(ECP-6141)**	Cold work nutplate holes and add clip to correct design deficiency
Inlet Duct Stiffener @Y568, **(ECP-6143)**	Installation of a structural clip to the shroud in order to prevent buckling
Y472.5 Blkd Fatigue Crks @ MLG Trunion, **(ECP-6157)**	Blend bulkhead to prevent distribution of stress into components. (Installation costs only)
Missile Launcher Bay Clost Out Web, **(ECP-6142)**	Install doublers to restore component to its original service life
Lower Outboard Longeron Cracks, **(ECP-6138)**	Brings structure back to original specification by adding a doubler to the structure

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Each change has been or will be tested prior to installation in the F/A-18.
Some ECPs are "O" Level Installs

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **E/F 4000 HR CORRECTION OF DISCREPANCIES (OSIP 012-03)**

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

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
ECP 6126 / LEX Cracks Redesign	62	0.1																				
ECP 6029 / Bootstrap at Several Locations (After Interim Fix)																						
ECP 6085 / Dorsal Cover (Door 40) Hole Elongation	53	1.9																				
ECP 6120 / Door 317 Hole Elongation	79	1.3																				
ECP 6129 /Side Longeron Web @ Y510	87	*																				
ECP 6135 / Aft Fuselage Inboard Former Crack @ Y618	135	0.6																				
ECP 6009 / LEX Doors Upper Center & Aft	32	*																				
ECP 6141 / Lower Outboard Longeron @ Y555																						
ECP 6143 / Inlet Duct Stiffener @Y568	89	0.5																				
ECP 6157 / Y472.5 Blkd Fatigue Crks MLG Trunion	48	0.2																				
ECP 6142 / Missile Launcher Bay Close Out Web	72	0.2	36	0.1	26	0.1																
ECP 6138 / Lower Outboard Longeron Cracks	62	*																				
ECP 6163/ Dissimilar Metals, Main Landing Gear Wheel Well																						
ECP 6173/ DOOR 630 Goose Neck Hinge																						
Installation Kits N/R		1.9																				
Installation Equipment																						
Installation Equipment N/R																						
Engineering Change Orders																						
Data		0.2																				
Training Equipment																						
Support Equipment																						
ILS		0.5		0.3		0.7																
Other Support																						
Interim Contractor Support																						
Installation Cost	222	1.1	18	0.4	95	1.0	134	0.5	93													
TOTAL PROCUREMENT		8.7		0.8		1.8		0.5														

Notes:
1. Totals may not add due to rounding.
2. Asterisk indicates amount less than $50K.
3. Total quantity of installations exceeds the "Installation Kit" procurement quantity by 82 due to ECP 6157, which does not require an "installation kit" to complete the modification.
4. ECP 6126 includes multiple airframe changes with different pricing dependent on aircraft Lot.
5. The 93 Install Quantity in FY2009 are warranty installs at no cost.

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **E/F 6000 HR CORRECTION OF DISCREPANCIES (OSIP 013-03)**

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

DESCRIPTION/JUSTIFICATION:

Corrections to Discrepancies up to 6000 Flight Hours identified during testing and development can sometimes be incorporated into production aircraft, effective with the physical configuration audit which establishes the product baseline of the aircraft. However, when this cannot be done due to time constraints, retrofit of the changes into already delivered aircraft requires funding through the Aircraft Modification Program. Corrections to the following items/conditions are required to meet the F/A-18 E/F transition plan and achieve planned life limits. Correct operational discrepancies discovered during testing and evaluations and during fleet operations. Modify, improve, retrofit, and restore aircraft structural safety and reliability to designed full life limits. .

Y577 Frame Flnge @ Door 55, **(ECP-6154)**	Add bathtub fitting to restore aircraft to original structural integrity
12K SFH Y461 Clip Crack, **(ECP-6144)**	Replace fatigued clip with a redesigned clip to meet design life
Y591 Bulkhead Stiffner Fillet Crack, **(ECP-6160)**	Add nested fitting to restore aircraft to original structural integrity
Keel Longerons @ Y555 Former, **(ECP-6117)**	Add structural backup to former to meet specification life
Outboard Longeron Splice Fasteners @ Y591, **(ECP-6119)**	Remove and replace splice fitting and fasteners to restore aircraft to original structural integrity
Upper Outboard Longeron @ Y631, **(ECP-6124)**	Remove and replace hi-lok fastener to restore aircraft to original structural integrity
Nacelle Skin Failed Fastener @ Y694, **(ECP-6107)**	Replace fastener with oversize fastener to correct design deficiency
Y679 Former Fasteners, **(ECP-6123)**	Replace with new material fastener to restore aircraft to original structural integrity
Y604 UOB Long, **(ECP-6134)**	Blend away material from downstanding leg to prevent distribution of stress
Missile Beam Web, Aft of Y541, **(ECP-6132)**	Add doubler to restore component to its original service life
AMAD Door 53R (Install work only), **(ECP 6169)**	Correction of possible interference condition existing between the right hand generator and a hat stiffener on the AMAD bay door 53R

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

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

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **E/F 6000 HR CORRECTION OF DISCREPANCIES (OSIP 013-03)**

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

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
ECP 6154 / Y577 Frame Finge @ Door 55	117	*																				
ECP 6144 / 12K SFH Y461 Clip Crack	136	0.2																				
ECP 6160 / Y591 Bulkhead Stiffner Fillet Crack	135	0.5																				
ECP 6117 / Keel Longerons @Y555 Former																						
ECP 6119 / Outboard Longeron Splice Fasteners @ Y591																						
ECP 6124 / Upper Outboard Longeron @Y631																						
ECP 6107 / Nacelle Skin Failed Fastener @Y694	47	*																				
ECP 6123 / Y679 Former Fasteners	63	*																				
ECP 6134 / Y604 UOB Long																						
ECP 6132 / Missile Beam Web, Aft @Y541																						
ECP 6169/ AMAD DOOR Generator #53R			43	0.1																		
Installation Kits N/R		0.7		*		*																
Installation Equipment																						
Installation Equipment N/R																						
Engineering Change Orders																						
Data		0.1		*		*																
Training Equipment																						
Support Equipment																						
ILS		0.5		0.3		*																
Other Support																						
Interim Contractor Support																						
Installation Cost	181	1.1	15	0.2	127	1.2	113	*	121	*												
TOTAL PROCUREMENT		3.2		0.6		1.2		*		*												

Notes:
1. Total may not add due to rounding.
2. Asterisk indicates amount less than $50K
3. "Installation Kit" procurement quantity exceeds "Installation" quantity due to 16 Validation/Verification kits.

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **E/F & EA-18G CORRECTION OF OPERATIONAL DISCREPANCIES (OSIP 014-03)**

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

DESCRIPTION/JUSTIFICATION:

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. Correct operational discrepancies discovered during testing and evaluations and during fleet operations. Modify, improve, retrofit, and restore aircraft structural safety and reliability to designed full life limits.

ECS Exhaust Overtemp Final Fix/Bard Stacks, **(ECP-6106R1)**	Modifies current exhaust ducts in order to reduce skin and structural temperatures caused by the ECS exhaust plume
Aft ECS Cooling Fan, **(ECP-6114)**	Strengthens ECS cooling fan to prevent and contain fan failures
FCC Processor Upgrade, **(ECP-6002)**	Replace existing FCC processor with upgraded higher order processors
MLG Door Bushing Migration, **(ECP-6104)**	Improved bushing retention for MLG Door hinge attach points
AFT Fuselage Outbd Former Fwd Flange @ Y645, **(ECP-6088)**	Repair former by adding a doubler to bring it back to original specification
MLG Trunnion Bearing Loose Retention Nut, **(ECP-6194)**	Replacing bearing retention nut with an improved retention nut
Long Stick Position, **(ECP-XXX2)**	Incorporation of improved retention mechanism in position sensor
SKIN 12 Stiffener Back-up Structure, **(ECP-6171)**	Strengthen the Centerline Structure to meet 2000 catapult requirement
AFT Fan Shutoff Valve, **(ECP-6199)**	Modify the Aft Fan with an Improved Shut-Off Valve
Radar Altimeter Antenna Radome Delineation, **(ECP-XXX8)**	Drill hole in door to allow escape of moisture accumulation in order to prevent corrosion of the antenna
Leading Edge Extension (LEX) Lower Surface/Structure Cracks Redesign, **(ECP-6193R1)**	Modifies LEX structure to prevent cracks induced from aerodynamic loads
MLG Outboard Tire Door Clevis, **(ECP-6145)**	Redesign clevis to eliminate cracking imparted during gear cycling
FT50 Y436 Inlet Former, **(ECP-6188)**	Introduces strengthened design to prevent cracking
Keel Beam Lower Cap Cracks, **(ECP-6203)**	Redesign the existing keel beam lower cap at the arresting hook uplatch mechanism. Increase the thickness of the lower flange and web in this local area to handle the inertia loads from the arresting hook while its latched in the stowed position Modifies Keel To Prevent Future Cracking
FT50 Teardown Bulkhead Cracking, **(ECP-XX12)**	Modifies bulkhead to prevent cracking discovered during FT50 testing
FT-50 Failure of Upper Wing Skin Splice Plate, **(ECP-6183)**	Redesigned Upper Wing Skin Splice Plate to address failures observed during fatigue testing
DOOR 49 Replacement, **(ECP-6098C1)**	Replace Door 49 for holes found elongated beyond spec.
Horizontal Actuator Cover-Door 71, **(ECP-6068)**	Improved fasteners to prevent deformation introduced by flight loads
MLG R/H Upper Planing Link Attach Fitting Failure, **(ECP-6196C1)**	Redesign existing planing link attach fittings
LEX Vent Mechanism Support Assembly Rod End Clevis Failure, **(ECP-6208)**	Redesign and strengthen door actuator
Fuel Wash Filter Enhancement, **(ECP-6216)**	Upgrade the Fuel Wash Filter to address a design deficiency which allows bypass of FO to the LDFS. Create a simpler and lower cost design for production and retrofit. Retrofit is required for A/C in the fleet with Tube Assemblies produced before sealant was applied to prevent filter bypass
ECS Ejector Cracks, **(ECP-6255)**	Modify ECS ejector to prevent cracks from being induced
MLG Door Uplock, **(ECP-XX18)**	Improves Uplock ability to overcome increased loads due to MLG Door icing
Cockpit Pressure Warning System (CPWS), **(ECP-6217)**	Provides a warning system to identify a possible insidious cabin pressure loss that could result in crew hypoxia and possible A/C loss
MLG Strut Door Departures, **(ECP-6235)**	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.
HOL Follow-On Upgrades Lot 25 & Up, **(ECP-XX21)**	Mission Computer BIT performance upgrades & enhancements for aircraft with Higher Order Language (HOL)
18E Follow-On Upgrades Lot 24 & Below, **(ECP-XX22)**	Mission Computer BIT performance upgrades & enhancements for aircraft without Higher Order Language (HOL)
MLG Proximity Switches & Sidebrace Down lock Mechanism, **(ECP-6076)**	Modify down lock actuator assembly, jury link; replace lock plate & proximity switches
Fuel System Ground Pressurization Tube Water Entrapment, **(ECP-6190)**	Change manual drain valve to automatic drain valve to ensure that no water is trapped in the fuel system.
Wing Modification for Transonic Flying Qualities Improvement, **(ECP-6191)**	Modify the wing and flight control surfaces to improve the flying qualities of the aircraft when flying above the speed of sound.
Radar Bay Vent Valve Fail - MSP 862, **(ECP-6198)**	To eliminate the Radar Bay Vent Valve failures (MSP 862 code). The condition was traced to an excessive voltage drop to the valve, a result of the Radar Bay Vent Valve circuit change which incorporated Forward Avionics Fan Delay Logic.
Y679 Former Boot Strap Interface Fillet Seal Missing, **(ECP-6206)**	Retrofit will consist of applying Fillet seal/brush coating to entire edge of lower leg of Support that interfaces with "Y679" Former
ECS Cooling Duct Grounding Strap, **(ECP-6209)**	Add a grounding strap to prevent accidental static discharge to an aircraft maintainer
ARS Lighting, **(ECP-XXX23)**	Add lighting to the ARS pod to improve the visibility of the tanking aircraft during night time refueling operations
NVG Friendly NAV Lighting, **(ECP-XXX24)**	Modify cockpit lighting to be more friendly with night vision goggles (NVG)
Bay 4L Equipment Bay Life Limits, **(ECP-6221)**	Retrofit Will Eddy Current Inspect and Install 1st Oversize Interface Fit Fasteners (14 Fasteners at Y326 & 5 Fasteners at Y357). Final Retrofit Redesign will Install New J-Beam, New Clips, Oversize Fasteners, New Post Support and New Dagger Pins.
Y591 Bulkhead Missing Fasteners at Keel Longeron, **(ECP-6262)**	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 for the FT-50 configuration. Current build aircraft are missing 4 fasteners. Test Correlation analysis indicates the
Fatigue Testing - Teardown, **(ECP-XXX27)**	Correct cracks in various other structural components found during teardown of various fatigue test articles
Wing-Aft Shear Tie Bushing Migration, **(ECP-6241)**	Bushing migration will reduce the contact bearing area on the spars reducing fatigue life to less than spec requirements.
HS1 Reservoir Chafe, **(ECP-XXX29)**	Correct chafing condition between the hydraulic reservoir and structural components of the aircraft
TEF Clip Fatigue Prevention, **(ECP-6213)**	The trailing edge flap experienced a fatigue failure during ground testing. This change incorporates improvements to the trailing edge flap to assure fatigue life requirements are met
Boarding Ladder Sensors Improvement, **(ECP-XXX30)**	Improve boarding ladder sensors to prevent incorrect stowage indications
Brake Piston Assy Redesign , **(ECP-XXX31)**	Redesign the brake piston assembly to improve reliability
Inlet Ice Detector Hardware Redesign , **(ECP-XXX32)**	Redesign the ice detector system to reduce the number of false positives
Inadequate Clearance Between APU SCV and Structure, **(ECP-6211)**	Correct chafing condition between aircraft structural material and the APU SCV to prevent damage to the aircraft structure
Wing - Fuel Probe 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-XXX33)**	To improve reliability of the Hydraulic components failures
480 Gallon External Fuel Tank Valve Replacement, **(ECP-XXX34)**	Full life retrofit of the external fuel valve
MLG Door Departure and Flight Redesign (Final Fix), **(ECP-XXX35)**	Final and full life fix of issues under ECP-6235
ECP-XXX36/ Fire Bottle Bay Over-Temperature, **(ECP-XXX36)**	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
ECS COMPONENTS INCREASE VIBRATION LOAD ISSUES, **(ECP-XXX38)**	Redesign/Re-qualify of ECS hardware to actual A/C Environment
ECP-XXX39 / AFT Engine Mount Attach Fitting, **(ECP-XXX39)**	Full life retrofit fix of the AFT engine mount pin
ECP-XXX40 / V38 OFP UPGRADES, **(ECP-XXX40)**	Software Upgrade

ECP-JAX-SE-027 / G81S00004 SE UPGRADE, **(ECP-JAX-SE-027)**	To support the F/A18 Interconnect Bob (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, this ECP adds a walkway mat to the Right Hand Lex to replace existing anti-skid surface
Inlet Nacelle Bleed Plate Crack, **(ECP-6227C1)**	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 Stabilator 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-6239)**	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-6240)**	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 SFH
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. Additionally, several other fasteners had backed out of holes 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-6247)**	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. Test Correlation analysis indicates the Safe Life is 4550 SFH. The F/A-18E/F contract requires a 6000-hour service life
FT76 L/H 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
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-6275)**	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-6285)**	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
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. The control speed range shall be from maximum ground speed to the lowest speed compatible with ground handling. A condition has occurred on some fielded Skid Control Systems where the combination of left hand transducer and skid control unit results in loss of brakes during extended taxi operations with anti-skid ON
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 of the FT76 Test Article. Failure analysis of FT76 Test Article crack resulted in a safe life determination of 2350 SFH
FT50 18K Access Panel Edge Stiffener Redesign, **(ECP-6293)**	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, **(ECP-6294)**	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
EA-18G Correction of Operational Test Discrepancies (ECP-XXX41)	Redesign / Modify system and / or subsystems discrepancies discovered during OPEVAL.
FT77 Wing Spar 6 Life Limit, **(ECP-6295)**	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

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

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

Exhibit P-3a **INDIVIDUAL MODIFICATION**

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

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

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
ECP 6106R1 / Exhaust Overtemp Final Fix/Bard Stacks	223	16.0			17	0.9																
ECP 6114 / Aft ECS Cooling Fan	12	0.1																				
ECP 6002 / FCC Processor Upgrade	28	1.3																				
ECP 6104 / MLG Door Bushing Migration	32	0.1																				
ECP 6088 / Aft Fuselage Outboard Former Fwd Flange @Y645																						
ECP 6194 / MLG Trunnion Bearing Loose Retention Nut	80	0.3																				
ECP XXX2 / Long Stick Position Tx																						
ECP 6171 / Skin 12 Stiffner Back-up Structure	54	0.1																				
ECP-6199 / Aft Fan Shutoff Valve																						
ECP XXX8 / Radar Altimeter Antenna Radome Delimination					26	0.5	26	0.6														
ECP 6193 Leading Edge Ext (LEX) Lower Surface/Structure Cracks Redesign	89	23.9																				
ECP 6145 / MLG Outboard Tire Door Clevis																						
ECP 6188 / Y436 Inlet Former	183	1.9			36	0.4																
ECP 6203 / FT50 Keel Beam Lower Cap	38	0.1																				
ECP XX12 / FT50 Teardown Bulkhead Cracking					36	0.4																
ECP 6183 / FT50 Failure of Upper Wing Skin Splice Plate			36	*	36	0.2	36	*	36	*												
ECP 6098C1 / DOOR 49 Replacement	12	0.2																				
ECP 6068 / Horizontal Actuator Vocer Door 71	62	1.1																				
ECP 6196C1 / MLG R/H Upper Planing Link Attach Fitting Failure	36	0.1	51	0.2	12	*																
ECP 6208 / LEX Vent Mechanism Support Assembly Rod end Clevis Failure			92	*																		
ECP 6216 / LDS Fuel Wash Filter			36	0.3	36	0.2																
ECP 6255 / ECS Ejector Cracks					36	0.3	36	0.3	36	0.3												
ECP XX18 / MLG Door Uplock					36	0.1	36	0.1	36	0.1												
ECP 6217 / Cockpit Pressure Warning System (CPWS)	108	0.8	179	1.2	30	0.3																
ECP 6235 / MLG Strut Door Departures			38	*	30	0.1	36	*	36	*												
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	12	0.1	2	*																		
ECP-6190 / Fuel System Ground Pressurization Tube Water Entrapment			54	0.1	36	*																
ECP-6191 / Wing Modification for Transonic Flying Qualities Improvement							36	0.4	36	0.4												
ECP-6198 / Radar Bay Vent Valve Fail - MSP 862			36	*	36	*	5	*														
ECP-6206 / Y679 Former Boot Strap Interface Fillet Seal Missing			36	0.1	36	0.1	8	*														
ECP-6209 / ECS Cooling Duct Grounding Strap																						
ECP-XX23 / ARS Lighting					36	0.1	36	0.1	36	0.1												
ECP-XX24 / NVG Friendly NAV Lighting					36	*	36	*	36	*												
ECP-6221/ Bay $L-Y357 Bulkhead Horizontal Flange Life Limit			109	0.8	36	0.1																
ECP-6262 / Y591 Bulkhead Missing Fasteners at Keel Longeron							36	0.8	36	0.8												
ECP-XX26 / Fatigue Testing - Longeron																						
ECP-XX27 / Fatigue Testing - Teardown					36	0.3	36	0.3	36	0.3												
ECP-6241/ Wing-Aft Shear Tie Bushing Migration			101	0.1	36	0.2																
ECP-XXX29 HS1 Reservoir Chafe					26	*																
ECP-6213 / TEF Clip Fatigue Prevention			36	0.4	36	0.4	34	0.4														
ECP-XX30 / Boarding Ladder Sensors Improvement					36	0.2	36	0.2	36	0.2												
ECP-XXX31 / Main Wheel Brake Changes			2	*	36	0.1																
ECP-XX32 / Inlet Ice Detector Hardware Redesign					36	*	36	*	36	*												
ECP-6219 / Wing - Fuel Probe Corrossion Protecton			136	*	36	*																
ECP-6034 / Procures Common Preamps not funded in Lot 24	36	6.0																				
ECP-6258/FT76 Forward Windshield Bolt Life Limit							36	*	4	*												
ECP-XX33/ Hydraulics Components Improvement					36	*	36	*	36	*												
ECP-XX34/ 480 Gallon External Fuel Tank Valve Replacement					36	0.3	36	0.3	155	1.2												
ECP-XX35/ MLG Door Departure and Flight Redesign (Final Fix)					36	1.1	36	1.1	36	1.1												

1. Total may not add due to rounding.
2. Asterisk indicates amount less than $50K
3. "Installation Kit" procurement quantity exceeds "Installation" quantity due to some kits being installed at the Organizational Level.

ECP-XX36/ Fire Bottle Bay Over-Temperture							36	0.1	36	0.1												
ECP-6282 FT77 Wing Pylon Changes							36	0.4	36	0.4												
ECP-XX38 / ECS Componets Increase Vibration Load Issues							36	0.3	36	0.3												
ECP-XX39 / ECP-XXX39 / AFT Engine Mount Attach Fittin																						
ECP-XX40 / ECP-XXX40 / V38 OFP UPGRADES							36	0.1	36	0.1												
ECP-JAX-SE- ECP-JAX-SE-027 / G81S00004 SE UPGRADE,																						
ECP-6075 Hornet Feather (Vane) Wear PAD Retention System Redesign,																						
ECP-IRRHB-0147 Repeatable Release Holdback Bar,	85	0.4																				
ECP-6283 LEX Right Hand Walkway Mat,			268	0.2																		
ECP-6227C1 Inlet Nacelle Bleed Plate Crack,							36	0.5	36	0.5												
ECP-6228/ Throttle Electronics Module Seal Improvement							36	0.5	36	0.5												
ECP-6234 Horizontal Stabilizer/Fuselage Rubbing							20	0.3														
ECP-6238 Inadequate Clearance b/w APU Surge Control Valve and Y568 Support,							36	*	36	*												
ECP-6239 FT50 18k Fuselage Outboard Former @ Y679 Failure,							36	0.1	36	0.1												
ECP-6240 FT50 18K MLG Sidebrace Fitting Failure,																						
ECP-6243 FT76 Jackpoint Support Fitting Life Limit,							14	*														
ECP-6245 INBOARD WING CLOSURE BOLT, ANTI-ROTATION RETAINER.							36	0.1	36	0.1												
ECP-6246 FT76 Y301 Sheet Metal Routing Closure Life Limit,							6	*														
ECP-6247 FT50 18K Y520 Former Cracks at Lower Drop Link,																						
ECP-6248 Tank 1 Improvements - Vent Cap Addition,																						
ECP-6249 Nut Plate Installation Sealing, ECP-6249 Nut Plate Installation Sealing,							36	0.1	36	0.1												
ECP-6256 FT76 Bay 3-4 Avionics Door Seal Support,							16	*														
ECP-6257 HFC-125 Fire Extinguisher Mount - Final Corrective Action,							36	0.1	36	0.1												
ECP-6259 FT76 Z90 Longeron Life LimitECP-6259 FT76 Z90 Longeron Life Limit							14	*														
ECP-6260 FT50 18K Y491 Bulkhead Redesign,																						
ECP-6261 FT76 L/H LEX Intermediate SPAR Life Limit,							7	*														
ECP-6263 RH LEX CLOSURE AT Y301 LIFE LIMIT,							11	*														
ECP-6264 FT50 Y436 BULKHEAD LIFE LIMIT,																						
ECP-6269 / FT76 Aft Windshield Attach Bolt Life Limit																						
ECP-6270 FT76 LH LEX Closure at Y265,ECP-6270 FT76 LH LEX Closure at Y265,							25	0.5														
ECP-6271 FT76 NLG Retract Actuator Supports & X7 Keel,							14	*														
ECP-6275 FT77 Wing Inboard Closure Rib Life Limit,							36	0.5	62	0.9												
ECP-6276 FT76 LEX Intermediate Spar at Y301 Life Limit,							25	0.1														
ECP-6278 FT76 Canopy Sill Longeron and Upper Nose Barrel Longeron at Y204 Life Limit,							25	0.1														
ECP-6280 MLG Wheel Well Drainage, ECP-6280 MLG Wheel Well Drainage,							36	0.1	36	0.1												
ECP-6284 TEF SHROUD LINK,ECP-6284 TEF SHROUD LINK,							36	0.1	14	*												
ECP-6285 FT77 Lower Wing Skin Splice Fitting Life Limit,							36	0.4	24	0.2												
ECP-6286 Low Speed Loss of Normal Brakes with Anti-Skid On,																						
ECP-6292 FT76 Avionics Bay 3 & 4 Door Hinges,							36	0.2	36	0.2												
ECP-6293 FT50 18K Access Panel Edge Stiffener Redesign,																						
ECP-6294 FT77 Trailing Edge Flap Actuator Rib Life Limit,																						
ECP-6295 FT77 Wing Spar 6 Life LimitECP-6295 FT77 Wing Spar 6 Life Limit																						
ECP-6211 / Inadequate Clearance Between APU SCV and Structure					36	*																
ECP-XXX41EA-18G Correction of Operational Test Discrepancies																						
Installation Kits N/R		6.0		3.0		1.8		1.9		3.1												
Installation Equipment			252	0.1																		
Installation Equipment N/R																						
Engineering Change Orders																						
Data		0.8		0.6		0.2		0.2		*												
Training Equipment																						
Support Equipment		0.6																				
ILS		7.8		3.4		4.1		4.7		4.9												
Other Support																						
Interim Contractor Support																						
Installation Cost	229	8.1	424	4.1	443	4.4	1,060	9.9	1,241	11.5												
TOTAL PROCUREMENT		75.8		14.7		16.8		25.7		27.8												

Exhibit P-3a **INDIVIDUAL MODIFICATION**

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

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

DESCRIPTION/JUSTIFICATION:

This OSIP is required to upgrade retrofits and improvements to various pieces of avionics equipment that have been or are being incorporated into production aircraft and to provide Mission Planning updates. Specifically for Mission Planning , the F/A-18 Unique Planning Component (UPC) for the Joint Mission Planning Systems (JMPS) must implement frequent software changes in conjunction with production aircraft modifications. The JMPS UPC changes required in conjunction with software 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) and Upgraded Solid State Recorder (USSR) into F/A-18E/F aircraft. SSR's do not provide 8X10 display recording which is captured with this upgrade. 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 DFIRS box will be modified to work with a new satellite Beacon frequency.

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.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
"A" Kits E/F Solid State Recorder	48	1.3	64	2.6			17	0.7	16	0.7												
INSTALLATION KITS N/R																						
Solid State Recorder		1.4								0.7												
DIFRS		1.1																				
INSTALLATION EQUIP.																						
MP/UPC		19.8		1.1		3.8		1.3		0.7												
"B" Kits E/F Solid State Recorder	48	1.3	64	2.6			17	0.7	16	0.7												
INSTALLATION EQUIP. N/R																						
ENGINEERING CHANGE ORDERS																						
DATA		0.7																				
TRAINING EQUIPMENT																						
SUPPORT EQUIPMENT		0.8																				
ILS				2.3				*		*												
OTHER SUPPORT																						
INTERIM CONTRACT SUPPORT																						
Installation Cost	24	0.2	24	0.2																		
TOTAL PROCUREMENT		26.5		8.8		3.8		2.7		2.8												

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
4. Beginning with FY06 procurement of SSR's installation will be performed at the "O" Level.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **F/A-18A-F** MODIFICATION TITLE: **CORE AVIONICS IMPROVEMENTS / UPGRADES (OSIP 23-04)**

INSTALLATION INFORMATION:

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

ADMINISTRATIVE LEADTIME: **3 Months** PRODUCTION LEADTIME: **8 Months**

CONTRACT DATES: FY 2006: _____ FY 2007: _____ FY 2008: _____ FY 2009: _____

DELIVERY DATE: FY 2006: _____ FY 2007: _____ FY 2008: _____ FY 2009: _____

($ in Millions)

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY (48) kits	24	0.2	24	0.2																		
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
TOTAL	24	0.2	24	0.2																		

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	24	0	0	12	12	0	0	0	0	0	0	0	0	0	0	0	0
Out	24	0	0	12	12	0	0	0	0	0	0	0	0	0	0	0	0

	FY 2010				FY 2011				FY 2012				FY 2013				To Complete	TOTAL
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In																		
Out																		

Note" Installation of Solid State Recorders procured in FY06 and later will be installed at the "O" Level

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **Litening AT Targeting Pod (OSIP 024-04)**

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

DESCRIPTION/JUSTIFICATION:

The LITENING AT Pod (AN-AAQ-28) possesses qualities essential to the Marine Corps' F/A-18A+/D's in the execution of operations within the combat spectrum providing the Marine Air Ground Task Force with crucial capabilities in the expeditionary land based environment. Litening AT Pod capabilities include: Laser /Infrared (IR) marker functionality, image data link functionality, cooperative Laser guided illumination, Laser Spot Tracker (LST), and limited weapons damage assessment capability. Northrop Grumman's Litening pod has demonstrated improved reliability and maintainability during combat operation.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Congressional New Start Notification letters dated 24 July 2003 identified the need for limited integration of the LITENING Enhanced Range Forward Looking Infra Red on the F/A-18D. This interim enhanced capability provided USMC Air Ground Task Forces greate precision close-in-air support capability and overall mission flexibility in the execution of theater operations in the combat environment. For F/A-18A+, another set of Congressional New Start Notification letters was submitted 29 October 2004 for integration of the Litening Forward Looking Infrared pods on land-based F/A-18A-Cs to increase their effectiveness in the Global War on Terrorism. FY05 Congressional Add of $3.0M was added. $2.8M of FY06 F/A-18 ATARS funding was realigned for LITENING Station four integration on F/A-18A+/Ds. FY-06 Congressional Add of $30.5M was added to fully fund the acquisition, integration, installation, and logistics for the the remainder of the Litening pod AT requirement.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
A-Kit (D's)	50	0.7																				
A-Kit (A+'s)	14	0.3																				
Avionics																						
Installation Kits N/R		0.9																				
Installation Equipment(C/D)	24	41.1	19	26.7		0.5																
Installation Equipment(E/F)																						
Installation Equipment N/R	24	0.5		0.2		1.8																
Engineering Change Orders				3.0		0.5																
Data		0.4																				
Training																						
Support Equipment						*																
ILS		0.4		1.2																		
Spares																						
Other Support - Testing		0.7		3.6		0.4																
Installation Cost	62	0.7	26	*																		
Total Procurement		45.6		34.7		3.3																

Notes:
1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. Procurement contract of A-Kits includes the associated installation cost.
4. 24 Installs in FY06 funded with FY05 funds.
5. 15 Installs in FY06 funded with FY06 Congressional Add

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **RESERVE SQUADRON ECP 560 OSIP 08-05**

MODELS OF SYSTEM AFFECTED: **F/A-18A** TYPE MODIFICATION: **AVIONICS UPGRADE**

DESCRIPTION/JUSTIFICATION:

Upgrade Avionics for F/A-18A Hornets (Lots 8 and 9) for the U.S. Naval Reserve Force. The Avionics Upgrade includes new avionics subsystems already incorporated or in process of being incorporated into USN/USMC and/or FMS F/A-18 aircraft. This ECP incorporates the following systems: AN/ARC-210(V) with HAVEQUICK II and SINCGARS; Digital Communications System (DCS) Receiver Transmitter (RT-1824(C)); Mission Computer CP 2360 (XN-8); Stores Management Set (SMS) (AN/AYQ-9); AMRAAM Capability (radar mod, launchers, weapons pylons and control stick); Digital Display Indicator (DDI) Upgrade: Mission Data Loader (AN/ASQ-215): Targeting FLIR provisions (AAS-38B).

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

ECP 560 was approved in March 1998. All the equipment being incorporated in this ECP has completed development.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
ECP 560	4	1.6																				
Installation Kits N/R				5.3																		
Installation Equipment	70	5.8																				
Installation Equipment N/R																						
Engineering Change Orders																						
Data																						
Training																						
Other Support (Testing)																						
Support Equipment																						
ILS		0.5		0.8		0.4		0.3		0.3												
Interim Contractor Support																						
Installation Cost			7	1.8																		
TOTAL PROCUREMENT		7.9		7.9		0.4		0.3		0.3												

Notes:

1. Totals may not add due to rounding
2. In FY05 three units were procured with NGRE funds and will be installed with APN-5 funds.
3. Thirty-One (31) Kits were procured in prior year with NGRE funds

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **F/A-18A** MODIFICATION TITLE: **RESERVE SQUADRON ECP 560 OSIP 08-05**

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **ONE KIT INSTALLED BY CONTRACTOR FOR VAL/VER, OTHER INSTALLS FIELD TEAMS**

ADMINISTRATIVE LEAD-TIME: **2 Months** PRODUCTION LEAD-TIME: **2 Months**

CONTRACT DATES: FY 2006: FY 2007: FY 2008: FY 2009:

DELIVERY DATE: FY 2006: FY 2007: FY 2008: FY 2009:

($ in Millions)

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY(4) kits *			4	1.0																		
FY 2006 (3) kits			3	.8																		
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 (0) kits																						
TOTAL			7	1.8																		

* USMC Reserve funded 34 "A" Kits
Quantities Reflect ECP 583 and ECP 583R2
Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	0	0	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0				
Out	0	0	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0				

	FY 2011				FY 2012				FY 2013				To Complete		TOTAL
	1	2	3	4	1	2	3	4	1	2	3	4			
In															
Out															

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **Link 4A Replacement (OSIP 009-06)**

MODELS OF SYSTEM AFFECTED: **F/A-18A E/F/G** TYPE MODIFICATION: **AVIONICS UPGRADE**

DESCRIPTION/JUSTIFICATION:

The RT-1379A Link-4A system provides Aircraft Carrier Landing (ACL), Vectoring, and Shipboard INS (SINS) alignment capability. The basis for the RT-1379A is the RT-1250A/ARC-182 Radio which is re-furnished GFE from Rockwell Collins (RC) for a re-use program. RC re-uses 4 cards from the ARC-182 (A2, A4, A5, and A6) and builds 3 new cards (A1, A3, and A7). Boeing then purchases the re-manufactured RT-1379A from RC for the cost of the new cards, refurnishment, and unit testing, before providing it to the Navy as CFE. The RT-1379A is located in the starboard right-hand LEX position. Rockwell-Collins plans to discontinue support of the ARC-182 product line including the RT-1379A starting on 30 September 2007. The reasons for discontinuance include: an inability to procure electrical components to accomplish receiver-transmitter maintenance repairs and remanufacture; low product volume; aging test equipment; and diminishing technical expertise (late 1970s design technology). Cross Decking of existing RT-1379A radios, upgrading and remanufacturing high failure rate SRAs, and replacing the depot repair capability for the RT-1379A is also required to support fleet requirements through FY22.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

The F/A-18 RT-1379A Replacement Program was initiated by a formal PMA-265 Diminishing Manufacturing Sources Review Board (DMSRB) decision on 12 December 2003, which approved the selection of the RT-1824(C) Digital Communications System (DCS) Radio as the replacement candidate for this effort. The replacement program is scheduled to be introduced with Lot 31 E/F/G aircraft, and is dependent on the H4E and H5E System Configuration Set (SCS) Block Operational Flight Program schedule, and is anticipated to have a Fall 2007 Fleet release. A 4-5 year retrofit program will commence one year later. Issue 22136 reduced funding for ACLS which consists of both the Link-4a and the APN 202. The goal of issue 22136 was to replace retrofit of the Link-4a solution with an alternate plan of obsolescence management such as refurbishing older units vice new purchases. The new strategy is to retrofit the aircraft with APN 245 which is an updated version of the APN 202.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
APN 202																						
RT-1379A																						
RT-1379A "A" Kits																						
Installation Kits N/R																						
Installation Equipment																						
APN 245			40	3.8	42	4.7	50	3.7	53	4.2												
Installation Equipment N/R																						
Engineering Change Orders																						
Data																						
Training																						
Other Support (Testing)																						
Support Equipment																						
ILS																						
Interim Contractor Support																						
Installation Cost																						
TOTAL PROCUREMENT				3.8		4.7		3.7		4.2												

Notes:
1. Totals may not add due to rounding
2. Installs will be done at the Fleet

Exhibit P-3a **INDIVIDUAL MODIFICATION**

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

MODELS OF SYSTEM 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 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 capability, survivability and reliability. This OSIP also includes ECP 6279 which incorporates Osprey Holstein requirements and funds to support ECP 508 which converts some AN/APG-65 radars to AN/APG-73 and non-recurring for reliability and operational safety improvements into the AN/APG-65 and AN/APG-73 Radars. Recurring cost is within the ECO cost element.

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 135 Lot 26-29 F/A-18E/F aircraft previously outfitted with AN/APG-73. The procurement of kits will commence in FY08 with the first installation occurring in FY10. 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 of 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 / obsolesce into the AN/APG-65 and AN/APG-73-RADAR's.

FINANCIAL PLAN (TOA, $ in Millions):

	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
A KIT 1 - Radar Set							19	60.6	22	68.4												
A KIT 2 - Radome							19	2.7	22	3.1												
A Kit 3 - Modules (ECP 6279)							12	0.9	30	2.3												
Installation Kits N/R						5.4		1.2		0.8												
Installation Equipment																						
B Kit -1																						
Main Electrical Panel							19	0.4	22	0.3												
Electrical Connections							19	0.3	22	0.2												
Liquid Cooling system Quick Disconnects							19	0.2	22	0.1												
ECS Fixed Duct							19	0.2	22	0.1												
Fiber Channel Network Switches (FCNS)																						
B Kit -2																						
Main Electrical Panel																						
Electrical Connections																						
Liquid Cooling system Quick Disconnects																						
ECS Fixed Duct																						
Installation Equipment N/R																						
Engineering Change Orders						0.9		2.7		2.2												
Data								2.0		0.7												
Training																						
Support Equipment								1.2		1.2												
ILS								0.7		10.0												
Other Support								0.7		0.7												
Interim Contractor Support																						
Installation Cost																						
TOTAL PROCUREMENT						6.3		73.8		90.2												

Notes:
1. Totals may not add due to rounding
2. "Installation Kit" quantity includes both Radar Sets and Radome A Kits.
3. "A" Kit 3 Modues are an "O" Level Install

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **F/A-18A E/F** MODIFICATION TITLE: **AESA (OSIP 002-07)**

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **ONE KIT INSTALLED BY CONTRACTOR FOR VAL/VER, OTHER INSTALLS FIELD TEAMS**

ADMINISTRATIVE LEAD-TIME: **3 Months** PRODUCTION LEAD-TIME: **21 Months**

CONTRACT DATES: FY 2006: _____ FY 2007: _____ FY 2008: Jan-08 FY 2009: Jan-09

DELIVERY DATE: FY 2006: _____ FY 2007: _____ FY 2008: Sep-09 FY 2009: Sep-10

($ in Millions)

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY (0) kits *																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 (38) kits																						
FY 2009 (44) kits																						
TOTAL																						

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	FY 2010				FY 2011				FY 2012				FY 2013				To Complete	TOTAL
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In																		
Out																		

Note: "Installation Kit" quantity includes both Radar Sets and Radome A Kits.

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2007	
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy / APN5 Aircraft Modifications**							P-1 ITEM NOMENCLATURE **052600, H-46 SERIES**					
Program Element for Code B Items:							Other Related Program Elements					
	PRIOR YEARS	ID Code	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
QUANTITY												
COST (In Millions)	724.8	A	67.3	65.7	22.1	35.0	36.6	37.0	41.7	0.0		1030.2

DESCRIPTION: 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 ACCOMODATING 25 TROOPS AND CREW MEMBERS. THE CABIN ALSO CONTAINS AN INTEGRAL CARGO AND RESCUE SYSTEM. THE OVERALL GOAL OF THE MODIFICATION BUDGET IN FY2008 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: (220) CH-46E + (3) HH-46D. (24) OF THE (220) CH-46E'S ARE RESERVE 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.

*$18.468M received in FY 2007 Title IX.

OSIP No. / DESCRIPTION	PRIOR YEARS	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
025-97 SAFETY IMPROVEMENT	36.9	10.3	1.6	0.5							49.4
028-99 ENGINE CONTROL SYSTEM	48.9	0.1	3.9								52.9
029-99 ELECTRICAL SYSTEMS UPGRADE	7.3	0.3	0.4								8.0
015-01 ERIP	199.5	38.9	38.6	4.1							281.1
010-03 AIRCRAFT INTEGRATED MAINTENANCE SYSTEM	15.8	10.8	3.8								30.5
011-05 LIGHTWEIGHT COCKPIT SEATS	1.8	6.8	5.6	1.7							15.9
018-07 CH-46 SUSTAINMENT			11.9	15.9	35.0	36.6	37.0	41.7			178.0
TOTAL	310.3	67.3	65.7	22.1	35.0	36.6	37.0	41.7			615.7
H-46 SERIES RESERVES (INCLUDED ABOVE)		0.2									

Exhibit P-3a

MODIFICATION TITLE: SAFETY IMPROVEMENT (OSIP 025-97)

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

DESCRIPTION / JUSTIFICATION: The Safety Improvement Program was directed by Chief of Naval Operations (CNO) letter 7100 serial N880F/7U660758 dated 10 Jan 97, and approved as an Abbreviated Acquisition Program (AAP) by the Program Executive Officer (PEO) on 24 Oct 97. This program contains the following Engineering Change Proposals (ECP):
1. HYDRAULIC SYSTEM UPGRADE and UTILITY HYDRAULIC SYSTEM REDESIGN: This ECP was completed in FY2000, but the fleet has experienced ongoing problems with the hydraulic system following installation of the modification. The Utility Hydraulic System Redesign will assess the overall configuration of the hydraulic system and correct deficiencies to improve system performance. This modification will be installed in 177 CH-46E aircraft (153 active + 24 reserve).
2. LOWER DUAL BOOST ACTUATOR (LDBA) and APU deck: The housing for the actuator is highly susceptible to stress corrosion cracking (same issues with APU deck). The material wear and housing cracks have resulted in LDBA malfunction. The pilot cannot control the drive direction of the helicopter, a potentially life threatening situation. This program will procure a redesigned actuator housing that eliminates the failure mode in the LDBA. This modification will be installed concurrent with Fleet Exchange (FE) repairs. This modification will be installed in 177 CH-46E aircraft (153 active + 24 reserve).
3. NIGHT VISION GOGGLE (NVG) COMPATIBLE COCKPIT and NVG COMPATIBLE COCKPIT DOME LIGHT: This ECP is complete.
4. RUNNING ENGINE WASH: This ECP is complete.
5. SLIDING RESCUE HATCH (HELL HOLE DOOR): This ECP is complete.
6. ALQ-157 INFRARED COUNTERMEASURES (IRCM): This ECP is complete.
7. AN/ALE-47 COUNTERMEASURES DISPENSING SYSTEM (CMDS): This ECP is an Aircraft Survivability Equipment (ASE) modification to improve aircraft operation/maintainability/survivability in combat operations. This safety improvement upgrades the AN/ALE-39 (CMDS). It improves the reliability, reduces fleet operational cost and enhances the ASE capabilities of the CH-46E aircraft operating in hostile environments by addressing the problems of "Things Falling Off Aircraft" (TFOA) and uncommanded dispensing of countermeasures. This improvement will be installed in 214 CH-46E aircraft in support of OIF II.
8. AN/AAR-47(V)2 MISSILE WARNING SET INSTALLATION: This ECP is an Aircraft Survivability Equipment (ASE) modification to improve aircraft operation/maintainability/survivability in combat operations. The current system has a high false alarm rate resulting in premature flare launch. The modification will improve reliability in missile protection by reducing the false alarm rate, which in turn will conserve flares. This improvement will be installed in 214 CH-46E aircraft in support of OIF II.
9. HH-46E SEARCH AND RESCUE (SAR) CONVERSION: All Navy H-46Ds have been retired leaving the Marine Corp as the sole operator of the H-46D Type-Model-Series (TMS). The high flight hours on the HH-46Ds airframes, poor engine reliability and obsolescence issues make this aircraft difficult and expensive to operate and maintain. This ECP will convert 3 CH-46E helicopters to the HH-46E configuration to perform the SAR mission, and will permit retirement of the H-46D TMS.
10. CH-46E FBCB2 (FORCE BATTLE COMMAND BRIGADE& BELOW) BLUE FORCE TRACKER - The US Army AVIATION FORCE XXI BATTLE COMMAND BRIGADE & BELOW (FBCB2)/BLUE FORCE TRACKING (BFT) SYSTEM is the common BFT system being installed in CH-53E and CH-46E helicopters. This program provides for an integrated installation by developing a more appropriate mounting location, improving the cable routing for the cockpit displays and by allowing for the use of the on board GPS. This integration will allow the cockpit crew more control of the system, improve the safety aspect by removing loose cables from BFT mission kit to cockpit EDMs, reduce operational weight, improve readiness/availability of the BFT, and increase available space for payload by removing the BFT mission pallet from the cargo area of the aircraft. The BFT will be installed in 154 aircraft.
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:
1. UTILITY HYDRAULIC SYSTEM REDESIGN: The nonrecurring engineering is complete, and production installations are ongoing.
2. LOWER DUAL BOOST ACTUATOR: The LDBA manifold has been redesigned & qualified, and manifolds are in production.
3. NVG COMPATIBLE COCKPIT DOME LIGHT: This upgrade is complete.
4. T58-16/402 RUNNING ENGINE WASH: This upgrade is complete.
5. SLIDING RESCUE HATCH (HELL HOLE DOOR): This upgrade is complete.
6. ALQ-157 INFRARED COUNTERMEASURES (IRCM): This upgrade is complete.
7. AN/ALE-47 COUNTERMEASURES DISPENSING SYSTEM (CMDS): This ECP was approved 26 Feb 2004. Depot installs are ongoing.
8. AN/AAR-47(V)2 MISSILE WARNING SET INSTALLATION: This ECP was approved 26 Feb 2004. Depot installs are ongoing.
9. HH-46E SEARCH AND RESCUE (SAR) CONVERSION: NRE for SAR conversion is in work. The first aircraft for SAR conversion is scheduled for induction 4th quarter FY06 with planned delivery 2nd quarter FY07.
10. CH-46E FBCB2 (FORCE BATTLE COMMAND BRIGADE& BELOW) BLUE FORCE TRACKER - The FY06 GWOT funding purchased a non integrated "A" kit installation in 154 aircraft and 61 "P" kits (mission kits) .

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
A KITS BLUE FORCE TRACKER			154	2.3																		
AAR-47 (V)2 KITS	214	0.2																				
AAR-47 LOOSE WIRE GRP CABLES (SOFSA)	220	*																				
ALE-47 CABLES (NADEP)	36	*																				
ALE-47 KITS	214	0.9																				
ALQ-157 KITS	196	9.3																				
HH-46E SEARCH AND RESCURE (SAR)			3	0.2																		
HYDRAULIC SYSTEM UPGRADE (D-MODEL)	81	1.1																				
HYDRAULIC SYSTEM UPGRADE (E-MODEL)	229	3.3																				
LOWER DUAL BOOST ACTUATOR (E-MODEL)	97	0.7	80	0.6																		
NVG COMPATIBLE COCKPIT (D-MODEL)	81	3.0																				
REW D-AIRFRAME (T58-402) AFC-477	65	0.1																				
REW D-ENGINE (T58-402) PPC-165	81	0.1																				
REW E-AIRFRAME (T58-16) AFC-492	200	0.5																				
REW E-ENGINE (T58-16) PPC-165	687	0.8																				
SLIDING RESCUE HATCH (D/E-MODEL)	66	0.8																				
TACTICAL OPERATING CENTER KITS			20	0.4																		
UTIL. HYDR SYST. AFC-522	97	0.2	80	0.2																		
UTIL. HYDR SYST. RED AFC-521 (E)	97	0.7	80	0.6																		
INSTALLATION KITS N/R		1.8		0.5																		
INSTALL EQUIPMENT																						
MISSION KITS BLUE FORCE TRACKER			61	1.8																		
INSTALL EQUIPMENT N/R																						
ECO																						
MOD/ALQ-157	196	0.5																				
NRE/NAVICP/ALQ-157		0.8																				
DATA		0.4				0.2																
TRAINING EQUIP	9	0.1	4	0.1																		
SUPPORT EQUIP		*																				
ILS		1.0		0.1																		
OTHER SUPPORT		3.9		1.3		0.6		0.4														
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	955	6.7	281	2.5	155	0.7	29	*														
TOTAL PROCUREMENT	3,821	36.9	763	10.3	155	1.6	29	0.5														

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

Totals may not add due to rounding

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: H-46 SERIES

MODIFICATION TITLE: SAFETY IMPR PGM (AFC-521 UTILITY HYDRAULIC SYSTEM) (025-97)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: CONTRACTOR FMT AND CONCURRENT WITH DEPOT LEVEL MAINTENANCE

ADMINISTRATIVE LEADTIME: 5 Months

PRODUCTION LEADTIME: 5 Months

CONTRACT DATES: FY2006 Mar 06 FY2007 FY2008 FY2009

DELIVERY DATE: FY2006 Aug 06 FY2007 FY2008 FY2009

($ in Millions)

Cost:	PRIOR YEARS		FY2006		FY2007		FY2008		FY2009		FY2010		FY2011		FY2012		FY2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (98) kits*	48	0.3	50	0.3																		
FY 2006 (81) kits*			20	0.1	61	0.3																
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
FY 2012 () kits																						
FY 2013 () kits																						
TO COMPLETE																						
Total	48	0.3	70	0.4	61	0.3																

* Includes aircraft plus one trainer each year

Installation Schedule

	PRIOR YEARS	FY2006				FY2007				FY2008				FY2009				FY2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	48	17	17	17	18	15	15	15	15												
Out	31	17	17	17	17	18	15	15	15	15											

	FY2011				FY2012				FY2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: H-46 SERIES MODIFICATION TITLE: AFC-522 UTILITY HYDRAULIC SYSTEM (025-97)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: CONTRACTOR FMT AND CONCURRENT WITH DEPOT LEVEL MAINTENANCE

ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 9 Months

CONTRACT DATES: FY2006 Dec 05 FY2007 FY2008 FY2009

DELIVERY DATE: FY2006 Aug 06 FY2007 FY2008 FY2009

($ in Millions)

Cost:	PRIOR YEARS		FY2006		FY2007		FY2008		FY2009		FY2010		FY2011		FY2012		FY2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (98) kits*			56	0.1	41	0.1																
FY 2006 (81) kits*					51	0.1	29	*														
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
FY 2012 () kits																						
FY 2013 () kits																						
TO COMPLETE																						
Total	0	0.0	56	0.1	92	0.1	29	*														

*Includes aircraft plus one trainer each year

Installation Schedule

	PRIOR YEARS	FY2006				FY2007				FY2008				FY2009				FY2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In				28	28	23	23	23	23	15	14										
Out					28	28	23	23	23	23	15	14									

	FY2011				FY2012				FY2013					
	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Total
In														
Out														

Totals may not add due to rounding

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: H-46 SERIES MODIFICATION TITLE: SAFETY IMPROVEMENT PROGRAM (SAR CONVERSION) (025-97)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: CONCURRENT WITH DEPOT LEVEL MAINTENANCE

ADMINISTRATIVE LEADTIME: 5 Months PRODUCTION LEADTIME: 5 Months

CONTRACT DATES: FY2006 Mar 06 FY2007 FY2008 FY2009

DELIVERY DATE: FY2006 Aug 06 FY2007 FY2008 FY2009

($ in Millions)

Cost:	PRIOR YEARS		FY2006		FY2007		FY2008		FY2009		FY2010		FY2011		FY2012		FY2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS () kits																						
FY 2006 (3) kits			1	0.1	2	0.3																
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
FY 2012 () kits																						
FY 2013 () kits																						
TO COMPLETE																						
Total			1	0.1	2	0.3																

Installation Schedule

	PRIOR YEARS	FY2006				FY2007				FY2008				FY2009				FY2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In					1		1		1												
Out							1		1		1										

	FY2011				FY2012				FY2013					
	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Total
In														
Out														

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: H-46 SERIES MODIFICATION TITLE: SAFETY IMPROVEMENT PROGRAM(BLUE FORCE TRACKER) (025-97)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: CONTRACTOR FMT

ADMINISTRATIVE LEADTIME: 4 Months PRODUCTION LEADTIME: 3 Months

CONTRACT DATES: FY2006 Oct 06 FY2007 FY2008 FY2009

DELIVERY DATE: FY2006 Jan 07 FY2007 FY2008 FY2009

($ in Millions)

Cost:	PRIOR YEARS		FY2006		FY2007		FY2008		FY2009		FY2010		FY2011		FY2012		FY2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS () kits																						
FY 2006 (154) kits					111	111.0	43	43.0														
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
FY 2012 () kits																						
FY 2013 () kits																						
TO COMPLETE																						
Total					111	111.0	43	43.0														

Installation Schedule

	PRIOR YEARS	FY2006				FY2007				FY2008				FY2009				FY2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In							25	43	43	43											
Out								25	43	43	43										

	FY2011				FY2012				FY2013					
	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Total
In														
Out														

Totals may not add due to rounding

Exhibit P-3a

MODIFICATION TITLE: ENGINE CONTROL SYSTEM (OSIP 028-99)

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

DESCRIPTION / JUSTIFICATION: The current H-46 Engine Condition Control System (ECCS) has several failure modes, which cause engines to shut down in flight; this presents a significant safety hazard to the fleet. Three bulletins have been issued by NAVAIR to inspect for system deficiencies. A formal system safety analysis utilizing historical failure data defines this as a Category One hazard and predicts six to seven failures per year. In the three and a half years before this upgrade was initiated there were 35 hazard reports (HAZREPs) issued documenting this failure mode, and it is estimated that 20 more occurred which were not reported through the HAZREP system. The aircraft has a limited single engine-operating envelope and is vulnerable to engine failure while flying and hovering over water. There have been five aircraft lost at sea in which pilots reported engine failure as the cause of the mishap. The aircraft were not recovered, and therefore, the specific engine failure mode could not be determined, but it is likely that ECCS caused some of the engine failures and ultimately led to the loss of aircraft. The propose solution to this safety problem is to convert to an alternative Engine Control System (ECS)
utilized by the commercial variant of the H-46. The proposed ECS will eliminate the safety failure modes, has a proven track record, needs only slight modification for military use, increases reliability, and will increase aircraft capability through increased engine responsiveness. Implementation will require configuration changes to the airframe and the engine. This is an urgent safety issue that must be resolved to eliminate future loss of crew and aircraft. This modification was installed on 65 H-46D aircraft (all active) and 226 CH-46E aircraft (202 active + 24 reserve).

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: The contract for Proof of Concept, validation and verification (val/ver) kits for this Non-Development Item (NDI) was awarded May 1999, and the Engineering Change Proposal (ECP) was approved Jun 2000. Validation installation for D-model was completed 2nd quarter FY2001, followed immediately by Electromagnetic Interface (EMI) testing and Verification installation in 3rd quarter FY2001. Production installations in Navy D-models are complete. The CH-46E validation/verification/testing testing is complete, Final E-model installations are in process.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
A KIT ENGINE OverSPEED SUPP					77	0.3																
B KIT ENGINE OverSPEED SUPP					77	2.5																
A KIT D-AIRCRAFT	63	0.4																				
A KIT E-AIRCRAFT	225	3.2																				
B-KITS FOR D&E-ACFT	240	14.2																				
B-KITS FOR RILOP	64	*																				
FUEL LINE ASSY KIT (D-AIRCRAFT)	63	0.1																				
FUEL PRIMING SYS H/W (D-ACFT)	1	0.1																				
OVERSPEED KITS (D&E AIRCRAFT)	434	1.7																				
QEC-3 KIT (D-AIRCRAFT)	130	0.5																				
QEC-4 KIT (E-AIRCRAFT)	452	0.9																				
INSTALLATION KITS N/R	3	4.8				0.4																
INSTALL EQUIPMENT																						
CONTROL BOXES	79	0.3																				
INSTALL EQUIPMENT N/R																						
ECO																						
ELECTRICAL ENGINE OVERSPEED NRE		0.7																				
ELECTRICAL ENGINE OVERSPPED NRE		0.1																				
ENGINE CONDITION ACTUATOR		0.2																				
IGNITER CIRCUIT		0.4																				
DATA		1.1				0.1																
TRAINING EQUIP	8	0.5																				
SUPPORT EQUIP		0.5																				
ILS		1.4																				
OTHER SUPPORT		5.5		0.1		0.1																
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	1,832	12.3			17	0.5	48		12													
TOTAL PROCUREMENT	3,594	48.9		0.1	171	3.9	48		12													

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

Totals may not add due to rounding

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: H-46 SERIES

MODIFICATION TITLE: ENGINE CONTROL SYSTEM OVERSPEED EFFORT (OSIP 028-99)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Depot Level FMT

ADMINISTRATIVE LEADTIME: 1 Months

PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2006 ____ FY 2007 Jan 07 FY 2008 ____ FY 2009 ____

DELIVERY DATE: FY 2006 ____ FY 2007 Jul 07 FY 2008 ____ FY 2009 ____

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS () kits																						
FY 2006 () kits																						
FY 2007 (77) kits					17	0.5	48		12													
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
FY 2012 () kits																						
FY 2013 () kits																						
TO COMPLETE																						
Total					17	0.5	48		12													

	Prior Years	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In								7	10	12	12	12	12	12							
Out									7	10	12	12	12	12	12						

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Totals may not add due to rounding

Exhibit P-3a

MODIFICATION TITLE: ELECTRICAL SYSTEMS UPGRADE (OSIP 029-99)

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

DESCRIPTION / JUSTIFICATION: This program contains the following Engineering Change Proposals:
1. GENERATOR CONTROL UNIT: The power generation system was the cause of ten hazard reports (HAZREP) in the three years before this upgrade was initiated. The causal factor has been traced back to the generators and the voltage control system. Two incidents resulted in dual generator failure, and seven incidents resulted in aircraft smoking / fires. (One of those fires was caused by flammable fluid ingestion into the generator that turned a hydraulic leak into a massive fire that consumed the entire aircraft in a Class A mishap.) A formal system safety analysis utilizing historical failure data defines this hazard as a potential Category One hazard and predicts two to three failures per year. This is an urgent safety problem that must be alleviated to eliminate loss of life and aircraft. The proposed solution is to modify the power generation system to eliminate the safety problem, provide cleaner power to sensitive avionics components, and improve performance of the generator to meet the power demand for future electrical installation in the aircraft. This modification will be installed in 226 aircraft (202 active + 24 reserve).
2. PERMANENT MAGNETIC GENERATOR (PMG) WIRING: RCM analysis of generator failure modes, and risk hazard analysis indicates that risk can be mitigated with a combination of replacing PMG and main generator power wiring, and inspecting to ensure proper clearances between lines and electrical power wire. Validation / Verification is complete and production installations are ongoing. This mod will be installed on 188 aircraft (164 active + 24 reserve).

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:
1.GENERATOR CONTROL UNIT: This upgrade is complete.
2. PERMANENT MAGNETIC GENERATOR (PMG) WIRING: Val/Ver installtions complete, and installation of wiring is ongoing.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
PMG WIRING KIT	58	0.1	60	0.1	70	0.1																
INSTALLATION KITS N/R		0.7																				
INSTALL EQUIPMENT																						
APU GCU (O-LEVEL)	226	0.6																				
MAIN GCU (O-LEVEL)	452	1.3																				
INSTALL EQUIPMENT N/R		0.8																				
ECO																						
DATA																						
TRAINING EQUIP	6	0.6																				
SUPPORT EQUIP																						
ILS		0.9																				
OTHER SUPPORT		2.3		0.1		0.1																
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	47	*	71	0.2	70	0.2																
TOTAL PROCUREMENT	789	7.3	131	0.3	140	0.4																

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

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: H-46 SERIES MODIFICATION TITLE: ELECTRICAL SYSTEMS UPGRADE (OSIP 029-99)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Depot Level FMT and Concurrent with Depot Maintenance

ADMINISTRATIVE LEADTIME: 8 Months PRODUCTION LEADTIME: 1 Months

CONTRACT DATES: FY 2006 Jan 06 FY 2007 Oct 06 FY 2008 FY 2009

DELIVERY DATE: FY 2006 Feb 06 FY 2007 Nov 06 FY 2008 FY 2009

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (58) kits	47	*	11	*																		
FY 2006 (60) kits			60	0.2																		
FY 2007 (70) kits					70	0.2																
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
FY 2012 () kits																						
FY 2013 () kits																						
TO COMPLETE																						
Total	47	*	71	0.2	70	0.2																

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	47	18	18	18	17	18	18	17	17												
Out		47	18	18	18	17	18	18	17	17											

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Totals may not add due to rounding

Exhibit P-3a

MODIFICATION TITLE: Engine Reliability Improvement Program (OSIP 015-01)

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

DESCRIPTION / JUSTIFICATION: T58-GE-16 reliability and performance trends were unacceptable prior to 2001 and were severely impacting Fleet safety, readiness and war fighting capability. Without corrective action, the T58-GE-16 Mean Time Between Repairs (MTBR) was projected to fall below 320 hours by FY2002 and would require 309 major repairs per year. The NAVAIR System Safety Team determined that the Hazard Risk Index (HRI) for the T58-GE-16 was "IIC" (critical, occasional) and trending towards "IIB" (critical, probable). The H-46 Helicopter must be logistically supported until at least 2015; however, T58-GE-16 support costs were being driven to unaffordable levels. This program will drastically improve Fleet operating safety and readiness, while providing tremendous reductions in maintenance man-hours and Operations & Support (O&S) costs. Funds support production and procurement of a T58-GE-16 engine core or "Gas Path", depot overhaul of key engine accessories, incorporation of all approved engine Component Improvement Program (CIP) changes, and depot final assembly of manufacturer delivered "Gas Path" with accessory components. This program is projected to restore a 900-hour(MTBR), restore performance to the original power specification, and reduce the major engine repairs to 165 in FY2006. This modification will be installed in 223 aircraft (199 active + 24 reserve).

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:Congress approved $3M plus-up in FY2001 for risk mitigation, prototypes, and non-recurring engineering; the contract for these efforts awarded in Jan 2001. The prototype engine gas path modules were delivered in Apr 2002, and the engine prototypes were completed in Jul 2002. A Low Rate Initial Production (LRIP) contract was awarded in Aug 2002, and gas path module deliveries started in Oct 2003 with the first ERIP configuration units fielded to the fleet in Mar 2003. Approval for Full Rate Production (FRP) was granted and the first production lot was ordered Mar 2003. Initial Operational Capability (IOC) was reached in Dec 2003 and installations are ongoing.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
ACCESSORY KITS (GE)	331	2.7	60	0.7	58	0.7																
GAS PATH MODULE KITS (GE)	328	155.2	60	27.6	58	26.0																
T-5 HARNESS KITS (GOCO)	20	*																				
INSTALLATION KITS N/R	3	7.4																				
INSTALL EQUIPMENT																						
INSTALL EQUIPMENT N/R																						
ECO																						
EROSION BLADE COATING GE SUPPORT		0.7																				
CUT-IN		1.3																				
KITS		3.9		5.0		8.1		0.9														
DATA		1.0		*		0.2																
TRAINING EQUIP		1.6		0.1																		
SUPPORT EQUIP		8.8		1.2																		
ILS		0.3		0.2		0.2		0.2														
OTHER SUPPORT		11.0		3.3		3.5		3.0														
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	67	5.6	11	0.6																		
TOTAL PROCUREMENT	749	199.5	131	38.9	116	38.6		4.1														

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

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: H-46 SERIES MODIFICATION TITLE: Engine Reliability Improvement Program (OSIP 015-01)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Modify engine & accessories concurrent w/ repairs at Depot

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2006 FY 2007 FY 2008 FY 2009

DELIVERY DATE: FY 2006 FY 2007 FY 2008 FY 2009

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (61) kits	61	3.9																				
FY 2006 (10) kits			10	0.2																		
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
FY 2012 () kits																						
FY 2013 () kits																						
TO COMPLETE																						
Total	61	3.9	10	0.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0		

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	61			5	5																
Out	59	2			5	5															

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Totals may not add due to rounding

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: H-46 SERIES MODIFICATION TITLE: T58 Test Cell Kit Installs (015-01)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor FMT

ADMINISTRATIVE LEADTIME: Months PRODUCTION LEADTIME: Months

CONTRACT DATES: FY 2006 FY 2007 FY 2008 FY 2009

DELIVERY DATE: FY 2006 FY 2007 FY 2008 FY 2009

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (7) kits	6	1.7	1	0.4																		
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
FY 2012 () kits																						
FY 2013 () kits																						
TO COMPLETE () kits																						
Total	6	1.7	1	0.4																		

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	6				1																
Out	3				1	1	1	1													

	FY 2011				FY 2012				FY 2013					
	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Total
In														
Out														

Totals may not add due to rounding

Exhibit P-3a

MODIFICATION TITLE: AIRCRAFT INTEGRATED MAINTENANCE SYSTEM (OSIP 010-03)

MODELS OF SYSTEMS AFFECTED: H-46 TYPE MODIFICATION: RELIABILITY & MAINTAINABILITY (HONA Category B)

DESCRIPTION / JUSTIFICATION: Aircraft Integrated Maintenance System (AIMS) is a Commercial Off The Shelf (COTS) vibration monitoring system to be permanently installed in the aircraft. AIMS is a comprehensive set of aircraft monitoring hardware and support hardware. It interfaces with the cockpit crew via the Control Data Navigation Unit (CDNU), which has extensive software upgrades. The purpose of the system is to build support equipment functions into the aircraft as a permanent installation. Thus, AIMS will eliminate most H-46 peculiar support equipment requirements. This equipment will provide aircrews immediate feedback on aircraft condition and engine performance, which enhances the ability to predict catastrophic failures and reduces maintenance costs. In 1997, PMA226 fielded new vibration equipment to a small sample of H-46 aircraft and implemented a 100-hour vibration monitoring check. Since implementation, vibration monitoring has been instrumental in predicting (and preventing) impending component failures. For example, vibration data was received from an aircraft that had undergone three aft transmission removals for input pinion seal leakage. Analysis of the vibration monitoring data revealed a major problem with the #2 engine. Further investigation of the engine revealed impending failure of the right angle drive bearings. Failure of the engine may have resulted in damage or loss of the aircraft. Another example is an aircraft that, while performing a 100-hour vibration check, experienced aft transmission vertical vibration levels that exceeded acceptable limits. Further investigation revealed impending failure of the electrical generator. Without vibration monitoring, the problem with the generator would have gone undetected until catastrophic failure. Failure of the generator may have resulted in an electrical fire and/or collateral damage to the aircraft. This modification will be installed in 154 aircraft (130 active + 24 reserve).

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Contracts to integrate the AIMS into the H-46 aircraft, design an installation kit, modify Control Data Navigation Unit (CDNU) software, and prepare technical data were awarded in Jun 2003. Prototype kits delivered in Feb 2004, the hardware Critical Design Review (CDR) was held in Jul 2004, and the software CDR was completed in Aug 2004. Validation/Verification completed May 2005 and Electro Magnetic Interference (EMI) testing in Jul 2004. The first production lot delivered in Jan 2005 and production installations are ongoing.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
PRODUCTION KITS (HONEYWELL)	83	4.3	67	3.5																		
PROTOTYPE A KITS SUPP(SOFSA)			2	*																		
SOFSA AIMS BASIC KITS	83	1.1	67	1.7																		
TIME DELAY RELAY KITS			67	*																		
INSTALLATION KITS N/R	4	3.9																				
INSTALL EQUIPMENT																						
INSTALL EQUIPMENT N/R																						
ECO																						
DATA		1.1		0.1		*																
TRAINING EQUIP	2	0.1																				
SUPPORT EQUIP		0.4				0.6																
ILS		0.1		0.1		0.1																
OTHER SUPPORT		2.8		2.5		0.7																
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	47	1.9	64	2.8	47	2.3																
TOTAL PROCUREMENT	219	15.8	267	10.8	47	3.8																

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

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: H-46 MODIFICATION TITLE: AIRCRAFT INTEGRATED MAINTENANCE SYSTEM (OSIP 010-03)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION:

ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2006 Dec 05 FY 2007 FY 2008 FY 2009

DELIVERY DATE: FY 2006 Jun 06 FY 2007 FY 2008 FY 2009

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (89) kits*	47	1.9	42	1.9																		
FY 2006 (69) kits**			22	0.9	47	2.3																
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
FY 2012 () kits																						
FY 2013 () kits																						
TO COMPLETE																						
Total	47	1.9	64	2.8	47	2.3																

* Includes 83 aircraft, 4 NRE articles, and 2 trainers

** Includes 2 supplemental funded prototype installs

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	47	15	15	16	16	12	12	14	11												
Out	32	15	15	15	16	16	12	12	14	11											

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Totals may not add due to rounding

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).

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. Additional National Guard and Reserve Equipment Account (NGREA) funding is buying seats for reserve aircraft. Nonrecurring engineering for aerial observer and crew chief seats is scheduled in FY2006/FY2007 to be followed by contract award for production articles in FY2007.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
AERIAL OBSERVER SEAT KIT (A) S			90	0.3	74	0.2																
CREW CHIEF SEAT KIT (A) S			90	0.3	74	0.2																
INSTALLATION KITS N/R		0.5		1.0																		
INSTALL EQUIPMENT																						
AERIAL OBS SEATS(B KIT) S			90	0.8	74	0.7																
CREW CHIEF EQUIP SEATS(B KIT) S			90	0.8	74	0.7																
SEATS EQUIP	19	1.0	49	2.8	52	2.9	20	1.2														
INSTALL EQUIPMENT N/R																						
ECO																						
INSTALLATION HARDWARE CHANGES		*		*																		
DATA		*		0.3				0.1														
TRAINING EQUIP	2	0.1					2	*														
SUPPORT EQUIP																						
ILS								0.1														
OTHER SUPPORT		0.1		0.2		0.6		0.3														
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST				0.3	90	0.3	54		20													
TOTAL PROCUREMENT	21	1.8	409	6.8	438	5.6	76	1.7	20													

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

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: 9 Months PRODUCTION LEADTIME: 3 Months

CONTRACT DATES: FY 2006 Apr 07 FY 2007 Aug 07 FY 2008 FY 2009

DELIVERY DATE: FY 2006 Jul 07 FY 2007 Nov 07 FY 2008 FY 2009

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS () kits																						
FY 2006 (90) kits				0.3	90																	
FY 2007 (74) kits						0.3	54		20													
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
FY 2012 () kits																						
FY 2013 () kits																						
TO COMPLETE																						
Total			0	0.3	90	0.3	54	0.0	20	0.0												

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In								45	45	14	14	14	12	20							
Out									45	45	14	14	14	12	20						

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Totals may not add due to rounding

Exhibit P-3a

MODIFICATION TITLE: CH-46 GERIATRIC AIRCRAFT SAFETY AND SUSTAINMENT PROGRAM (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 and to address the heavy wear-and-tear effects of high-tempo GWOT operations on H-46 airframes and subsystems in order to ensure safe, reliable and effective aircraft operation throughout the USMC Medium Lift transition period. In 2006, the average age of the H-46 helicopter is 39 years, and CH-46E squadrons deployed in support of GWOT have been flying in excess of 400% of planned utilization rate, creating a set of conditions that jeopardize the safety and reliability of the H-46 fleet. The H-46 Geriatric Aircraft Safety and Sustainment Program is driven by the H-46 Age Exploration Program, Systems Safety Working Group and other Fleet forums and provides redesign and modernization efforts in the following areas:
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 and other aircraft systems to resolve obsolescence, reliability or safety issues using common, previously qualified or COTS solutions. This initiative replaces components that are no longer supported in the supply system or are high maintenance degraders with modern, digital components maximizing commonality with other Naval aircraft to improve reliability, increase functionality and capabilities.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: NRE efforts are currently underway. Contracts for Integration testing, prototype kits and production options will be awarded in FY2008. Prototype kit validation and verification will be performed in FY2008 and production installs will commence in FY2009.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
KIT #1							3	2.1	20	13.3												
INSTALLATION KITS N/R						11.9		9.2		2.4												
INSTALL EQUIPMENT																						
INSTALL EQUIPMENT N/R																						
ECO																						
DATA										0.2												
TRAINING EQUIP									2	0.9												
SUPPORT EQUIP										0.6												
ILS										0.3												
OTHER SUPPORT								0.8		1.5												
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST							3	3.8	16	15.9												
TOTAL PROCUREMENT						11.9	6	15.9	38	35.0												

*Two trainer kits are being purchased in FY09. Of these two kits, one is for a maintenance trainer and requires depot level installation. The other is for an aircrew procedures trainer and does not require depot level installation.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: H-46 SERIES MODIFICATION TITLE: CH-46 GERIATRIC AIRCRAFT SAFETY AND SUSTAINMENT PROGRAM (OSIP 018-07)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor FMT and concurrent with Depot level Maintenance

ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 4 Months

CONTRACT DATES: FY 2006 FY 2007 FY 2008 Nov-07 FY 2009 Nov-08

DELIVERY DATE: FY 2006 FY 2007 FY 2008 Mar 08 FY 2009 Mar 09

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS () kits																						
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 (3) kits							3	3.8														
FY 2009 (21) kits									16	15.9												
FY 2010 (20) kits																						
FY 2011 (20) kits																						
FY 2012 (20) kits																						
FY 2013 () kits																						
TO COMPLETE																						
Total							3	3.8	16	15.9												

*Two trainer kits are being purchased in FY09. Of these two kits, one is for a maintenance trainer and requires depot level installation. The other is for an aircrew procedures trainer and does not require depot level installation.

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In												1	2		4	6	6				
Out													1	1	1	4	6	6			

	FY 2011				FY 2012				FY 2013					
	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Total
In														
Out														

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2007	
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy / APN5 Aircraft Modifications**							P-1 ITEM NOMENCLATURE **052700, AH-1W SERIES**					
Program Element for Code B Items:							Other Related Program Elements					
	PRIOR YEARS	ID Code	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
QUANTITY												
COST (In Millions)	401.0	A	36.6	25.7	7.4	6.5	2.1	2.1	2.2	2.2	24.7	510.3

DESCRIPTION: This line item funds modifications to the AH-1W aircraft. Modifications prior to FY 1997 were funded in the H-1 Series P-1 line item. There are 174 AH-1W's. The AH-1W is a tandem set, two place (pilot and gunner/co-pilot) attack helicopter designed and built to provide the high speed and manuverability required by the attack mission. The armament of the AH-1W includes the SIDEWINDER, TOW, and HELLFIRE missile systems, a chin-mounted 20mm turret gun, and wide variety of forward firing and gravity released external stores. Operational Requirements Documents (ORD) AAS-35 covers all OSIPs listed below. The overall goal of the modifications budgeted in FY2008 is to continue to fulfill the operational requirement to detect, identify and destroy tactical sized armored targets with precision guided munitions during the day, at night, and during adverse weather, as well as providing enhanced conventional weapons delivery by utlitizing the systems laser ranging and designating system. The specific modifications budgeted and programmed are:

OSIP No. / DESCRIPTION	PRIOR YEARS	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
008-90 AH-1 NIGHT TARGETING	331.6	3.8									335.3
016-98 AH-1 APR-39 A(V)2	39.9	22.4	13.2	1.2	0.4						77.1
013-00 AH-1W A/C & T700 ENG	19.1	5.5	10.9	0.2							35.7
002-03 AH-1 20MM LINKLESS FEED	4.9	4.9	1.6	6.0	6.1	2.1	2.1	2.2	2.2	24.7	56.7
TOTAL	395.5	36.6	25.7	7.4	6.5	2.1	2.1	2.2	2.2	24.7	504.8
RESERVE FUNDING INCLUDED IN THE TOTALS:	0.5										

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

Totals may not add due to rounding
DD Form 2454, Jun 86

Exhibit P-3a

MODIFICATION TITLE: AH-1 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 utlizing the systems laser ranging system. This modification has two key parts: (1) the modification of the cockpit and the canopy places a radar altimeter in the front cockpit for the first time; and (2) the NTS itself. The Night Vision Goggle Helmet mounted Display and Improved Crew Restraint System completes the NTS modification. NTS will accomplish the USMC requirements for night operations by incorporating a high resolution stabilized forward locking infra-red sensor, changed copuled device camera system, automatic target tracking, and laser range finder/designator into the current M65 telescopic sight unit. Due to changes in the TOW missile control by addition of the NTS, a Buffer Box is being incorporated to ensure proper operation of the TOW missile with the NTS. Additional NTS WRA modifications to improve reliability, maintainability, and systems stablization will also be incorporated.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: The AH-1W Fleet has been fully outfitted with the Night Targeting System. There is a requirement to upgrade the Night Targeting System on to the AH-1W flying until 2015. Upgrades will include, but not limited to, the first generation FLIR with a third generation FLIR, replacing the black and white TV with a color TV, improve boresight, and continue to look at reliability maintainability and stablization issues.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
A/F Kits	128	37.5																				
Accelerated Kits	5	2.0																				
NTS Kits	132	129.4																				
NTSU Kits	7	6.4	3	2.9																		
Tow Buffer Kits	202	1.8																				
INSTALLATION KITS N/R		23.7																				
INSTALL EQUIPMENT																						
ICRS GFE	41	1.8																				
Misc. GFE (Repair/Replace)	1	5.5																				
NTS GFE	79	1.5																				
VCRS	137	3.6																				
INSTALL EQUIPMENT N/R		2.2																				
ECO																						
Engineering Change Orders		7.5																				
DATA		1.5																				
TRAINING EQUIP	4	4.5																				
SUPPORT EQUIP	1	15.1																				
ILS		15.1																				
OTHER SUPPORT		27.5		0.9																		
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	128	45.1																				
TOTAL PROCUREMENT	865	331.6	3	3.8																		

NOTE: FY06 includes a Congressional Add for NTSU.

Exhibit P-3a

MODIFICATION TITLE: AH-1 APR-39 A(V)2(OSIP 016-98)

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

DESCRIPTION / JUSTIFICATION: Existing AH-1W aircraft self-protection/survivability systems are inadequate to cope with present-day threats. These engineering changes incorporate a survivability system that reduces aircrew workload, centralizes control functions and increases the helicopter's survivability during operations in or near hostile territory by providing additional threat detection capabilities; and enhanced missile and laser detection systems. The Integrated EW System consists of the AH-AAR-47 (V) 2 Missile Warning Set, modification to the existing wiring for installation of the APR-39(V)2 RWR, removal of the AN/APR-44(3) Radar Warning System (MWS), required interfaces, and AN/ALE-47. Additional survivability efforts covered by this OSIP include: IR Signature Reduction (IR Suppressors, Turned Exhaust), upgrades to all existing EW Suite equipment which includes AN/AAR-47(V)2, APR-39(V)2, ALE-47, ALQ-144 and A/C/Aircrew survivability through implementation of improved armor technologies including, but not limited to, transparent armor, armored panels and crew weapons mounts. Portions of the AH-1W Turned Exhaust will forward fit to the AH-1Z.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: This program utilized operationally approved hardware to increase aircraft self protection and survivability. This modificiation will cover a quantity of 180 AH-1W aircraft and 2 AH-1W trainers. Additional Aircraft Survivability issues to be addressed as part of this OSIP include A/C IR signature suppression/reduction efforts (IR Suppressors and Turned Exhaust Systems).

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
Installation)	142	3.2																				
Armor Panels			180	3.6																		
IR Suppressors	55	3.1																				
KIT AFC 369 (ALE-47)	65	0.6																				
Turned Exhaust	65	14.6	66	15.5	45	10.6																
INSTALLATION KITS N/R		3.7		1.6																		
INSTALL EQUIPMENT																						
AAR-47 P Kits	34	1.3																				
INSTALL EQUIPMENT N/R																						
ECO																						
DATA		1.1		0.1																		
TRAINING EQUIP	2	0.4																				
SUPPORT EQUIP		0.4																				
ILS		1.4		0.2		0.1																
OTHER SUPPORT		5.3		1.4		1.9		*		0.2												
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	270	4.9			34	0.6	71	1.2	10	0.2												
TOTAL PROCUREMENT	633	39.9	246	22.4	79	13.2	71	1.2	10	.4												

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

NOTE: FY06 includes Title IX supplemental funding; $15.9M for Turned Exhaust and $6.6M for Increased Survivability

Exhibit P-3a

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

MODIFICATION TITLE: AH-1 APR-39 A(V)2, TURNED EXHAUST (OSIP 016-98)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: CONTRACTOR FIELD MOD TEAM

ADMINISTRATIVE LEADTIME: 3 Months

PRODUCTION LEADTIME: 9 Months

CONTRACT DATES: FY 2006 Sep 06 FY 2007 Jan-06 FY 2008 N/A FY 2009 N/A

DELIVERY DATE: FY 2006 Jun 07 FY 2007 Oct 06 FY 2008 N/A FY 2009 N/A

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (274) kits	270	4.9			4	*																
FY 2006 (66) kits					30	0.6	36	0.6														
FY 2007 (45) kits							35	0.6	10	0.2												
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
FY 2012 () kits																						
FY 2013 () kits																						
TO COMPLETE																						
Total	270	4.9	0	0.0	34	0.6	71	1.2	10	0.2												

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	270							13	21	21	21	21	8	10							
Out	270								13	21	21	21	21	8	10						

	FY 2011				FY 2012				FY 2013					
	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Total
In														
Out														

Totals may not add due to rounding

Exhibit P-3a

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

MODELS OF SYSTEMS AFFECTED: AH-1W 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 turboshaft engines which are controlled throughout the normal operating range by the Electrical Control Unit (EECU) and the Hydro-Mechancial Unit (HMU). Since 1994, 86 total power loss incidents have occurred with the T700-GE-401; 58 ground flameouts, 7 ground rollbacks, 10 inflight shut-downs, and 11 inflight rollbacks. These inadvertent power loss incidents serverely jeopardize aircrew safety. Incorporation of a Digital Electronic Control Unit (DECU) with auto-ignition system will reduce the risk of an uncommanded engine flameout and complete power loss. This change will replace the EECU with a DECU which will be carried forward into the AH-1Z. Additional safety programs that will be implemented by this OSIP include, but are not limited to: Dynamic Component Change (DCC) to incorporate new chip detectors on the 42 and 90 degrees gear boxes are required to provide improved warning of impending failure, and new diller caps to prevent internal corrosion caused by water intrusion. Equipment introduced by this change will be carried forward into the AH-1Z. Incorporation of Crash Attenuating Seat Cushions, to reduce the likelihood of back injuries to pilots during hard landings or crashes, will be investigated for modification. Additional A/C fatigue life issues, including, but not limited to rotor blades, stub wings and tailboom technology, will be investigated to improve performance and mitigate tailboom fatigue. Tailboom Strake technology will be investigated to improve performance and reduce tailboom fatigue. Reduction of cockpit vertigo inducing problems which include "A" Common Cockpit Processor (CCP), Blue Force Tracker (BFT), Head-up-display (HUD) Uprades, Tactile Situation Awareness System (TSAS), Upgrade Transponder (CXP) Tactical Video System, will also be implemented via this OSIP. Additional improvements to increase reliability and reduce maintenance efforts (such as scratch resistant covers, damaged tolerant windscreens and tear-a-way covers, etc.) and mid-air collision avoidance systems will also be accomplished.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: The DECU is a General Electric proprietary, non-developmental item used on the SH-60B and aircraft equipment with T700-GE-401C. Contract awarded 1st quarter FY00. Installation of prototypes were accomplished in 2nd quarter of FY01 to complete verification. This modification will carry forward to the AH-1Z.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
AFC XXX DECU Install Kits	175	0.2																				
CXP (2 per A/C) & CCP (1 per A/C)					2	*																
DCC XXX 42 & 90 Degree Gearbox	50	0.9																				
TEARAWAY WINDSCREEN COVERS			2	0.7																		
INSTALLATION KITS N/R		0.4				*																
INSTALL EQUIPMENT																						
ANVIS HUD			1	0.3																		
CXP(2 per A/C) & CCP (1 per A/C)					2	0.2																
FLAT PANEL DISPLAY			1	0.1																		
PPC XXX Kits	392	5.8																				
INSTALL EQUIPMENT N/R		1.2		1.8		4.0																
ECO																						
Engineering Change Orders		0.2																				
DATA		0.5				0.1																
TRAINING EQUIP		0.9				0.7																
SUPPORT EQUIP		0.9																				
ILS		1.7		0.2		0.3																
OTHER SUPPORT		6.3		2.5		5.6		0.2														
INTERIM CONTRACTOR SUPPORT		0.1																				
INSTALLATION COST					4	*																
TOTAL PROCUREMENT	617	19.1	4	5.5	8	10.9		.2														

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

NOTE: FY06 includes $3.5M Congressional Add for ANVIS HUD, $.687M Tearaway Windscreen covers and $.086M for Flat Panel Display Scratch Resistant Covers Kits will be installed at the organizational level.

FY07 includes Congressional Adds for ANVIS Hud and for Tactical Video Link.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: AH-1W MODIFICATION TITLE: AH-1W A/C & T700 ENG (OSIP 013-00)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: CONTRACTOR FIELD MOD TEAM

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 3 Months

CONTRACT DATES: FY 2006 N/A FY 2007 Jan-07 FY 2008 N/A FY 2009 N/A

DELIVERY DATE: FY 2006 N/A FY 2007 Apr 07 FY 2008 N/A FY 2009 #VALUE!

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (0) kits																						
FY 2006 (0) kits																						
FY 2007 (4) kits					4	*																
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
FY 2012 () kits																						
FY 2013 () kits																						
TO COMPLETE																						
Total	0	0.0	0	0.0	4	0.0	0	0.0	0	0.0												

Installation Schedule

	0	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In								4													
Out									4												

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Totals may not add due to rounding

Exhibit P-3a

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 utlizes linkless, bulk 20MM ammunition common to all other DoN 20MM weapons system improvements (F/A-18, F-14, 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, 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. This modification will be carried forward and must be forward compatible to the AH-1Z.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: This initiative will be implemented by issuance of a new contract based on open competition between several manufacturers of 20MM Weapons System Improvements technology. Contract Award is scheduled for the 4th quarter of FY06. Production installations are forecasted to commence in the 4th quarter of FY07.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
INSTALLATION KITS N/R																						
INSTALL EQUIPMENT																						
Linkless Feed System			2	2.7			18	3.8	15	3.2												
INSTALL EQUIPMENT N/R		0.6																				
ECO																						
Engineering Change Orders		0.1																				
DATA		0.1						0.1		0.3												
TRAINING EQUIP		0.1						0.2		0.5												
SUPPORT EQUIP	3	1.6	2	0.1			6	0.6	5	0.5												
ILS		1.1		0.4		0.2		0.5		0.5												
OTHER SUPPORT		1.1		1.6		1.4		0.9		1.0												
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	5	0.2																				
TOTAL PROCUREMENT	8	4.9	4	4.9		1.6	24	6.0	20	6.1												

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

The 177 represented in the quantity total for Linkless feed Assembly consists of 174 AH-1W's, 1 trainer and 2 prototypes.

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2007	
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy / APN5 Aircraft Modifications**							P-1 ITEM NOMENCLATURE **052800, H-53 SERIES**					
Program Element for Code B Items:							Other Related Program Elements					
	PRIOR YEARS	ID Code	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
QUANTITY												
COST (In Millions)	445.2	A	68.6	55.4	48.1	58.3	41.6	50.0	47.5	47.9	192.4	1054.9

DESCRIPTION: This line item funds modifications to the CH-53D/CH-53E/MH-53E aircraft. As of 1 June 2005, there are 32 MH-53E Helicopters; 148 CH-53E Helicopters; and 37 CH-53D Helicopters. The CH-53E is a seven blade main rotor and a four-blade canted tail rotor helicopter powered by three T64-GE-416A turbo shaft engines on the CH-53E while the CH-53D has six main rotor blades and two T64-GE-413 engines. The CH-53D/E aircraft are capable of both land and ship based transport of heavy equipment, supplies, and personnel. The MH-53E is similar to the CH-53E with additional capabilities for Airborne Mine Countermeasures (AMCM), Vertical On-Board Delivery (VOD), and Special Missions which require longer range and more precise navigation than that of the CH-53E. The overall goal of the modifications budgeted in FY08 was increased communication and navigation, night vision capability, and fleet operation and safety performance in the H-53 community.

The specific modifications budgeted and programmed are:

OSIP No. / DESCRIPTION	PRIOR YEARS	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
012-92 HNVS	178.0	0.5	0.6	0.6	0.7	0.8	1.0	1.0	1.0	28.1	212.2
020-97 ATTEN. TRP SEATS FOR	39.0	11.9									51.0
007-98 INTEGRATED MECH DIAG	61.4	8.4	13.1	2.3	2.9	1.3	3.4	3.4	3.4	23.5	123.2
009-01 NACELLES	7.9	7.0	0.6	2.1	2.9	2.6	2.4				25.5
021-03 H-53 INTERIOR BALLISTIC ARMOR	10.8	0.9									11.8
010-05 H-53 ERIP	40.7	15.3	16.2	13.1	14.1	12.1	11.6	11.8	11.9	86.8	233.6
012-05 H-53 AMARC	4.0	2.9	5.6	2.0							14.5
015-05 H-53 MEDIVAC	10.5	6.6		3.0	4.4	4.2	3.5				32.2
008-06 H-53 A/C SUSTAINMENT		15.0	17.3	18.3	20.4	14.4	14.9	17.5	17.5	31.0	166.3
016-07 H-53 CNS/ATM			2.0								2.0
010-08 DIRCM				6.7	13.0	6.0	13.3	13.7	14.1	23.0	89.9
TOTAL	352.4	68.6	55.4	48.1	58.3	41.6	50.0	47.5	47.9	192.4	962.2
RESERVE FUNDING INCLUDED IN TOTAL		6.8	7.1	7.3	7.5	7.7	7.8	8.0	8.1		

(1) FY07 includes $22.87M of Title IX funding and a $2M Congressional Add for CNS/ATM

Exhibit P-3a

MODIFICATION TITLE: HNVS(OSIP 012-92)

MODELS OF SYSTEMS AFFECTED: CH-53E (148) TYPE MODIFICATION: MISSION/PERFORMANCE ENHANCEMENT

DESCRIPTION / JUSTIFICATION: The Helicopter Night Vision System (HNVS) will provide an infrared night vision system for the CH-53E transport helicopters. The HNVS provides an improved night/all weather mission capability. This OSIP includes integration of the off the shelf APN-217(V)6 Doppler Navigation System and AAQ-16B/29/29A FLIR. Future configuration for CH-53E transport helicopter will be the AAQ-29A FLIR due to obsolescence issues for OEM with AAQ-29. Program is structured to replace AAQ-16 and AAQ-29 with AAQ-29A to establish a single configuration.
Applicable ECP: 0231-E001

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: The AAQ-16B/29 FLIR is a non-developmental Item (NDI) currently installed on a number of U.S. Army, Air Force, and Navy helicopters. DT-IIIA on the CH-53E/HNVS was completed in the third quarter FY 94. Extension of application for CH-53E was granted first quarter FY 95.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E										
PROCUREMENT										
INSTALLATION KITS										
A-Kits (EER)	156	11.6								
INSTALLATION KITS N/R		3.1								
INSTALL EQUIPMENT										
AAQ-29A TFU/SEU	25	14.1			1	0.5	1	0.5	1	0.5
AAQ-29A TFU/SEU Supplemental	53	24.8								
CH-53E Installation Equipment	195	18.7								
CH-53E TFU/SDC AAQ-16B/29	223	72.3								
INSTALL EQUIPMENT N/R										
ECO										
DATA		1.4		0.1						
TRAINING EQUIP		8.4								
SUPPORT EQUIP										
ILS		1.0		0.1						
OTHER SUPPORT		13.2		0.2		0.1		0.2		0.2
INTERIM CONTRACTOR SUPPORT										
INSTALLATION COST	84	9.3	20	0.1	27		25			
TOTAL PROCUREMENT	736	178.0	20	.5	28	.6	26	.6	1	.7

Notes:

1. Kits are installed in FY07 and FY08 using prior year funds.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: CH-53E (148) MODIFICATION TITLE: HNVS(OSIP 012-92)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: A-Kits installed in FY05 by Field Mod Teams. B-Kits (TFUs) installed at O-Level.

ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 9 Months

CONTRACT DATES: FY 2006 Nov 05 FY 2007 FY 2008 FY 2009

DELIVERY DATE: FY 2006 Aug 06 FY 2007 FY 2008 FY 2009

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (156) kits	84	9.3	20	0.1	27		25			
FY 2006 () kits										
FY 2007 () kits										
FY 2008 () kits										
FY 2009 () kits										
Total	84	9.3	20	0.1	27	0.0	25	0.0	0	0.0

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	84	5	2	4	9	6	6	6	9	7	8	10					
Out	84	5	2	4	9	6	6	6	9	7	8	10					

Notes:

1. One kit installation is funded with FY06 funds.

1. Kits procured in prior years are installed in FY06, FY07 and FY08 using prior year funds.

Exhibit P-3a

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

MODELS OF SYSTEMS AFFECTED: CH-53D (37), CH-53E (148), MH-53E (32) 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 utilied for the Procurement, Installation and Support of the seats for all 46 CH-53D Helicopters. Funding for the 46 seats and associated reuirements 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 accomodate today's troops and their body bourn equipment. FY06 supplemental funding will provide NRE, qualification, initial procurement, installation, and support for Crash Attenuating Crew Chief Seat for all H-53 Type/Model/Series helicopters.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E										
PROCUREMENT										
INSTALLATION KITS										
CATS Upgrade Kits	48	1.8	86	3.3						
CH-53D Kits	46	4.6								
CH-53E Kits	154	11.9								
Crew Chief Seats (A Kits)			144	3.3						
MH-53E Cruise Box Kits	26	0.2								
MH-53E Extention Brackets	20	0.1								
MH-53E Kits	22	1.9								
INSTALLATION KITS N/R		1.5		1.5						
INSTALL EQUIPMENT										
Seat Testing	2	0.8								
INSTALL EQUIPMENT N/R										
ECO										
Engineering Change Orders		0.5								
DATA		1.0		0.2						
TRAINING EQUIP		0.2								
SUPPORT EQUIP										
ILS		0.4								
OTHER SUPPORT		9.0		0.7						
INTERIM CONTRACTOR SUPPORT										
INSTALLATION COST	222	5.2		2.9	72		72			
TOTAL PROCUREMENT	540	39.0	230	11.9	72		72			

Notes:

1. CATS Upgrade kits are installed at O-level (no cost)
2. Total quantities include Cruise Box Kits and Extension Brackets.
3. 152 troop seats procured in prior years will not be installed until FY2006 and out due to availability of aircraft during the Global War on Terrorism. Installs are funded with prior year funds.
4. FY06 Supplemental funding is used to procure kits in FY06 and install kits in FY07 and FY08.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: CH-53D (37), CH-53E (148), MH-53E (32) MODIFICATION TITLE: ATTEN. TRP SEATS FOR(OSIP 020-97)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Modification Teams and SDLMs

ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2006 Sep 06 FY 2007 FY 2008 FY 2009

DELIVERY DATE: FY 2006 Mar 07 FY 2007 FY 2008 FY 2009

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS () kits										
FY 2006 (144) kits				2.9	72		72			
FY 2007 () kits										
FY 2008 () kits										
FY 2009 () kits										
Total	0	0.0	0	2.9	72	0.0	72	0.0	0	0.0

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In								36	36	36	36						
Out								36	36	36	36						

Notes:

1. Award date of Sept 2006 is based on 2 month Administrative Leadtime following reciept of FY06 Supplemental funding estimated in Jul 2006.
2. FY06 Supplemental funding is used to procure kits in FY06 and install kits in FY07 and FY08.

Exhibit P-3a

MODIFICATION TITLE: INTEGRATED MECH DIAG(OSIP 007-98)

MODELS OF SYSTEMS AFFECTED: CH-53E (148), MH-53E (32),CH-53E(22) LRIP Quantity

TYPE MODIFICATION: SAFETY, READINESS AND MAINTAINABILITY

DESCRIPTION / JUSTIFICATION: IMD is a helicopter monitoring and diagnostics system that provides continuous on board monitoring and diagnostics of engine health, gearbox and drive train vibrations, oil debris, rotor track and balance, and crash protected Cockpit Voice and Flight Data recorder (CVFDR). CVFDR, an integral part of the IMD system, will perform the required function of a Flight Incident Recorder (FIR). An Early Operational Assessment (EOA) of a Commercial Off-the-Shelf system on two CH-53E's occurred FY96-98. Lessons learned from this effort were incorporated into the solicitation for the fleet wide IMD effort of which the H-53E is the lead platform.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: The 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. FY04-05 quantities are on contract and previously delivered kits are being installed as aircraft become available.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E										
PROCUREMENT										
INSTALLATION KITS										
Accelerometers	1	0.1	1	0.1						
CH-53E A-Kits	54	16.4	20	6.4	31	9.8	3	1.1	6	2.2
INSTALLATION KITS N/R		3.1								
INSTALL EQUIPMENT										
INSTALL EQUIPMENT N/R										
ECO										
DATA		0.7								
TRAINING EQUIP		0.3								
SUPPORT EQUIP		0.4								
ILS		2.4								
OTHER SUPPORT		33.9		0.4		0.6		1.0		0.5
INTERIM CONTRACTOR SUPPORT										
INSTALLATION COST	15	4.0	23	1.6	39	2.7	13	0.2	22	0.3
TOTAL PROCUREMENT	70	61.4	44	8.4	70	13.1	16	2.3	28	2.9

Notes:

1. Kits procured in FY07 with supplemental funding will be installed in FY07, FY08 and FY09.

Totals may not add due to rounding

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: CH-53E (148), MH-53E (32),CH-53E(22) LRIP Quantity MODIFICATION TITLE: INTEGRATED MECH DIAG(OSIP 007-98)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: CONTRACTOR INSTALLED

ADMINISTRATIVE LEADTIME: 5 Months PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2006 Jan 05 FY 2007 Mar-07 FY 2008 Mar-08 FY 2009 Mar-09

DELIVERY DATE: FY 2006 Jul 05 FY 2007 Sep 07 FY 2008 Sep 08 FY 2009 Sep 09

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (54) kits	15	4.0	23	0.2	16	0.1				
FY 2006 (20) kits				1.4	20	0.2				
FY 2007 (31) kits					3	2.5	10		18	
FY 2008 (3) kits							3	0.2		
FY 2009 (6) kits									4	0.3
Total	15	4.0	23	1.6	39	2.7	13	0.2	22	0.3

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	15	6	6	6	5	10	10	10	9			4	9	6	6	5	5
Out	15	6	6	6	5	10	10	10	9			4	9	6	6	5	5

Notes:

1. Installations are for CH-53E A-Kits. Accelerometers are O-level (no-cost) installs.
2. Kits procured in FY07 with Title IX Supplemental funding (qty 22) will be installed in FY08 (qty 10) and FY09 (qty 12). Kits procured in FY07 with non-supplemental funds (qty 2) will be installed in FY07.

Exhibit P-3a

MODIFICATION TITLE: NACELLES(OSIP 009-01)

MODELS OF SYSTEMS AFFECTED: CH-53E (148), MH-53E (32) TYPE MODIFICATION: MISSION/MISSION ENHANCEMENT

DESCRIPTION / JUSTIFICATION: This modification provides improvements to the engine nacelles which are intended to decrease the maintenance man-hours expended on nacelles repair and replacement. This modification will incorporate the forward and aft engine nacelles for the CH-53E and MH-53E.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Contract awarded 2nd Qtr. FY 02. O-Level Validation/Verification was completed May 03. All installations are O-Level. Material quality defects were discovered in the first production lot. Technical data package was studied by the OEM. Contract award is planned in Aug 06 for Non-Recurring Engineering, Tooling and Val/Ver kits. Production delayed until FY07.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E										
PROCUREMENT										
INSTALLATION KITS										
CH/MH-53E KITS (Radian)	46	3.2								
CH/MH-53E KITS (TBD)							39	2.0	53	2.8
CH/MH-53E Kits - Val/Ver	2	0.1								
INSTALLATION KITS N/R		1.2		5.7						
INSTALL EQUIPMENT										
INSTALL EQUIPMENT N/R										
ECO										
DATA		0.1								
TRAINING EQUIP										
SUPPORT EQUIP										
ILS										
OTHER SUPPORT		3.3		1.3		0.6		0.1		0.1
INTERIM CONTRACTOR SUPPORT										
TOTAL PROCUREMENT	48	7.9		7.0		.6	39	2.1	53	2.9

Notes:

1. All installations are O-Level.

Exhibit P-3a

MODIFICATION TITLE: H-53 INTERIOR BALLISTIC ARMOR(OSIP 021-03)

MODELS OF SYSTEMS AFFECTED: CH-53D (37), CH-53E (148), MH-53E (32), 217 Total TYPE MODIFICATION: 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 panels secured to the cockpit and cargo compartment floor and to the sidewall area around the gunners' doors. Standardization Kits are First Article production kits used to verify subsequent Ballistic Armor Production Runs.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: The BPS is estimated to complete production for the CH-53E, CH-53D, and MH-53E in Aug 06. Every H-53 will receive installation provisions (A-Kit), and an armor panel set (D-Kit) will go to approximately half of the aircrafts. The BPS can be quickly moved from aircraft to aircraft according to mission needs once the A-Kit has been installed.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E										
PROCUREMENT										
INSTALLATION KITS										
CH-53D A-KITS (PMC)	35	0.5								
CH-53E A-KITS (PMC)	149	2.0	5	0.1						
(PMC)	1	*								
MH-53E A-KITS (PMC)	32	0.5								
INSTALLATION KITS N/R										
INSTALL EQUIPMENT										
P-Kits CH-53D	14	1.2	1	0.1						
P-Kits CH-53E	61	5.1	7	0.6						
P-Kits MH-53E	13	1.1								
INSTALL EQUIPMENT N/R										
ECO										
DATA		0.1		*						
TRAINING EQUIP										
SUPPORT EQUIP		0.1								
ILS		0.1		0.1						
OTHER SUPPORT		0.2								
INTERIM CONTRACTOR SUPPORT										
TOTAL PROCUREMENT	305	10.8	13	.9						

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

Notes:

1. All installations are O-Level.

2. Standardization Kits are First Article production kits used to verify subsequent Ballistic Armor Production Runs.

Exhibit P-3a

MODIFICATION TITLE: H-53 ERIP(OSIP 010-05)

MODELS OF SYSTEMS AFFECTED: H-53 T64 Turbo-shaft engines (462) TYPE MODIFICATION: SAFETY, READINESS AND MAINTAINABILITY

DESCRIPTION / JUSTIFICATION: The T64 Engine reliability Improvement Program upgrades top age related engine degraders, fatigue limiters, and performance degradation on the T64 engine. A concentrated effort is to upgrade the T64-416 engines to the T64-416A configuration by replacing components of the engine with improved hardware designs to increase reliability and reduce logistical requirements by conforming to one configuration. Other efforts are to improve age related components such as torques measuring gauges and thermocouples that have become obsolescent. The T-64 Engine Air Particle Separator (EAPS) 360 Degree Seal effort will modify MH-53E and CH-53D aircraft to incorporate improved seals between the engine and the EAPS system to reduce the amount of particulate matter that bypasses the EAPS and enters the engine airstream. The current EAPS seal does not provide adequate protection in all operating environments. The improved EAPS seal is expected to eliminate the current sealing issues.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: 462 engines remain to be upgraded from -416 to -416A. The -416A upgrade kit development was previously completed. Only procurement of the -416A upgrade kits is required under this OSIP. Kits procured with FY04 Title IX Supplemental funding began installs in FY05. A full rate production decision for the CH-53E EAPS seal is expected by the end of March 2007. The improved CH-53E EAPS seal design will be compatible with the MH-53E and CH-53D. Development of an EAPS barrel change for the CH-53D is needed for incorporation of the change.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E										
PROCUREMENT										
INSTALLATION KITS										
INSTALLATION KITS N/R										
INSTALL EQUIPMENT										
416A CONVERSION KITS	21	2.7								
416A UPGRADE (GE)	84	12.4								
AIR STARTER KITS	8	0.2								
COMPRESSOR ROTOR SET KITS	960	0.7								
EAPS 360 Degree Seal					170	0.7				
IMPROVED EAPS SEAL (SAC)					174	0.4	270	0.7		
REL IMPROVEMENT KITS (BSR) (GE)	38	3.2								
T2 HOUSING KICKSTAND (GE)	933	0.2								
T64 COMP CASES FOR SUPPORT TIN	5	0.3								
T64 ERIP Kits			21	5.6	60	10.1	34	9.7	41	12.1
TIN SETS (GE)	48	13.2	33	7.9						
VG ACTUATOR KITS	1,100	*								
INSTALL EQUIPMENT N/R		3.2				0.6				
ECO										
DATA		1.0		*		0.1				
TRAINING EQUIP										
SUPPORT EQUIP		1.9		0.2		1.6		0.2		0.3
ILS										
OTHER SUPPORT		1.5		1.3		2.0		1.8		1.7
INTERIM CONTRACTOR SUPPORT										
INSTALLATION COST	134	0.2	13	0.3	208	0.8	406	0.6		
TOTAL PROCUREMENT	3,331	40.7	67	15.3	612	16.2	710	13.1	41	14.1

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

Notes:

1. Title IX Supplemental funding is identified as FY04 funding but is benig executed in FY05
2. EAPS 360 Degree Seal kits procured in FY07 with Title IX Supplemental funding are installed in FY07 and FY08.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: H-53 T64 Turbo-shaft engines (462) MODIFICATION TITLE: H-53 ERIP(OSIP 010-05)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Field Modification Team

ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 3 Months

CONTRACT DATES: FY 2006 FY 2007 Nov-06 FY 2008 Nov-07 FY 2009

DELIVERY DATE: FY 2006 FY 2007 Feb 07 FY 2008 Feb 08 FY 2009

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (134) kits	134	0.2								
FY 2006 (13) kits			13	0.3						
FY 2007 (174) kits					174	0.4				
FY 2008 (270) kits							270	0.6		
FY 2009 () kits										
Total	134	0.2	13	0.3	174	0.4	270	0.6	0	0.0

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	134				13		42	60	72	60	72	72	66				
Out	134				13		42	60	72	60	72	72	66				

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: H-53 T64 Turbo-shaft engines (462) MODIFICATION TITLE: EAPS 360 Degree Seal

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Field Modification Team

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 3 Months

CONTRACT DATES: FY 2006 FY 2007 Apr-07 FY 2008 FY 2009

DELIVERY DATE: FY 2006 FY 2007 Jul 07 FY 2008 FY 2009

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS () kits										
FY 2006 () kits										
FY 2007 (170) kits					34	0.4	136			
FY 2008 () kits										
FY 2009 () kits										
Total	0	0.0	0	0.0	34	0.4	136	0.0	0	0.0

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In									34	34	34	34	34				
Out									34	34	34	34	34				

Notes:

1. EAPS 360 Degree Seal kits procured in FY07 with Title IX Supplemental funding are installed in FY07 and FY08.

Exhibit P-3a

MODIFICATION TITLE: H-53 AMARC(OSIP 012-05)

MODELS OF SYSTEMS AFFECTED: CH-53E (147) TYPE MODIFICATION: SAFETY, READINESS AND MAINTAINABILITY

DESCRIPTION / JUSTIFICATION: The Aerospace Maintenance & Regeneration Center (AMARC) will support the restoration of five CH-53E helicopters from long-term preservation and storage into the active inventory. The Weapon System Planning Document (WSPD) reflects a requirement for 153 CH-53E Primary Aircraft Authorized (PAA). Due to combat related losses and mishaps during the GWOT, there are currently 148 PAA aircraft. To get back to the WSPD requirement, the USMC must remove five aircraft from war reserve storage at AMARC and return them to active status. This OSIP includes (1) preparation for the aircraft to come out of AMARC, (2) bringing aircraft to a fleet representative condition with all currently installed modifications, (3) replacement of obsolete items (swashplate, tail rotor head, etc.), (4) replacement of all parts that have deteriorated beyond use during storage (tires, fuel lines, etc.), (5) transportation to NADEP Cherry Point, and (6) putting the aircraft through SDLM. Supplemental funding was sufficient for three kits only. FY06 supplemental was received for two additional kits.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: BUNO 161532 was inducted into SDLM in Aug 2005 and scheduled to be delivered to the fleet in Jan 2007. BUNOs 161539 and 161542 were inducted into SDLM in Sep 2005 and are scheduled to be delivered to the fleet in Feb 2007. Aircraft #s 4 and 5 will be inducted into SDLM in Sept 2006 and are scheduled to be delivered to the fleet in Oct 2007. Aircraft #s 6 and 7 are planned to be inducted into SDLM in May 2007 and delivered to the fleet 15 months after induction.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E										
PROCUREMENT										
INSTALLATION KITS										
AIRCRAFT (BUNO 161532)	1	0.3								
AIRCRAFT (BUNO 161539)	1	0.2								
AIRCRAFT (BUNO 161542)	1	0.3								
AIRCRAFT (BUNO TBD #4 AND #5)			2	1.5						
AIRCRAFT (BUNO TBD #6 AND #7)					2	2.9				
AIRCRAFT (BUNO TBD #8 AND #9)							2	0.6		
INSTALLATION KITS N/R		1.7								
INSTALL EQUIPMENT										
INSTALL EQUIPMENT N/R										
ECO										
DATA										
TRAINING EQUIP										
SUPPORT EQUIP										
ILS										
OTHER SUPPORT				0.2		0.2		0.2		
INTERIM CONTRACTOR SUPPORT										
INSTALLATION COST		1.6		1.2	3	2.5	4	1.2	2	
TOTAL PROCUREMENT	3	4.0	2	2.9	5	5.6	6	2.0	2	

Totals may not add due to rounding

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: CH-53E (147) MODIFICATION TITLE: H-53 AMARC(OSIP 012-05)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Various (Field Maintenance Teams, Concurrent with SDLM, Depot)

ADMINISTRATIVE LEADTIME: N/A Months PRODUCTION LEADTIME: 3 Months

CONTRACT DATES: FY 2006 Jul 06 FY 2007 Feb-07 FY 2008 Feb-08 FY 2009

DELIVERY DATE: FY 2006 Sep 06 FY 2007 May 07 FY 2008 May 08 FY 2009

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (3) kits		1.6			3					
FY 2006 (2) kits				1.2			2			
FY 2007 (2) kits						2.5	2			
FY 2008 (2) kits								1.2	2	
FY 2009 () kits										
Total	0	1.6	0	1.2	3	2.5	4	1.2	2	0.0

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	3				2			2				2					
Out							3			2			2				2

Notes:

1. FY07 installations funded with FY05 supplemental funds
2. FY08 installations funded with FY06 and FY07 supplemental funds
3. FY09 installations funded with FY08 funds

Exhibit P-3a

MODIFICATION TITLE: H-53 MEDIVAC(OSIP 015-05)

MODELS OF SYSTEMS AFFECTED: CH-53D (37), CH-53E (148), MH-53E (32), 217 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 protect 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: Phase I effort (8 aircraft) complete in November 2005. Blue Force Tracker effort will be complete in July 2006. Fully equipped aircraft deployment scheduled for February 2006. Phase II effort (8 aircraft) estimated completion date December 2006.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E										
PROCUREMENT										
INSTALLATION KITS										
BFT A Kits	20	0.3	42	1.1						
H-53 NVD Helmet Kits	355	0.1								
MH AAR-47							2	0.1	6	0.3
MH ALE-47							2	0.1	6	0.1
MH ASE Suite A-Kits			8	1.1						
MH NVD Cockpit							2	0.2	6	0.7
MH-53E ASE Prerequisite Kits	20	0.1								
Ramp Mounted Weapon System			15	1.1			2	0.1	6	0.4
INSTALLATION KITS N/R		*		0.4						
INSTALL EQUIPMENT										
BFT B Kits	11	0.3	28	0.3						
MH AAR-47 (P-Kit)	64	1.8								
MH ALE-47 (P-Kit)	38	1.0								
SPARES	10	0.5								
INSTALL EQUIPMENT N/R		0.2		0.4						
ECO										
DATA		0.4		0.2				0.1		0.2
TRAINING EQUIP		0.5						0.3		
SUPPORT EQUIP		0.6						0.1		
ILS		0.3						0.6		
OTHER SUPPORT		2.2		1.0				1.1		2.1
INTERIM CONTRACTOR SUPPORT										
INSTALLATION COST	37	2.1	30	1.0			6	0.3	18	0.6
TOTAL PROCUREMENT	555	10.5	123	6.6			14	3.0	42	4.4

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

Notes:

1. $0.5M of FY05 Supplemental is for procurement of spares. This funding is included in the Install Equipment (B Kits) line
2. FY06 installations funded with FY05 supplemental funds
3. FY07 installations funded with FY06 supplemental funds
4. RMWS installations are O-level (no cost).

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: CH-53D (37), CH-53E (148), MH-53E (32), 217 Total MODIFICATION TITLE: H-53 MEDIVAC(OSIP 015-05)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Field Modification Teams

ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2006 Jan 05 FY 2007 Nov-06 FY 2008 Nov-07 FY 2009 Nov-08

DELIVERY DATE: FY 2006 Jul 05 FY 2007 May 07 FY 2008 May 08 FY 2009 May 09

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (37) kits		2.1	37							
FY 2006 (30) kits				1.0	30					
FY 2007 () kits										
FY 2008 (6) kits							6	0.3		
FY 2009 (18) kits									18	0.6
Total	0	2.1	37	1.0	30	0.0	6	0.3	18	0.6

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In				19	18			15	15			3	3			9	9
Out				19	18			15	15			3	3			9	9

Notes:

1. ALE-47 kits procured in FY05 with supplemental funds will be installed in FY06. Installations are funded with FY05 supplemental funds.
2. PMA-299 funded 6 ALE-47 installations in FY06.
3. Kits procured in FY06 with supplemental funds will be installed in FY07.

Exhibit P-3a

MODIFICATION TITLE: H-53 A/C SUSTAINMENT(OSIP 008-06)

MODELS OF SYSTEMS AFFECTED: CH-53D (37), CH-53E (148), MH-53E (32), 217 Total TYPE MODIFICATION: MISSION/PERFORMANCE SUSTAINMENT

DESCRIPTION / JUSTIFICATION: The H-53 Aircraft are included in the Naval Aviation Plan to support Sea Power 21 through CY 2020. The H-53 Aircraft Sustainment Strategy targets initiatives to remedy the top age-related maintenance degraders, fatigue life limiters, and safety issues that impede the aircraft's ability to operate into the future. This program implements a concentrated effort to utilize improvements to the H-53 component obsolescence (e.g. Engine Air Particle Separator (EAPS) redesign), structural limitations (e.g. transition bulkhead and station 820 structural improvement), aircrew safety systems and program sustainment support. This effort will sustain the H-53 legacy fleet in an affordable manner until the H-53 follow-on aircraft becomes available.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: The H-53 Sustainment Program Acquisition Strategy was approved by PEO(A) in March 2006, to be executed as four Abbreviated Acquisition Programs (AAPs) for (1) Fatigue, (2) Obsolexcence, (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 ameanable to a "block upgrade" type appraoch. 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 and installed quickly during maintenance.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E										
PROCUREMENT										
INSTALLATION KITS										
#2 ENGINE BACKFLOW IMPROV KITS (CHE,MHE)							2	0.1	60	1.8
ARC FAULT CIRCUIT BREAKERS					9	0.1	30	0.3	30	0.3
COMMON GCU SHIP-SETS					9	*	30	0.2	30	0.2
EAPS IMPROVEMENT KITS - CHE, MHE (SAC)							18	0.6	18	0.7
EMERGENCY EGRESS LIGHTING					50	0.9	50	1.0	50	1.0
GYRO REPLACEMENT (CH-D)					37	2.6				
NGB IMPROVED SEAL KITS			476	3.1						
NLG DOOR BRACKET			215	0.3						
OBSOLESCENT COMPONENTS REPLACEMENT							20	1.5	49	4.4
ROTOR BLADE COATING APPLICATION KITS									15	0.5
STATION 820 BULKHEAD (CH-E)			49	0.3	40	0.2	39	0.2	30	0.2
TRANSITION BULKHEAD (CH-E)			4	0.3	5	0.4	8	0.7	10	0.9
TRANSITION BULKHEAD (MH-E)					1	0.1	4	0.4	3	0.3
WIRING DIAGNOSTICS KITS					14	0.4	30	0.6	30	0.7
INSTALLATION KITS N/R				5.5		4.2		0.4		0.6
INSTALL EQUIPMENT										
INSTALL EQUIPMENT N/R								3.4		2.6
ECO										
DATA				0.6		0.6		0.6		0.6
TRAINING EQUIP										
SUPPORT EQUIP										
ILS				1.0		1.0		0.8		0.7
OTHER SUPPORT				3.5		6.2		6.1		2.2
INTERIM CONTRACTOR SUPPORT										
INSTALLATION COST			50	0.7	40	0.5	101	1.5	156	2.8
TOTAL PROCUREMENT			794	15.0	205	17.3	332	18.3	481	20.4

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

Notes:

1. Installation costs are for these items only, all other items are O-level installs.
2. Transition Bulkhead installs funded with FY of procurement, but have 18 month leadtime

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: H-53 A/C SUSTAINMENT(OSIP 008-06) MODIFICATION TITLE: Station 820 Bulkhead

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Various types of installation methods include: SDLM, FMT, and Contractor installations

ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2006 Nov 05 FY 2007 Nov-06 FY 2008 Nov-07 FY 2009 Nov-08

DELIVERY DATE: FY 2006 May 06 FY 2007 May 07 FY 2008 May 08 FY 2009 May 09

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS () kits										
FY 2006 (49) kits			49	0.6						
FY 2007 (40) kits					40	0.5				
FY 2008 (39) kits							39	0.5		
FY 2009 (30) kits									30	0.3
Total	0	0.0	49	0.6	40	0.5	39	0.5	30	0.3

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In				24	25			20	20			19	20			15	15
Out				24	25			20	20			19	20			15	15

Totals may not add due to rounding

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: H-53 A/C SUSTAINMENT(OSIP 008-06) MODIFICATION TITLE: #2 Engine Backflow, ARC Fault Wiring/Diagnostics, EAPS Improvements, Emergency Egress Lighting, Obsolent Components

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Numerous types of kits will be procured in this program. Each has it own unique installation metho

ADMINISTRATIVE LEADTIME: 4 Months PRODUCTION LEADTIME: 10 Months

CONTRACT DATES: FY 2006 ____ FY 2007 Jan-07 FY 2008 Jan-08 FY 2009 Jan-09

DELIVERY DATE: FY 2006 ____ FY 2007 Nov 07 FY 2008 Nov 08 FY 2009 Nov 09

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS () kits												
FY 2006 () kits												
FY 2007 (59) kits							59	0.6				
FY 2008 (120) kits									120	1.8		
FY 2009 (207) kits											207	3.1
Total	0	0.0	0	0.0	0	0.0	59	0.6	120	1.8	207	3.1

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In										11	16	16	16	15	35	35	35
Out										11	16	16	16	15	35	35	35

Totals may not add due to rounding

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: H-53 A/C SUSTAINMENT(OSIP 008-06) MODIFICATION TITLE: Transition Bulkhead

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: SDLM

ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 18 Months

CONTRACT DATES: FY 2006 Feb 06 FY 2007 Mar-07 FY 2008 Mar-08 FY 2009 Mar-09

DELIVERY DATE: FY 2006 Aug 06 FY 2007 Sep 08 FY 2008 Sep 09 FY 2009 Sep 10

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS () kits										
FY 2006 (4) kits			1	0.1			3	0.4		
FY 2007 (6) kits									6	0.6
FY 2008 (12) kits										
FY 2009 (13) kits										
Total	0	0.0	1	0.1	0	0.0	3	0.4	6	0.6

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In					1					1	1	1		2	2	2	
Out					1					1	1	1		2	2	2	

Totals may not add due to rounding

Exhibit P-3a

MODIFICATION TITLE: H-53 CNS/ATM(OSIP 016-07)

MODELS OF SYSTEMS AFFECTED: CH-53E (148), MH-53E (32) TYPE MODIFICATION: MISSION/PERFORMANCE SUSTAINMENT

DESCRIPTION / JUSTIFICATION: Under the CNS/ATM upgrade program Common Avionics is providing a variant of the Army Common Avionics Architecture System (CAAS) to enable full compliance with CNS/ATM Functional Requirements. The cockpit design of the H-53 will be drastically altered bringing a glass cockpit system to the In-Service CH-53E and MH-53E fleet. The limitation of the system design provided was that it failed to remove many legacy gauges and equipment (Primarily engine instruments and hydraulics) which were not directly impacted by CNS/ATM functionality. This limited the cockpit to 4 displays as opposed to the Army 5 display configuration and created a more difficult and safety concerned flight environment forcing the pilot to fly both glass displays and traditional gauges simultaneously. The NRE provided will allow all of the engine instruments and hydraulics to be removed and hosted under glass and allow a 5th display to be incorporated into the system design. The 5th display offers significantly enhanced tactical and mission performance improvements by allowing a pilot to display moving map or blue force data on a center display while still maintaining all primary flight and navigation information on the main displays. Gains in aircraft capability will be in mission performance,tactical situational awareness, and safety. Production tail and recurring costs will be funded through Common Avionics.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: SRR Completed July 2006, Jan 30 - 01 Feb 2007 Preliminary Design Review, Jun 2007 Critical Design Review.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E										
PROCUREMENT										
INSTALLATION KITS										
INSTALLATION KITS N/R						2.0				
INSTALL EQUIPMENT										
INSTALL EQUIPMENT N/R										
ECO										
DATA										
TRAINING EQUIP										
SUPPORT EQUIP										
ILS										
OTHER SUPPORT										
INTERIM CONTRACTOR SUPPORT										
TOTAL PROCUREMENT						2.0				

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

Exhibit P-3a

MODIFICATION TITLE: DIRCM(OSIP 010-08)

MODELS OF SYSTEMS AFFECTED: CH-53E (148) TYPE MODIFICATION: SURVIVABILITY

DESCRIPTION / JUSTIFICATION: Currently, the H-53E 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 CH-53Es. This system will help protect the CH-53E which is highly susceptable 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 against the most-common first generation manpads. PMA-272 is procuring the P-kits.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: N/A. ECP development, A-kit procurement and installation doesn't begin until FY08.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E										
PROCUREMENT										
INSTALLATION KITS										
DIRCM A Kits							1	0.5	18	5.7
INSTALLATION KITS N/R								4.4		0.8
INSTALL EQUIPMENT										
INSTALL EQUIPMENT N/R										
ECO										
DATA								0.4		0.2
TRAINING EQUIP										1.1
SUPPORT EQUIP										
ILS										
OTHER SUPPORT								0.9		1.6
INTERIM CONTRACTOR SUPPORT										
INSTALLATION COST							1	0.4	18	3.7
TOTAL PROCUREMENT							2	6.7	36	13.0

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

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: CH-53E (148) MODIFICATION TITLE: DIRCM(OSIP 010-08)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Field Modification Team

ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 3 Months

CONTRACT DATES: FY 2006 FY 2007 Nov-06 FY 2008 Nov-07 FY 2009 Nov-08

DELIVERY DATE: FY 2006 FY 2007 Feb 07 FY 2008 Feb 08 FY 2009 Feb 09

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS () kits										
FY 2006 () kits										
FY 2007 () kits										
FY 2008 (1) kits							1	0.4		
FY 2009 (18) kits									18	3.7
Total	0	0.0	0	0.0	0	0.0	1	0.4	18	3.7

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In												1			6	6	6
Out												1			6	6	6

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2007	
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy / APN5 Aircraft Modifications**							P-1 ITEM NOMENCLATURE **053000, SH-60 SERIES**					
Program Element for Code B Items:							Other Related Program Elements					
	PRIOR YEARS	ID Code	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
QUANTITY												
COST (In Millions)	212.5	A	14.0	23.5	58.6	62.5	71.6	80.1	75.0	73.9	308.4	980.3

DESCRIPTION: This line item funds modifications to H-60 series aircraft. The H-60 series program of record is comprised of: 38 HH-60H, 145 SH-60B, 72 SH-60F, 149 MH-60S, 46 MH-60R. The HH-60H is a Combat Search and Rescue (CSAR) and Special Warfare Support (SWS) helicopter assigned to carrier airwings aboard CVs and also in two reserve squadrons. 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, Air Ambulance, SH-60F High Strength Sonar Cable, Armed Block I Upgrade for the MH-60R, SH-60B Drug Interdiction Forward Looking Infrared (FLIR), H-60 Helicopter Visit, Board, Search, and Seizure (HVBSS), MH-60S Warfighting Capability, and Automatic Radar Periscope Detection Discrimination (ARPDD). The specific modifications budgeted and programmed are:

OSIP No. / DESCRIPTION	PRIOR YEARS	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
017-00 HEL0 INTG MECH DIAGN	24.8	1.4	0.2								26.3
009-03 SAFETY RELATED SYSTEM UPGRADE	24.8	1.9	4.2	3.9	3.9	5.5	5.7	5.8	5.8	12.3	73.8
016-04 MH-60S AMCM/ARMED HELO	12.6	3.1	3.8	8.1	6.7	3.5	2.1	0.4			40.2
017-05 HIGH STRENGTH SONAR CABLE SH-60F	1.4	1.6	0.2								3.2
001-06 MH-60R ARMED BLOCK I UPGRADE		4.3	4.9	24.7	23.4	32.2	29.8	25.0	22.9		167.2
018-06 H-60 DRUG INTERDICTION FLIR		1.7									1.7
008-07 H-60 HVBSS			4.0	1.2	1.2						6.4
009-07 MH-60S WARFIGHTING CAPABILITY			6.2	20.7	27.4	30.4	29.6	25.6	20.1	34.1	194.0
004-11 AUTOMATIC RADAR PERISCOPE DETECTION DESCRIMINATION							13.0	18.4	25.1	262.0	318.5
TOTAL	63.6	14.0	23.5	58.6	62.5	71.6	80.1	75.0	73.9	308.4	831.3

Exhibit P-3a

MODIFICATION TITLE: HEL0 INTG MECH DIAGN(OSIP 017-00)

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

TYPE MODIFICATION: OPERATIONAL ENHANCEMENT/SAFETY

DESCRIPTION / JUSTIFICATION: Integrated Mechanical Diagnostic System (IMDS) is a helicopter monitoring and diagnostic systems that provides continuous onboard monitoring and diagnostic of engine health,gearbox, drive train vibrations, oil debris, and rotor track and balance. The IMD system also includes a Cockpit Voice Recorder and Flight Data Recorder (CVRFDR) capability.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Revised Acquisition Strategy from lease concept to procurement; approved by PEO (A) December 1999. IMD Development Testing (DT) started on the SH-60B at Rotary Wing January 2000. Limited LRIP decision April 2001, for hardware based on DT-IIA. Software DT-IIB completed November 2002. DT-IIC completed December 2003. Inventory included 1 HH-60H that was rebuilt at Troy, AL. 2 SH-60B were designated NSH-60B, and 1 additional SH-60F aircraft designated YSH-60F.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E										
PROCUREMENT										
INSTALLATION KITS										
LEGACY AIRCRAFT INSTALL KIT	3	1.2								
MH-60R	1	0.2	1	0.2						
MH-60S	5	0.8	5	0.8						
INSTALLATION KITS N/R		10.6		0.1						
INSTALL EQUIPMENT										
INSTALL EQUIPMENT N/R										
ECO										
DATA		1.0								
TRAINING EQUIP		0.1								
SUPPORT EQUIP		0.3		0.1						
ILS		1.2								
OTHER SUPPORT		9.0		0.2						
INTERIM CONTRACTOR SUPPORT										
INSTALLATION COST	3	0.5			6	0.2				
TOTAL PROCUREMENT	12	24.8	6	1.4	6	.2				

Totals may not add due to rounding

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: SH-60B, SH-60F, HH-60H, MH-60R, MH-60S MODIFICATION TITLE: HEL0 INTG MECH DIAGN (OSIP 017-00)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 11 Months

CONTRACT DATES: FY 2006 Nov 06 FY 2007 FY 2008 FY 2009

DELIVERY DATE: FY 2006 Oct 07 FY 2007 FY 2008 FY 2009

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (3) kits	3	0.5								
FY 2006 (6) kits					6	0.2				
FY 2007 () kits										
FY 2008 () kits										
FY 2009 () kits										
FY 2010 () kits										
FY 2011 () kits										
FY 2012 () kits										
FY 2013 () kits										
TO COMPLETE										
Total	3	0.5	0	0.0	6	0.2	0	0.0	0	0.0

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	3						2	2	2								
Out	3						2	2	2								

Note: Installation kits deliver in October 2006; however, installations will begin in January 2007

Exhibit P-3a

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: (ALL TMS): Safety Related Systems Upgrade funds modifications to improve the safety of operating H-60 Series aircraft in all operations. 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.

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.

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. The retrofit plan for systems to be modified as follows: MH-60S 74.

METHOD OF IMPLEMENTATION: New White Harness, Fast Tactical Imaging are "O" Level Installs.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E										
PROCUREMENT										
INSTALLATION KITS										
H-60 HIGH SPEED SHAFT (ALL TMS)	685	8.4								
H-60 LIGHTED RAST PROBE(SH-60B/SH-60F/HH	202	0.1								
HH-60H GAU-17 Weapon Assembly Mod			15	0.2						
HH-60H GUNNER BELTS (Webbing Retractors)	120	0.2								
MH-60S GUNNER BELTS (Webbing Retractors)	116	0.2								
NEW WHITE HARNESS (ALL TMS)					110	1.7	125	2.0	125	2.0
SH-60B GUNNER BELTS (Webbing Retractors)	160	0.3								
SH-60F GUNNER BELTS (Webbing Retractors)	222	0.4								
WHITE HARNESS (ALL TMS)	548	0.2								
INSTALLATION KITS N/R		2.1		*						
INSTALL EQUIPMENT										
HH-60H/SH-60B FAST TACTICAL IMAGING	54	0.5								
MH-60S GPWS CARDS	128	0.7								
MH-60S/MH-60R GUNNER BELTS (Webbing Reta	104	0.3								
SH-60B/SH-60F/HH-60H GUNNER BELTS (Webbi	78	0.2								
SH-60B/SH-60F/HH-60H LIGHTED RAST PROBE	1	0.1								
WIDE FOV NVG (ALL TMS)							4	0.2	4	0.2
INSTALL EQUIPMENT N/R		3.1								
ECO										
SAFETY RELATED ECO		*								
DATA		1.5		0.4		0.5				
TRAINING EQUIP		0.4		0.1		0.3				
SUPPORT EQUIP										
ILS		0.6		0.3		0.5		0.5		0.5
OTHER SUPPORT		5.3		0.3		1.3		1.2		1.2
INTERIM CONTRACTOR SUPPORT										
INSTALLATION COST			128	0.6						
TOTAL PROCUREMENT	2,418	24.8	143	1.9	110	4.2	129	3.9	129	3.9

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

Totals may not add due to rounding

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: SH-60B, SH-60F, HH-60H, MH-60R, MH-60S MODIFICATION TITLE: GPWS Cards (OSIP 009-03)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 7 Months PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2006 FY 2007 FY 2008 FY 2009

DELIVERY DATE: FY 2006 FY 2007 FY 2008 FY 2009

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (128) kits			128	0.6						
FY 2006 () kits										
FY 2007 () kits										
FY 2008 () kits										
FY 2009 () kits										
Total	0	0.0	128	0.6	0	0.0	0	0.0	0	0.0

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In		32	32	32	32												
Out		32	32	32	32												

Exhibit P-3a

MODIFICATION TITLE: MH-60S AMCM/ARMED HELO(OSIP 016-04)

MODELS OF SYSTEMS AFFECTED: MH-60S TYPE MODIFICATION: OPERATIONAL ENHANCEMENT

DESCRIPTION / JUSTIFICATION: Based on Developmental and Operational testing, Fleet aircraft require modifications to correct identified deficiencies incorporated in production aircraft. These modifications include corrections to Common Cockpit Avionics, Auxiliary Fuel System, High Maintenance Battery, Search and Rescue Equipment, 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 119 Aircraft.

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.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E										
PROCUREMENT										
INSTALLATION KITS										
Bifilar	38	2.0	12	0.6						
ECP 4000 Retrofit	14	3.6	9	2.3	7	1.9	11	3.0	9	2.5
NVD KITS					6	0.3	24	1.1	34	1.6
ULMB	26	0.6								
INSTALLATION KITS N/R		3.5								
INSTALL EQUIPMENT										
AMCM MISSION EQUIP MODS							6	3.2	2	1.1
AUX TANKS	20	2.8								
INSTALL EQUIPMENT N/R										
ECO										
DATA										
TRAINING EQUIP										
SUPPORT EQUIP										
ILS										
OTHER SUPPORT		0.1		*		0.1		0.1		0.1
INTERIM CONTRACTOR SUPPORT										
INSTALLATION COST			2	0.1	24	1.6	15	0.7	39	1.3
TOTAL PROCUREMENT	98	12.6	23	3.1	37	3.8	56	8.1	84	6.7

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

Totals may not add due to rounding

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: 3 Months PRODUCTION LEADTIME: 8 Months

CONTRACT DATES: FY 2006 Jan 06 FY 2007 Dec-06 FY 2008 Dec-07 FY 2009 Dec-08

DELIVERY DATE: FY 2006 Sep 06 FY 2007 Aug 07 FY 2008 Aug 08 FY 2009 Aug 09

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (14) kits			2	0.1	12	0.8				
FY 2006 (9) kits					9	0.7				
FY 2007 (7) kits							7	0.5		
FY 2008 (11) kits									11	0.8
FY 2009 (9) kits										
Total	0	0.0	2	0.1	21	1.5	7	0.5	11	0.8

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In					2	5	5	5	6	1	2	2	2	2	3	3	3
Out						2	5	5	5	6	1	2	2	2	2	3	3

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: 2 Months PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2006 FY 2007 Dec-06 FY 2008 Dec-07 FY 2009 Dec-08

DELIVERY DATE: FY 2006 FY 2007 Jun 07 FY 2008 Jun 08 FY 2009 Jun 09

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS () kits										
FY 2006 () kits										
FY 2007 (6) kits					3	0.1	3	0.1		
FY 2008 (24) kits							5	0.1	19	0.3
FY 2009 (34) kits									9	0.2
Total	0	0.0	0	0.0	3	0.1	8	0.1	28	0.5

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In									3	3			5	6	6	7	9
Out									3	3			5	6	6	7	9

Note: Installation kits will deliver in June 2007; however, installation will begin in July 2007.

Exhibit P-3a

MODIFICATION TITLE: HIGH STRENGTH SONAR CABLE SH-60F(OSIP 017-05)

MODELS OF SYSTEMS AFFECTED: SH-60F TYPE MODIFICATION: OPERATIONAL ENHANCEMENT

DESCRIPTION / JUSTIFICATION: This new start program will permit retrofit of the more reliable and capable High Strength Sonar Cable. The intent of this program change is to fully fund improved AQS-13F sonar cables across the SH-60F helicopter fleet which will be in service through 2015. To date, the United States Navy (USN) has experienced 40 AN/AQS-13F sonar mishaps at not only a $17.6M total cost but also with a significant impact to aircrew safety and readiness. With the AQS-13F, a dipped helicopter sonar, the common causal factor in mishaps has been tensile overstress leading to sonar cable breakage and loss of the AQS-13F transducer. The material solution to mitigate AQS-13F transducer loss lies in strengthening the sonar cable. An improved AQS-13F sonar cable, incorporating an MP-35 strength member, has been designed and has demonstrated a 60% increase in tensile strength and will result in dramatically increased ASW readiness resulting from operational restrictions to be placed on its use.
FY2005 High Strength Sonar Cable Install Equipment unit costs are lower to account for 35 Sonar Cables already in inventory; inventory cables only require sheathing.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: No development required.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E										
PROCUREMENT										
INSTALLATION KITS										
INSTALLATION KITS N/R		*								
INSTALL EQUIPMENT										
HIGH STRENGTH SONAR CABLE			35	1.3						
PEDESTAL RETROFIT	35	0.2	35	0.2						
INSTALL EQUIPMENT N/R		0.6								
ECO										
DATA		0.3								
TRAINING EQUIP		*								
SUPPORT EQUIP										
ILS		0.1								
OTHER SUPPORT		0.2								
INTERIM CONTRACTOR SUPPORT										
INSTALLATION COST			10	*	60	0.2				
TOTAL PROCUREMENT	35	1.4	80	1.6	60	.2				

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

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: SH-60F MODIFICATION TITLE: HIGH STRENGTH SONAR CABLE SH-60F (OSIP 017-05)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 3 Months

CONTRACT DATES: FY 2006 Jun 06 FY 2007 Oct-06 FY 2008 FY 2009

DELIVERY DATE: FY 2006 Sep 06 FY 2007 Jan 07 FY 2008 FY 2009

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (35) kits			10	0.04	25	0.1				
FY 2006 (35) kits					35	0.1				
FY 2007 () kits										
FY 2008 () kits										
FY 2009 () kits										
FY 2010 () kits										
FY 2011 () kits										
FY 2012 () kits										
FY 2013 () kits										
TO COMPLETE										
Total	0	0.0	10	0.04	60	0.2	0	0.0	0	0.0

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In					10	12	15	15	18								
Out						10	12	15	15	18							

Exhibit P-3a

MODIFICATION TITLE: MH-60R ARMED BLOCK I UPGRADE(OSIP 001-06)

MODELS OF SYSTEMS AFFECTED: MH-60R TYPE MODIFICATION: OPERATIONAL ENHANCEMENT

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, KUBAND, IMDS, AVC, ACOUSTIC PROCESSOR, and LINK-16. Global Positioning System (GPS) upgrade incldues 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. Current GPS retrofit plan reflects: (5) LRIP I,(4) LRIP II, and (6) LRIP III MH-60R aircraft. 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 Tactical Common Data Link (TCDL), now KUBAND, will support. KUBAND is an update to the current C-Band Hawklink that allows for an increase in bandwidth with the ability to transfer additional 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, KUBAND 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. Sonar Transducer Receiver (ST/R) will modified to solve obsolescence issues; ST/R is "O" Level install.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: SAASM Joint Common System (JCS) Instruction CDCSI 6140.01, issued 15 November 1998, mandates that all Precise Position Systems (i.e. Global Positioning System (GPS) used on the MH-60R) users field SAASM-based user equipment and use black keys after 01 October 2002.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E										
PROCUREMENT										
INSTALLATION KITS										
ACOUSTICS PROCESSOR TI							7	5.3	11	8.3
AVC KITS							4	2.4	3	1.9
GPS SAASM KITS			2	0.2	2	0.2	12	1.1	10	0.3
IMDS KITS					2	0.3	2	0.3	3	0.5
KUBAND KITS									6	5.8
LINK-16 KITS			4	3.0	2	1.5	3	3.1		
SONAR TRANSDUCER RECEIVER (ST/R)							20	2.4	21	2.4
INSTALLATION KITS N/R								7.6		
INSTALL EQUIPMENT										
INSTALL EQUIPMENT N/R										
ECO										
ROMEO MISSION SYSTEMS								0.1		1.6
DATA										
TRAINING EQUIP										
SUPPORT EQUIP										
ILS						1.0		0.3		0.5
OTHER SUPPORT										
INTERIM CONTRACTOR SUPPORT										
INSTALLATION COST			3	1.2	6	1.8	24	2.1	29	2.2
TOTAL PROCUREMENT			9	4.3	12	4.9	72	24.7	83	23.4

Totals may not add due to rounding

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: MH-60R MODIFICATION TITLE: MH-60R BLOCK 1 - GPS SAASM/KUBAND/IMDS/AVC KITS (OSIP 001-06)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2006 Apr 06 FY 2007 Dec-06 FY 2008 Dec-07 FY 2009 Dec-08

DELIVERY DATE: FY 2006 Oct 06 FY 2007 Jun 07 FY 2008 Jun 08 FY 2009 Jun 09

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS () kits										
FY 2006 (2) kits					2	0.4				
FY 2007 (4) kits					1	0.2	3	0.1		
FY 2008 (18) kits							18	0.8		
FY 2009 (22) kits									22	1.1
Total	0	0.0	0	0.0	3	0.6	21	0.9	22	1.1

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In						1	1		1	1	2	9	9			11	11
Out						1	1		1	1	2	9	9			11	11

Note: Kits deliver June 2007, however installation will begin in July 2007.

Exhibit P-3a

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

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 4 Months PRODUCTION LEADTIME: 10 Months

CONTRACT DATES: FY 2006 FY 2007 FY 2008 Feb-08 FY 2009 Feb-09

DELIVERY DATE: FY 2006 FY 2007 FY 2008 Dec 08 FY 2009 Dec 09

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS () kits												
FY 2006 () kits												
FY 2007 () kits												
FY 2008 (7) kits									7	1.1		
FY 2009 (11) kits											11	1.7
Total	0	0.0	0	0.0	0	0.0	0	0.0	7	1.1	11	1.7

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In															2	2	3
Out															2	2	3

Note: Installation kits will deliver in December; however, installations will begin in January

Exhibit P-3a

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

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 9 Months

CONTRACT DATES: FY 2006 Dec 05 FY 2007 Dec-06 FY 2008 Dec-07 FY 2009

DELIVERY DATE: FY 2006 Sep 06 FY 2007 Sep 07 FY 2008 Sep 08 FY 2009

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS () kits										
FY 2006 (4) kits			3	1.2	1	0.4				
FY 2007 (2) kits					2	0.8				
FY 2008 (3) kits							3	1.2		
FY 2009 () kits										
Total	0	0.0	3	1.2	3	1.2	3	1.2	0	0.0

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In					3	1			2				3				
Out						3	1			2				3			

Exhibit P-3a

MODIFICATION TITLE: H-60 DRUG INTERDICTION FLIR(OSIP 018-06)

MODELS OF SYSTEMS AFFECTED: SH-60B TYPE MODIFICATION: OPERATIONAL ENHANCEMENT

DESCRIPTION / JUSTIFICATION: Forward Looking Infrared (FLIR) is used to monitor night time activity. Items under OSIP 18-06 are for SH-60B Drug Interdiction aircraft. Asset will be procured, modified and released to Joint Interagency Task Force South (JTIFS).

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: No development required.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E										
PROCUREMENT										
INSTALLATION KITS										
INSTALLATION KITS N/R										
INSTALL EQUIPMENT										
FLIR			1	1.3						
INSTALL EQUIPMENT N/R				0.3						
ECO										
DATA										
TRAINING EQUIP										
SUPPORT EQUIP										
ILS										
OTHER SUPPORT				0.1						
INTERIM CONTRACTOR SUPPORT										
TOTAL PROCUREMENT			1	1.7						

Exhibit P-3a

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

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

DESCRIPTION / JUSTIFICATION: Extended Maritime Interdiction Operations (EMIO) by Helicopter Visit, Board, Search, and Seizure (HVBSS) tactics require Naval Helicopters be compatible with rapid insertion of Special Warfare forces.This OSIP adds hardpoints to the overhead cabin structure for improved special warfare seating and cabin configurations for (72) SH-60B aircraft by Depot level modification. Modification by O-level to access existing aircraft hardpoints for mounting of Fastrope Rapid Insertion Extraction System (FRIES) hardware will also be conducted for all (145) SH-60B aircraft. Fast Tactical imaging systems kits (20), 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 (180) M240 7.62mm machine gun kits, replacing aging M-60D gun systems. Additional area suppression close air support improvements include (22) GAU-17 weapon kits and (22) 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 (42) aiming laser systems to kit with each weapon.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: GAU-17/A, M-240D, Fast Tactical Imaging (FTI) SYSTEMS, IZLID-200 aiming laser, FRIES 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.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E										
PROCUREMENT										
INSTALLATION KITS										
GAU-17 CABIN MOD (HH-60H)					22	0.7				
NSW CONFIG CABIN MOD (SH-60B)					72	0.7				
INSTALLATION KITS N/R						0.2				
INSTALL EQUIPMENT										
AIMING LASER (IZLID-200) SH-60B,HH-60H					42	*				
FRIES (SH-60B)					145	*				
GAU-17 (HH-60H)					22	0.6				
M240 (SH-60B)					20	0.3	85	1.0	75	1.0
TACTICAL IMAGING (SH-60B, HH-60H)					20	0.2				
INSTALL EQUIPMENT N/R										
ECO										
HVBSS ECO						0.1				
DATA						0.2				
TRAINING EQUIP										
SUPPORT EQUIP										
ILS						0.1		0.1		0.1
OTHER SUPPORT						0.2		0.1		0.1
INTERIM CONTRACTOR SUPPORT										
INSTALLATION COST					94	0.7				
TOTAL PROCUREMENT					437	4.0	85	1.2	75	1.2

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

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: SH-60B, HH-60H

MODIFICATION TITLE: CONF CABIN MOD/GAU-17 CABIN MOD OSIP 08-07

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 1 Months

PRODUCTION LEADTIME: 3 Months

CONTRACT DATES: FY 2006 ____ FY 2007 Nov-06 FY 2008 ____ FY 2009 ____

DELIVERY DATE: FY 2006 ____ FY 2007 Feb 07 FY 2008 ____ FY 2009 ____

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS () kits										
FY 2006 () kits										
FY 2007 (94) kits					94	0.7				
FY 2008 () kits										
FY 2009 () kits										
Total	0	0.0	0	0.0	94	0.7	0	0.0	0	0.0

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In							31	31	32								
Out							31	31	32								

Exhibit P-3a

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 AMCM Block 2B (AMNS & OASIS Only) & 3B P3I effort includes: Link-16, DALS, SASSM and GAS-1 airframe provisions into 69 Block 2A aircraft; Armed Helo Block 3A weapons airframe provision into 31 Block 2A aircraft and fixed forward weapons/rockets provisions into 121 Block 2A aircraft. Block 3B capabilities will be incorporated into 69 aircraft.
OSIP also provides retrofit of Active Vibration Control (AVC) in 127 MH-60S aircraft and Integrated Mechanical Diagnostics (IMDS) in 119 MH-60S aircraft to achieve a common configuration for vibration and IMD. IMD 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.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E										
PROCUREMENT										
INSTALLATION KITS										
AVC					2	0.2	17	3.7	18	4.0
Block 2B					1	0.2	8	1.4	9	1.6
Block 3A					1	0.5	8	4.3	9	5.0
Block 3A Rockets										
Block 3B					1	0.3	8	2.1	9	2.4
IMDS					2	0.4	17	3.8	18	4.1
INSTALLATION KITS N/R						4.6				
INSTALL EQUIPMENT										
Rockets										
INSTALL EQUIPMENT N/R										
ECO										
DATA								1.1		0.1
TRAINING EQUIP										
SUPPORT EQUIP										
ILS								0.1		0.1
OTHER SUPPORT								2.0		0.5
INTERIM CONTRACTOR SUPPORT										
INSTALLATION COST							6	2.3	50	9.8
TOTAL PROCUREMENT					7	6.2	64	20.7	113	27.4

Totals may not add due to rounding

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: MH-60S MODIFICATION TITLE: BLOCK 3A A-KIT (OSIP 009-07)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 11 Months

CONTRACT DATES: FY 2006 FY 2007 Jul-07 FY 2008 Dec-07 FY 2009 Dec-08

DELIVERY DATE: FY 2006 FY 2007 Jun 08 FY 2008 Nov 08 FY 2009 Nov 09

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS () kits										
FY 2006 () kits										
FY 2007 (1) kits							1	0.7		
FY 2008 (8) kits									8	2.8
FY 2009 (9) kits										
Total	0	0.0	0	0.0	0	0.0	1	0.7	8	2.8

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In													1	2	2	2	2
Out														1	2	2	2

Note: Installation kits deliver late June 2008, however, installations will begin in July 2008.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: MH-60S MODIFICATION TITLE: BLOCK 2B and 3B A-KITS (OSIP 009-07)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 11 Months

CONTRACT DATES: FY 2006 FY 2007 Jul-07 FY 2008 Dec-07 FY 2009 Dec-08

DELIVERY DATE: FY 2006 FY 2007 Jun 08 FY 2008 Nov 08 FY 2009 Nov 09

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS () kits										
FY 2006 () kits										
FY 2007 (1) kits							1	0.8		
FY 2008 (8) kits									8	3.3
FY 2009 (9) kits										
Total	0	0.0	0	0.0	0	0.0	1	0.8	8	3.3

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In													1	2	2	2	2
Out														2	2	2	2

Note: Installation kits deliver late June 2008, however, installations will begin in July 2008.

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: 2 Months PRODUCTION LEADTIME: 11 Months

CONTRACT DATES: FY 2006 FY 2007 Jul-07 FY 2008 Dec-07 FY 2009 Dec-08

DELIVERY DATE: FY 2006 FY 2007 Jun 08 FY 2008 Nov 08 FY 2009 Nov 09

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS () kits										
FY 2006 () kits										
FY 2007 (2) kits							2	0.2		
FY 2008 (17) kits									17	1.0
FY 2009 (18) kits										
Total	0	0.0	0	0.0	0	0.0	2	0.2	17	1.0

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In													2	4	4	4	5
Out													2	4	4	4	5

Note: Installation kits deliver late June 2008, however, installations will begin in July 2008.

Totals may not add due to rounding

Exhibit P-3a

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

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 11 Months

CONTRACT DATES: FY 2006 FY 2007 Jul-07 FY 2008 Dec-07 FY 2009 Dec-08

DELIVERY DATE: FY 2006 FY 2007 Jun 08 FY 2008 Nov 08 FY 2009 Nov 09

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS () kits										
FY 2006 () kits										
FY 2007 (2) kits							2	0.6		
FY 2008 (17) kits									17	2.7
FY 2009 (18) kits										
Total	0	0.0	0	0.0	0	0.0	2	0.6	17	2.7

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In													2	4	4	4	5
Out													2	2	4	4	4

Note: Installation kits deliver late June 2008, however, installations will begin in July 2008.

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2007	
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy / APN5 Aircraft Modifications**							P-1 ITEM NOMENCLATURE **053200, H-1 SERIES**					
Program Element for Code B Items:							Other Related Program Elements					
	PRIOR YEARS	ID Code	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
QUANTITY												
COST (In Millions)	136.7	A	22.7	4.4	6.5	8.2	8.4	8.5	8.7	8.8	65.0	277.9

DESCRIPTION: There are 84 H-1N's in the UH configuration and 11 H-1N's in the HH configuration for a total of 95. The UH-1N provides command and control and combat assault support under day/night and adverse weather conditions. Additional UH-1N missions include special operations support, controls/coordination/guidance of supporting fire and aeromedical evacuation. The overall goal of the modifications budgeted in FY2008 is to eliminate safety hazards, remedy obsolescence and maintain significant mission capability until the planned retirement date. The HH configured aircraft provide local civilian and military search and rescue support, as well as augmenting Department of Homeland Security resources. Additionally, the UH-1Y will upgrade the current Navigational Thermal Imaging System (NTIS) starting in FY09.

OSIP No. / DESCRIPTION	PRIOR YEARS	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
031-92 UH-1 NTIS	99.9	21.8	4.2	6.3	8.0	8.1	8.3	8.4	8.5	65.0	238.9
018-98 H-1N SAFETY UPGRADES	29.8	0.9	0.2	0.2	0.2	0.3	0.3	0.3	0.3		32.4
TOTAL	129.7	22.7	4.4	6.5	8.2	8.4	8.5	8.7	8.8	65.0	271.3

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

Totals may not add due to rounding
DD Form 2454, Jun 86

Exhibit P-3a

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: Operational Requirements Document (ORD) AAS-51 states that the UH-1N requires a Navigational Thermal Imaging System (NTIS) to provide the U.S. Marine Corps with a night/day warfighting capability in the NOE/smoke/dust/haze environment. This capability reduces the safety risk by allowing the aircrew to see and avoid flight obstructions and locate targets that might not be visible with the naked eye or night vision goggles. The AN/AAQ-22 is a low cost, stabilized system which provides the required capability in the form of high quality real time imagery displayed into the UH-1N aircraft cockpit. The NTIS System is comprised of 5 components; Turret FLIR Unit (TFU), Central Electronics Units (CEU), Hand Control Unit (HCU), Thermal Image Recorder (TIR), and the Video Display Unit (VDU). The NTIS is installed only in the UH-1N aircraft by AFC-278. The system also includes a Laser Range Finder (LRF) to determine the range to landmarks, targets, and tactical points of interest. Beginning FY97, the NTIS was upgraded from 1st generation to 3rd generation Forward Looking Infrared (FLIR) technology. The COTS Star SAFIRE modification consisted of a 3-5 micron focal plane array detector, an eye safe LRF and new optics. Additionally, the NTIS will be upgraded with a new Thermal Imaging Recorder (TIR) with mount and a Flat Panel Display replacement for the VDU due to a fire hazard. Additional modifications to the NTIS are being incorporated in order to add a COTS Laser Designator/Laser Pointer capability (BRITE Star I/II). Laser designator capability is a threshold ORD requirement. BRITE Star I/II "P" Kits are "O" level installed mission ktis. Additional reliability and maintenance upgrades to the NTIS components and VDU will also be incorporated. BRITE Star Block II integration in to the UH-1Y will start in FY08.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: The NTIS is a commercial off-the-shelf (COTS) item. MIL-STD-810C testing is complete. DT-III testing was completed in the fourth quarter FY94 and FOT&E was completed in the second quarter of FY96. Additional testing occurred during fourth quarter FY98 for NTIS upgrade. The completion of COTS post Milestone II testing of Laser Designator (BRITE Star) completed in FY03. Initial fielding of BRITE Star I FY04 and continues in FY06. BRITE Star II development completes in FY06/FY07, Test FY06 fielding schedule for FY07/FY08.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E										
PROCUREMENT										
INSTALLATION KITS										
AFC-278 A KIT (CONTRACTOR)	105	2.6								
AFC-334 TIR	105	0.1								
AFC-364 (Brite Star)	99	0.4								
INSTALLATION KITS N/R		3.4				0.2		0.4		0.2
INSTALL EQUIPMENT										
BRITE STAR I	32	19.1	11	9.4						
BRITE STAR II			10	9.0	2	2.4	4	4.4	5	4.9
FLAT PANEL DISPLAY	90	0.8	1	0.1						
NTIS SYSTEM (GFE)	84	29.7								
NTIS UPGRADE	90	29.3								
TIR (GFE)	107	1.0								
INSTALL EQUIPMENT N/R		0.6								
ECO										
DATA		0.5				0.1				0.2
TRAINING EQUIP	5	0.7	1	1.0						
SUPPORT EQUIP	3	1.1	2	*	4	0.3	10	0.2		
ILS		0.6								
OTHER SUPPORT		6.7		2.3		1.2		1.2		2.7
INTERIM CONTRACTOR SUPPORT										
INSTALLATION COST	196	3.5								
TOTAL PROCUREMENT	916	99.9	25	21.8	6	4.2	14	6.3	5	8.0

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

NOTE: FY06 includes a $.5M Congressional Add and $14.2M Title IX (GWOT) for BRITE Star. And $.1M Title IX (GWOT) for Flat Panel Display.

Exhibit P-3a

MODIFICATION TITLE: H-1N SAFETY UPGRADES(OSIP 018-98)

MODELS OF SYSTEMS AFFECTED: HH-1N/UH-1N TYPE MODIFICATION: SAFETY

DESCRIPTION / JUSTIFICATION: Operational Requirements Document (ORD) AAS-51 requires that the following safety shortfalls be corrected. The HH/UH-1N helicopter fleet was designed in the 1960's, introduced in the 1970's and are projected to remain in the Department of the Navy inventory until FY2020. This program is designed to address safety issues, such as mishap casual factors associated with maintaining an older type model series aricraft. This safety upgrade program replaced the Tail Drive System (TDS). A COTS/NDI Improved Torque Indicator System will be added to provide a digital torque display to the aircrew to improve low power margin situational awareness. Tailboom Strake technology will be investigated to improve performance and reduce tailboom fatigue. Additionally, the overspeed Aural Alert Unit (AAU) will be modified. A modifcation to the CH-8500 Vibration Analysis Support Equipment (VASE) will also be needed. A COTS replacement Rotor Brake Quill (RBQ) assembly, component failures due to an obsolete design pose a significant risk to all aircrew, and Low Maintenance Battery (LMB) will be incorporated into all HH/UH-1N aircraft. Included in this OSIP is the requirement to correct the safety deficiencies of the Defensive Amament System (DAS); machine guns, carriages, mounts, and associated equipment. Improvements and enhancements to airframe Night Vision Goggle (NVG) compatability along with communications equipment for external agency interaction during the Global War on Terrorism. A/C fatigue life issues including movement of critical controls, Heads Up Display (HUD's) CDNU and GPS Upgrades (CCP) (radio select, etc.). Implementation of improved armor technolgies including, but not limited to, transparent armor and armored panels, damage tolerant windscreen tech's, reduce maintenance efforts (such as scratch resistant covers, damaged tolerant windscreens and tear-a-way covers, etc.) and mid-air collision avoidance systems will also be accomplished and crew weapons mounts.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: These upgrades are propietary, non-developmental items used in other BHTI produced military and FAA certified commercial helicopters.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E										
PROCUREMENT										
INSTALLATION KITS										
A-1 Kits (TDS)	131	6.3								
Aural Alert Unit (AAU) Kits	103									
GAU-17 Gun Control Unit	79	1.4								
IDAS Mounts	110	0.7								
M-16 Rifle Mounting Provision			92	0.1						
M240 Refielding (mount & ejection tube)	210	0.1								
Rotor Brake Quill	136	1.6								
Smart Torque Indicator	268	3.3								
Tailboom Strakes	119	4.0								
Tearaway Windscreen Cover			91	0.6						
INSTALLATION KITS N/R		1.1								
INSTALL EQUIPMENT										
Aural Alert Unit (AAU) Equipment	103	0.6								
INSTALL EQUIPMENT N/R		0.2								
ECO										
Engineering Change Orders		*								
DATA		0.7								
TRAINING EQUIP	4	1.3								
SUPPORT EQUIP	100	1.0								
ILS		1.0								
OTHER SUPPORT		5.8		0.2		0.2		0.2		0.2
INTERIM CONTRACTOR SUPPORT										
INSTALLATION COST	229	0.8								
TOTAL PROCUREMENT	1,592	29.8	183	.9		.2		.2		.2

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

NOTE: FY06 includes a $.1M for M-16 Rifle Mounting Provision Title IX (GWOT) for and $.6M Title IX (GWOT) for Tearaway Windscreen Cover.
Aural Alert Unit Installation Kit Cost included in Aural Alert Unit Installation Equipment cost.

Totals may not add due to rounding

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2007	
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy / APN5 Aircraft Modifications**							P-1 ITEM NOMENCLATURE **053700, EP-3 SERIES**					
Program Element for Code B Items:							Other Related Program Elements					
	PRIOR YEARS	ID Code	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
QUANTITY												
COST (In Millions)	586.1	A	43.5	60.8	46.9	73.1	196.6	104.8	107.0	79.3	70.4	1368.3

DESCRIPTION: This line item funds modifications to the EP-3E aircraft. The EP-3E is a land based, long range aircraft, with electronic intercept devices for detection and tracking of enemy RADARs and radios.

The 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 2 kit provides for improved information fusion/decision-making capabilities. Spiral 3 procurement begins in FY10 with Low Band Communication System Upgrades, Environmental Control System (ECS) Upgrades and the replacement of aging and obsolescence aircraft antenna arrays. FY2007-FY2013 includes ECO funding to replace subsystem obsolescence to ensure EP-3E viability until aircraft recapitalization. FY2010-FY2013 continues funding of the Quick Response Capabilities (QRCs) ability to respond to emerging threats. FY09-FY10 procures capabilities to ensure EP-3E relevance beyond FY17 and procures follow-on capabilities to be migrated to the recap platform.

Research and Development is funded with National Security Agency (NSA) Military Intelligence Program (MIP) funds. This OSIP provides the procurement tail for RDT&E funds from the Navy's Advanced Signal Recognition line (PE 0305206N). The NSA RDT&E line for the Navy Airborne Sensor System Improvements funds sensor improvements with application for the EP-3E. MIP RDT&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 PAA inventory is 12 with a BAA inventory of 4 for a total of 16 aircraft with the completion of OSIP 29-00. Funds budgeted in FY2008-FY2013 are to continue Joint Airborne SIGINT Architecture (JASA) Modification Common Configuration Program (JMOD). The EP-3E has an average service life of 29.5 years. The EP-3E service life will be managed through Special Structural Inspection - Kits (SSI-Ks) in the P3 Series Modification program (OSIP 005-05) and QRC/ECO/Obsolescence ECP funding in this OSIP.

OSIP No. / DESCRIPTION	PRIOR YEARS	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
011-01 JSAF MODIFICATION (JMOD)	185.9	43.5	60.8	46.9	59.9	94.7	104.8	107.0	79.3	70.4	968.1
007-09 EP-3E Recapitalization Capabilities Migration					13.1	101.9					115.0
TOTAL	185.9	43.5	60.8	46.9	73.1	196.6	104.8	107.0	79.3	70.4	1083.1

Totals may not add due to rounding
DD Form 2454, Jun 86

Exhibit P-3a

MODIFICATION TITLE: JSAF MODIFICATION (JMOD)(OSIP 011-01)

MODELS OF SYSTEMS AFFECTED: EP-3E TYPE MODIFICATION: Operational Improvement/Modernization

DESCRIPTION / JUSTIFICATION: The EP-3E JASA Modification (JMOD) Program began as an upgrade to the capabilities of the Sensor System Improvement Program (SSIP) configuration of the EP-3E. This OSIP responds to Operational Requirement Document (ORD) #571-78-01 and the CAPSTONE ORD (CAF-002-88). JMOD was designed as an evolutionary acquisition program consisting of three block mods. MOD 1 updated the EP-3E infrastructure, improved auto-ESM with the Story Finder system, incorporated Joint Signal Processor (JSP), incorporated SSIP corrections, and incorporated Quick Response Capabilities (QRC) (including the SINCGAR upgrade and IR Strobes modifications) into JMOD. MOD 2 was planned to incorporate a low band capability which improves special collection capability and add the Common Data Link (CDL) allowing the EP-3E to serve as a network-centric airborne SIGINT collection element capable of sharing data with ground, air, and ship-based operators. MOD 3 would have incorporated precision targeting. The Baseline Update to MOD 1 was required to ensure the JMOD TKI aircraft had the same baseline configuration and capabilities as SSIP and QRC fleet assets. The twelve EP-3E aircraft (PAA) will be managed through Special Structural Inspections (SSI-Ks) beyond JMOD Baseline Full Operational Capability (FOC).

Beginning in FY03 and continuing through FY07, the EP-3E platform received funding for COMINT/ELINT upgrades. The FY05-FY07 COMINT/ELINT upgrades funding has been incorporated into the JMOD Baseline.

In FY05, the JMOD Baseline was restructured from the original JMOD program that brings all EP-3E platforms into a single configuration (JMOD Common Configuration (JCC)) on an accelerated timetable. JCC Baseline incorporates 60% of JMOD 1 components into the existing EP-3E backbone and accelerates critical elements of JMOD 2 and 3 via spirals. JMOD Baseline also includes various Quick Reaction Capabilities and OEF/OIF installs and addresses mission avionics obsolescence. This OSIP was restructured to fund the acceleration of JMOD 2 and JMOD 3 capabilities by three years by incorporating their capabilities into the ForceNet and Sea Strike spirals. ForceNet capabilities were procured via Spiral 1 in FY05 and FY06. Sea Strike capabilities were procured via Spiral 2 in FY06 and continuing in FY07. The final Spiral 2 kit will be procured in FY10. FY04 funding procured existing backbone required to bring the five conversion aircraft to the configuration necessary to receive JMOD Baseline. This OSIP addresses a PAA of 12 EP-3E aircraft. The QRC funds in FY09 through FY11 address mission avionics system obsolescence and emerging requirements from national and theater commanders in response to rapidly evolving Global War On Terrorism (GWOT) threats.

In FY06 the JCC program was further restructured due to delays in the Aerial Common Sensor (ACS) recapitalization program. The restructure added anobsolescence evolution and a JCC Spiral 3 upgrade to maintain EP-3E mission system viability until recapitalization platform can be fielded (est. 2017 IOC, 2019 FOC). This funding supports the requiredprocurement of the restructured JCC program. This program procures Low Rate Initial Production (LRIP) Spiral 2 in FY08 with full rate procurement to start in FY09. Spiral 3 procurement includes signalexploitation, low-band direction finding, Remote Tuning Receivers, Integrated Information Operations (I/O) and Environment Control System (ECS) upgrades. Low Rate Initial Production (LRIP) for Spiral 3 in FY10 with full rate procurement to start in FY11. Obsolescence, Quick Response Capabilities (QRCs) and technical refresh efforts will be accomplished in conjunction with the above JCC Spiral upgrades to sustain EP-3E capabilities and viability until recapitalization/replacement.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Increment 1 (the JMOD baseline configuration) Milestone III decision occurred 4th Qtr FY04 based on completion of OT, demonstration of Key Performance Parameters (KPP's) and a 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 award scheduled for the 3rd Qtr of FY06. Spiral 2 Engineering Development efforts are underway with its associated LRIP decision planned for 4th Qtr in FY07 and associated contract award planned for the 1st Qtr in FY08.. Spiral 2 OT is planned for 3rd Qtr of FY08 with its associated Full Rate Production decision in the 4th Qtr of FY08 and associated contract award planned for the 1st Qtr of FY09. Spiral 3 efforts will begin with LRIP procurement in FY2010.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
BLOCK MOD 1	3	4.0																				
COMINT/ELINT UPGRADES		1.9																				
IR STROBES MOD	10	0.2																				
JMOD Common	9	9.0																				
JMOD Common SP1			6	4.8																		
JMOD Common SP2							4	0.2	8	0.5												
JMOD Common SP3																						
RFD Upgrades	4	0.4																				
SINCGARS UPGRADE	16	0.4																				
VME TUNER	2	1.1																				
INSTALLATION KITS N/R		4.7		1.1		6.3		4.5		13.2												
INSTALL EQUIPMENT																						
BLOCK MOD 1	3	11.1																				
COMINT/ELINT UPGRADES		7.2																				
DERF SIGINT		14.2																				
IR STROBES MOD	10	0.1																				
JMOD 1 Upgrades	5	10.8																				
JMOD Common	9	15.5																				
JMOD Common SP1			6	25.0																		
JMOD Common SP2							4	0.3	8	0.6												
JMOD Common SP3																						
QRC																						
RFD Upgrades	9	4.4																				
SINCGARS UPGRADE	16	0.6																				
Upgrade	16	3.4																				
VME TUNER	6	10.0																				
INSTALL EQUIPMENT N/R		26.9				3.1		7.6		10.3												
ECO																						
JCC Obsolescence						14.8		12.0		10.9												
DATA		3.8		0.2		1.4		1.4		1.4												
TRAINING EQUIP		4.8				1.4		3.0		1.5												
SUPPORT EQUIP		1.8				0.2		0.2		0.2												
ILS		9.3		2.7		2.1		4.2		2.3												
OTHER SUPPORT		34.0		6.9		5.7		8.2		7.5												
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	7	6.4	2	2.7	6	25.8	4	5.2	8	11.6												
TOTAL PROCUREMENT	119	185.9	6	43.5		60.8	4	46.9	8	59.9												

1. Two JMOD 1 kits were funded under the Conversion OSIP (29-00) and one JMOD 1 kit was funded as a R&D TKI.
2. FY10 through FY13 QRC quantities vary due to emergent threat requirements.
3. FY07 through FY13 Installation cost include various ECO that are not part of JCC Spiral install costs.
4. FY05 JMOD Common quantity of 4 shown are JCC Spiral 1 LRIP assets procured under JMOD Common line.
5. FY09 NRE increase for significant SP3 tooling/setup of install kits and equipment manufacturing.
6. FY10 increase to support logistic, training, and support equipment for SP3 procurement.

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 1

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Commercial Contractor Installation

ADMINISTRATIVE LEADTIME: 9 Months

PRODUCTION LEADTIME: 5 Months

CONTRACT DATES: FY 2006: 6/06 FY 2007: FY 2008: FY 2009:

DELIVERY DATE: FY 2006: 11/06 - *** FY 2007: FY 2008: FY 2009:

($ in Millions)

Cost:	Prior years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY2005 & PY (13) kits */**	8	4.6	2	2.6																		
FY 2006 (6) kits					6	19.7																
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
FY 2012 ( ) kits																						
FY 2013 ( ) kits																						
To Complete ( ) kits																						
TOTAL	8	4.6	2	2.6	6	19.7																

* 1 JMOD 1 kit was funded as a R&D TKI.

** Three (3) JMOD kits installed into Conversion aircraft (OSIP 29-00). Installation efforts for FY04 Congressional Plus Ups will be concurrent with the JMOD Baseline installations or Special Structural Inspections (SSIs).

*** Installation induction and duration varies dependent on concurrent PDM/SSI sustainment modification efforts.

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	8			2			2	2	2																
Out	6				2		2		2	2	2														

	FY 2012				FY 2013				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										
Out										

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 2

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Commercial Contractor Installation

ADMINISTRATIVE LEADTIME: 3 Months

PRODUCTION LEADTIME: 3 Months

CONTRACT DATES: FY 2006: ____ FY 2007: ____ FY 2008: 12/07 FY 2009: 12/08

DELIVERY DATE: FY 2006: ____ FY 2007: ____ FY 2008: 03/08 FY 2009: 03/09

($ in Millions)

Cost:	Prior years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 (4) kits							4	1.5														
FY 2009 (8) kits									8	3.0												
FY 2010 (4) kits											4	1.5										
FY 2011 ( ) kits																						
FY 2012 ( ) kits																						
FY 2013 ( ) kits																						
To Complete ( ) kits																						
TOTAL							4	1.5	8	3.0	4	1.5										

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In												2	2			4	4								
Out												2	2			4	4								

	FY 2012				FY 2013				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 Joint Airborne SIGINT Architecture (JASA) Modification Program (JMOD) (OSIP 11-01) ECO (Obsolescence ECPs)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Navy Field Mod Team

ADMINISTRATIVE LEADTIME: 2 Months

PRODUCTION LEADTIME: 2 Months

CONTRACT DATES: FY 2006: ____ FY 2007: 12/06 FY 2008: 12/07 FY 2009: 12/08

DELIVERY DATE: FY 2006: ____ FY 2007: 02/07 FY 2008: 02/08 FY 2009: 02/09

($ in Millions)

Cost:	Prior years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits						6.2																
FY 2008 ( ) kits								3.8														
FY 2009 ( ) kits										8.6												
FY 2010 ( ) kits																						
FY 2011 ( ) kits																						
FY 2012 ( ) kits																						
FY 2013 ( ) kits																						
To Complete ( ) kits																						
TOTAL						6.2		3.8		8.6												

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In																									
Out																									

	FY 2012				FY 2013				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										
Out										

Note: FY07 through FY13 ECO quantities vary due to emergent threat requirements.

Exhibit P-3a

MODIFICATION TITLE: EP-3E Recapitalization Capabilities Migration (OSIP 007-09)

MODELS OF SYSTEMS AFFECTED: EP-3E TYPE MODIFICATION: Operational Improvement/Modernization

DESCRIPTION / JUSTIFICATION: Funding was added in FY09-FY10 to procure OSD directed EP-3E capabilities to ensure mission relevance beyond FY17 that can be migrated to the recapitlization platform.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: The EP-3E sustainment ECO's will commence to ensure mission system viability beyond FY17. Procurement of ECO's will follow in FY09 and FY10.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	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																						
EP-3E Recap Capabilities										13.1												
DATA																						
TRAINING EQUIP																						
SUPPORT EQUIP																						
ILS																						
OTHER SUPPORT																						
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST																						
TOTAL PROCUREMENT										13.1												

Totals may not add due to rounding

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2007	
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy / APN5 Aircraft Modifications**							P-1 ITEM NOMENCLATURE **053800, P-3 SERIES**					
Program Element for Code B Items:							Other Related Program Elements					
	PRIOR YEARS	ID Code	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
QUANTITY												
COST (In Millions)	2581.7	A	193.5	263.9	262.6	289.9	233.1	135.3	125.5	113.9	152.2	4351.1

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.

As a direct result of the 7 June 2003 Maritime Patrol and Reconnaissance (MPRA) offsite, the P-3 Sustainment Bridge was approved by the CNO. This resulted in P-3C inventory levels being reduced from 227 to 148. The foundational element of this bridge was optimizing the P-3 fleet by investing manpower, AVDLR and Flying Hour Program (FHP) savings into the resulting smaller P-3 force to produce a better productive ratio of aircraft. This investment allows the P-3 force to be smaller, more ready and more capable. A key investment area is P-3 Mod Programs. Funding for these programs support a multitude of obsolescence, structural, sustainment, training/logistics and warfighting capability upgrades that are key in keeping the P-3 platform relevant through Multi-mission Maritime Aircraft (MMA) Initial Operational Capability (IOC) of 2013 and until the projected MMA Full Operational Capability (FOC) of 2019. P-3 aircraft mods funded under the APN line have heavily supported recent and current Operation Enduring Freedom (OEF), Operation Iraqi Freedom (OIF) and Global War on Terrorism (GWOT) operations. Without key technology upgrades and aggressive obsolescence management, P-3 aircraft will be unable to meet Fleet Response Plan (FRP) requirements, leaving key Seapower 21 capabilities in support of the Combatant Commanders at risk. This P-3 Sustainment Bridge provides a roadmap through MMA FOC, ensuring sufficient P-3 assets for Fleet and Combatant Commanders to fulfill operational and training/readiness requirements.

The overall goal of the modifications budgeted in FY2008 is to continue mission system sustainment, including: USQ-78 improvements (part of Update III), comm/nav/surveillance weapon system improvements, upgrades/modifications to airframe components/systems, safety improvements and key system obsolescence upgrades. The specific modifications budgeted and programmed are:

OSIP No. / DESCRIPTION	PRIOR YEARS	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	COMPLETE	TOTAL
080-84 UPDT III BLK UPGRADE	1101.3	38.9	54.1	29.6	18.6	19.2	3.2	18.5	19.7	31.5	1334.6
053-85 CRITICAL SYSTEMS IMPROVEMENTS	35.3	2.2	0.9	0.4	0.4	0.4	0.4	0.4	0.4		40.8
029-94 ASUW IMPROV. PROG.	1203.9	33.1	33.7	11.3	30.8	31.8	32.4	29.7	19.8		1426.5
013-01 CNS-ATM	59.1	21.4	20.6	15.4	14.7	13.7	8.0	10.1	4.6	0.5	168.3
004-04 P-3 READINESS IMPROVEMENT	38.8	33.9	43.7	41.8	46.0	39.6	33.3	41.8	47.1	34.5	400.5
005-05 SSI-K	18.0	63.8	108.1	156.3	158.8	104.3	33.5				642.8
005-07 PROJECT K-0416			2.7	2.3	2.4	2.1	2.1	2.1	2.2		15.9
006-08 P-3 MISSION SYSTEMS				5.5	18.2	22.0	22.5	22.9	20.0	85.6	196.7
TOTAL	2456.4	193.5	263.9	262.6	289.9	233.1	135.3	125.5	113.9	152.2	4226.0

NOTE: $62.5M received in FY 2007 Title IX funding.

Exhibit P-3a

MODIFICATION TITLE: UPDT III BLK UPGRDE(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) upgrade funding and with follow-on P-3C ASW Maritime Improvement Program (AMIP) funding.

FY08 thru FY13 objectives of the Update III Block Upgrade Program are to provide improved ASW capability through a series of AMIP Technology Insertions which will: (1) increase digital sonobuoy monitoring capacity and improve acoustic subsystem maintainabilty by replacing the analog ARR-78 sonobuouy 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 on going non-recurring engineering (NRE) solutions to support continuous technology insertions and COTS obsolescence mitigation on a regular cycle via an ARCI Tech Refresh process to the USQ78(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 100 aircraft and 5 trainers to be modified to a common baseline configuration, then continuously upgraded via an ARCI process.

FY-02 SEI Congressional Plus-up provides associated NRE, 8 units, and installs as initial integration of new capability.
FY-02 Congressional Plus-up provides NRE for Acoustic Data Recorder-Digital (ADR-D) input enhancements, a prototype digital model (EDM) and 31 ADR-D upgrade kits.
FY-03 Congressional Plus-up provides associated NRE for 8 units to upgrade and install (ALR-95).
FY-03 Congressional Plus-up provides 10 additional ADR-D kits with some NRE for obsolescence issues.
FY-03 Congressional Plus-up for USQ-78(V) will be used to upgrade existing USQ78(V) hardware for technical refresh and End of Life (EOL) requirements.
FY-04 Congressional Plus-up upgrades the ADR tape transport to a hard drive configuration for reliability and maintainability.
FY-05 Congressional Plus-up upgrades the ADR tape transport to a hard drive configuration for reliability and maintainability.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:
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 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
BLOCK MOD UPGRADE KITS	8	9.9																				
MK-50 KITS	147	4.0																				
PRIOR YEAR KITS	434	72.5																				
USQ-78A KITS	69	12.3	17	4.0	14	2.8																
USQ78 SONO RECEIVER					48	0.9	24	0.5	20	0.4												
INSTALLATION KITS N/R		64.5				2.4		1.0														
INSTALL EQUIPMENT																						
ADR/DRR	81	20.6																				
AN/ASH-33/RDSS	221	24.3																				
BLOCK 1C HARPOON	148	5.1																				
CHRDS	4	0.1																				
COMMON CONFIG EQUIP	36	65.4																				
CP-2044/ASQ UPGRADE (CPU)	121	64.1																				
DASD/DASD DOCKS	250	2.1	34	0.4	28	0.3																
ESEI (ALR-95)		2.9																				
LESPA		19.0																				
PEP	25	6.4																				
PRIOR YEAR EQUIPMENT	1,181	349.7																				
SEI CARDS		2.1																				
SYSTEM CONTROLLER	49	6.0	4	0.5																		
USQ-78 Tech Insertion					105	2.9	30	9.0	22	6.6												
USQ-78A/CHRDS	69	98.1	17	18.2	14	14.6																
USQ-78V PROCESSOR UPGRADE KIT	25	1.3																				
USQ78 SONO RECEIVER UPGRADE					48	12.0	24	6.0	20	5.0												
INSTALL EQUIPMENT N/R		73.6		13.8		14.0		7.9		2.6												
ECO																						
DATA		16.8				0.5		0.5		0.1												
TRAINING EQUIP	43	17.6																				
SUPPORT EQUIP		1.6																				
ILS		3.6																				
OTHER SUPPORT		123.8		2.0		2.6		2.3		1.8												
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	548	33.7	4	0.2	12	1.3	53	2.4	49	2.1												
TOTAL PROCUREMENT	3,459	1,101.3	76	38.9	269	54.1	131	29.6	111	18.6												

Totals may not add due to rounding

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3C

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

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Installation will be accomplished on the SMIP contract

ADMINISTRATIVE LEADTIME: 6 Months

PRODUCTION LEADTIME: 20 Months

CONTRACT DATES: FY 2006: 03/06 FY 2007: 03/07 FY 2008: FY 2009:

DELIVERY DATE: FY 2006: 10/07 FY 2007: 10/08 FY 2008: FY 2009:

($ in Millions)

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY (69) kits	47	2.9	4	.2	12	1.3	6	.7														
FY 2006 (17)							11	1.3	6	.8												
FY 2007 (14) kits									7	.9												
FY 2008 () kits																						
FY 2009 () kits																						
TOTAL	47	2.9	4	.2	12	1.3	17	2.0	13	1.7												

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	47	1	1	1	1	4	3	3	2	6	4	4	3	6	4	3					
Out	47	1	1	1	1	4	3	3	2	6	4	4	3	6	4	3					

	FY 2011				FY 2012				FY 2013				To	
	1	2	3	4	1	2	3	4	1	2	3	4	Complete	TOTAL
In														
Out														

Completions same as inductions; one week effort.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3C

MODIFICATION TITLE: Update III Block Upgrade (OSIP 80-84) SONO RECEIVER

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Installation will be accomplished on-site by contractor field team

ADMINISTRATIVE LEADTIME: 5 Months

PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2006: ____ FY 2007: 02/07 FY 2008: 2/08 FY 2009: 2/09

DELIVERY DATE: FY 2006: ____ FY 2007: 02/08 FY 2008: 2/09 FY 2009: 2/10

($ in Millions)

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY () kits																						
FY 2006 () kits																						
FY 2007 (48) kits							36	.4	12	.1												
FY 2008 (24) kits									24	.2												
FY 2009 (20) kits																						
TOTAL							36	.4	36	.4												

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In											12	12	12	12	8	8	8								
Out											12	12	12	12	8	8	8								

	FY 2012				FY 2013				To	
	1	2	3	4	1	2	3	4	Complete	TOTAL
In										
Out										

Completions same as inductions; one week effort.

Exhibit P-3a

MODIFICATION TITLE: CRITICAL SYSTEMS IMPROVEMENTS(OSIP 053-85)

MODELS OF SYSTEMS AFFECTED: P-3C TYPE MODIFICATION: Readiness

DESCRIPTION / JUSTIFICATION: The purpose of this program is to provide the requisite funding to implant various minor cost effective changes to critical P-3 weapon systems. These changes are essential to the operation of the aircraft and/or it's mission systems, but are not currently being addressed by an existing aircraft modification program. The changes can be either airframe, avionic, or procedures.

SINGLE ARMAMENT CONTROL PANEL (SACP) ECP JAX P3-649: This ECP replaces the existing 9622068 Wing Jettison/Special Weapon Control Box and the A-393 Pilot's Armament Control Box in 228 P-3C aircraft with the PEU-196/A Pilot's Armament Control Box.

KAPTON WIRING REPLACEMENT MOD ECP JAX P3-610: This ECP replaces the Kapton Wiring in the wing trailing edge of P-3C aircraft. The initial program will modify 97 P-3C aircraft.

STRUCTURAL DATA RECORDING SYSTEM (SDRS) ECP SEI 196-1A: The SDRS (ASH-37) CCB was approved in June of 1994 to install the ASH-37 in all P-3C aircraft. The funding to procure and install the kits was provided by OSIP (5-93). The funding for SDRS ended in FY95. The task covered in this OSIP include SDRS Pubs, SDRS data reduction and installation of last 20 kits.

STANDBY ATTITUDE INDICATOR (PEANUT GYRO) ECP BFGAAS ID-1481A/A-25583-48: This ECP modifies the P-3C Standby Attitude Indicator (Peanut Gyro) to operate with a DC power vice an AC power. This modification is planned for 148 P-3C's and 3 trainers.

E-J RECEIVER MOD AN/ALR-66 B(V)3 ECP LITTON 970: The AN/ALR-66B(V)3 ECP upgrades certain components of the AN/ALR-66A(V)3 ESM to improve system performance, including the E-J Amplifier Receivers, CD Amplifier Receivers, Processor Interface and Computer Converter. The effort under this OSIP supports the modification and certain RIM in support of AN/ALR-66 B(V)3 installs on 145 P-3C aircraft, 6 operational trainers and 10 test bench installations.

APS-115 FEEDBALL MODIFICATION ECP CUBIC 2509-02F3: This ECP are liability and performance improvement to the APS-115 radar feedball. The unmodified feedballs are susceptible to burning out which decreased the APS 115 sensitivity (or caused failure) and made the feedball incompatible with the AN/ALR-66 B(V)3 ESM system, which uses the feedball as the center channel receiver. This modification will be installed in all APS-115 equipped aircraft. This modification affects 90 P-3C aircraft.

P-3 PILOT/COPILOT/ PLANE CAPTAIN SEAT MODIFICATION FOR THE MA-16 INERTIA REEL ECP JAX P3-519: MA-1 and MA-2 Inertia Reels are no longer available in the supply system and further procurement is anticipated. This ECP provides a kit to modify 50 Pilot/Copilot/Plane Captain seats to install the MA-16 Inertia Reel as a substitute for the MA-1/2 to meet outstanding requirements.

Follow-On Kapton Wiring Replacement (Wheel Wells) ECP TBD: The Kapton wiring in the landing gear retraction housing areas (wheel wells) will require replacement due to weather exposure. Initial program will modify 18 P-3C aircraft.

Digital Autopilot : An FY-02 Congressional Plus-Up provided funding to perform NRE, procure, install and test a Digital Autopilot in the P-3C as a replacement for the ASW-31 system, which is highly unreliable and costly to maintain. An FY-03 Congressional Plus-Up provided funding to procure and install four Digital Autopilot systems.

Aircraft Health Monitoring System (AHMS) ECP N/A: An FY-02 Congressional Plus-Up provided NRE funding to develop an AHMS for the P-3C which can monitor critical aircraft systems (engines, structures, electrical, avionics) to identify items that require maintenance or repair. An FY-03 Congressional Plus-up provided funding to test an AHMS in a P-3C. An FY-04 Congressional Plus-up provided funding to modify the prototype AHMS aircraft to test electronic engine instruments. An FY-05 Congressional Plus-Up provided funding for three additional pre-production AHMS kits and installs.

Infra-Red (IR) Strobes ECP JAX P3-776: FY-02 Defense Emergency Response Fund (DERF) funding for 100 IR strobes for P-3 aircraft.

Propeller Balancing Monitoring System (PBMS): An FY-04 Congressional Plus-Up provided funding to install and test a new propeller hub mounted system for power generation (HIPSS). An FY-05 Congressional Plus-Up provided funding to install and test a sytem for in-flight measurement of propeller vibration and balancing (PBMS).

Oxygen System Modification ECP JAX P3-833: Replaces the Aluminum Manifold Check Valve, Filler Check Valve and Pressure Reducing Valve with Monel Parts. O-Level Install. Models of systems affected: P-3C and P-3 Derivitives (EP-3, Special Projects, NP-3, VP-3 and UP-3).

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: The changes identified are minor and do not require approval for full production.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
AHMS	4	0.4																				
APS-115 FEEDBALL MOD	90	1.6																				
DIGITAL AUTOPOLIT	5	0.1																				
EJ RECEIVER MOD	145	**																				
INFRA_RED (IR) STROBES	100	0.5																				
KAPTON WIRE MOD (WHEEL WELL)					18	0.3																
KAPTON WIRE MOD (WINGS)	97	1.0																				
MA-16 INERTIAL REEL MOD KITS	50	0.1																				
OXYGEN SYSTEM MOD KIT	178	0.9																				
PBMS KIT	8	1.4																				
PRIOR YEAR KITS	171	7.6																				
SACP	228	0.7																				
STANDBY (PEANUT) GYRO MOD	86	0.5	23	0.1	19	0.1	18	0.1	4	*												
INSTALLATION KITS N/R		6.1		1.2																		
INSTALL EQUIPMENT																						
AHMS Equipment	4	0.2		0.2																		
DIGITAL AUTOPILOT	5	1.1																				
INFRA-RED (IR) STROBES	100	0.5																				
INSTALL EQUIPMENT N/R																						
ECO																						
STANDBY GYRO								0.1		0.1												
DATA		2.5		0.1		0.1		0.1		0.2												
TRAINING EQUIP		0.3																				
SUPPORT EQUIP		0.3																				
ILS		0.2																				
OTHER SUPPORT		6.1		0.5		0.1		0.1		0.1												
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST		3.5		0.2		0.3																
TOTAL PROCUREMENT	1,271	35.3	23	2.2	37	.9	18	.4	4	.4												

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

** AHMS Equipment on Loan from Contractor.

1. Oxygen System installs are "O" level.

2. Install Equipment cost for PBMS is included in Install Kit cost.

Totals may not add due to rounding

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3C MODIFICATION TITLE: Critical Systems Improvement (OSIP 53-85) Kapton Wiring (Wheel Well)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 5 Months

CONTRACT DATES: FY 2006: FY 2007: 12/06 FY 2008: FY 2009:

DELIVERY DATE: FY 2006: FY 2007: 05/07 FY 2008: FY 2009:

($ in Millions)

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY () kits																						
FY 2006 () kits																						
FY 2007 (18) kits					18	0.2																
FY 2008 () kits																						
FY 2009 () kits																						
TOTAL					18	0.2																

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In								9	9																
Out								9	9																

	FY 2012				FY 2013				To		
	1	2	3	4	1	2	3	4	Complete		TOTAL
In											
Out											

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3C MODIFICATION TITLE: Critical Systems Improvement (OSIP 53-85) HIPPS/PBMS

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 5 Months

CONTRACT DATES: FY 2006: FY 2007: FY 2008: FY 2009:

DELIVERY DATE: FY 2006: FY 2007: FY 2008: FY 2009:

($ in Millions)

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY (8) kits	1	0.1	1	**	6	***																
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
TOTAL	**	0.1	1	**	6																	

** FY 04 Congressional Add for HIPPS was reprogrammmed to fund PBMS kits (7) and one install (funded with FY-04, install in FY-06).
*** FY 05 Congressional Add for PBMS to fund NRE, prototype and testing & 6 installs (all FY-05 funded, 1 install in FY-05, 6 in FY-07).
Installation Schedule

	FY 2005	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	1				1	2	2	2																	
Out	1				1	2	2	2																	

	FY 2012				FY 2013				To		
	1	2	3	4	1	2	3	4	Complete		TOTAL
In											
Out											

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3C MODIFICATION TITLE: Critical Systems Improvement (OSIP 53-85) AHMS

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 4 Months PRODUCTION LEADTIME: 4 Months

CONTRACT DATES: FY 2006: FY 2007: FY 2008: FY 2009:

DELIVERY DATE: FY 2006: FY 2007: FY 2008: FY 2009:

($ in Millions)

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY (4) kits *	3	.3	1	.1**																		
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
TOTAL	3	.3	1	.1**																		

* FY 03 Congressional Add for AHMS provide funding to install and test an AHMS in a P-3C

** FY 05 Congressional Add for AHMS funds three (3) additional pre-production kits and installs.

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	3	1																							
Out	3	1																							

	FY 2012				FY 2013				To		
	1	2	3	4	1	2	3	4	Complete		TOTAL
In											
Out											

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3C MODIFICATION TITLE: Critical Systems Improvement (OSIP 53-85) Infra-Red (IR) Strobes

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 4 Months PRODUCTION LEADTIME: 4 Months

CONTRACT DATES: FY 2006: FY 2007: FY 2008: FY 2009:

DELIVERY DATE: FY 2006: FY 2007: FY 2008: FY 2009:

($ in Millions)

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY (100) kits *	88	.9	6	.1	6	.1																
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
TOTAL	88	.9	6	.1	6	.1																

* FY 02 DERF Funded 100 Kits and 100 Installs for IR Strobes. Only 85 of 100 kits installs were completed with FY-02 DERF funding due to A/C availability. Remaining IR Strobe installs will be completed with current year funding.

	FY 2005	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	88	1	2	2	1	1	2	2	1																
Out	88	1	2	2	1	1	2	2	1																

	FY 2012				FY 2013				To		
	1	2	3	4	1	2	3	4	Complete		TOTAL
In											
Out											

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3C MODIFICATION TITLE: Critical Systems Improvement (OSIP 53-85) Structural Data Recorder Set

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: Months PRODUCTION LEADTIME: Months

CONTRACT DATES: FY 2006: FY 2007: FY 2008: FY 2009:

DELIVERY DATE: FY 2006: FY 2007: FY 2008: FY 2009:

($ in Millions)

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY () kits **	8	0.2	1	*																		
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
TOTAL	8	0.2	1	*																		

* Asterick indicates amount less than 51K

** Nine SDRS kits procured under P-3 OSIP 5-93 and equipment procured under Comon Avionics OSIP 14-92.

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	8	1																							
Out	8	1																							

	FY 2012				FY 2013				To		
	1	2	3	4	1	2	3	4	Complete		TOTAL
In											
Out											

Exhibit P-3a

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. Additional funding in FY1995 and FY1996 was utilized to meet an urgent fleet requirement to upgrade 17 Pre-AIP aircraft with Maverick armament control kits. 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; TCDL; 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

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

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
AFC A-KIT	71	81.7																				
AFC B-KIT		286.5																				
PRE-AIP ARMAMENT KIT (LORAL)	9	2.4																				
PRE-AIP ARMAMENT KIT (PAX RIVER)	8	10.5																				
TORPEDO DIRECTED SEARCH A KIT		1.7																				
TORPEDO DIRECTED SEARCH B KIT		1.5																				
INSTALLATION KITS N/R		37.7		4.4		1.2																
INSTALL EQUIPMENT																						
ADVANCED IRDS		4.0																				
AMIP EQUIPMENT/C4I INMARSAT/ITP				1.2					10	9.5												
GFE SENSORS AND AVIONICS		281.4					7	2.7	7	2.7												
HIGH RESOLUTION DIGITAL RECORDER				0.8		1.1																
INTEGRATED TACT PICTURE (STANDALONE)									14	9.5												
PHASED CAPABILITY UPGRADE (MST)	3	27.5	32	2.1	40	7.9																
PHASED CAPABILITY UPGRADE (MST)(LINK-16)							2	0.7	12	4.3												
PHASED CAPABILITY UPGRADE/SUPPLEMENTAL		5.5																				
INSTALL EQUIPMENT N/R		76.4		3.9		5.8																
ECO																						
DIGITAL STORES MANAGEMENT SYSTEM		5.3		3.5		4.6																
SLAM-ER		23.8																				
DATA		16.7				0.1		0.9		0.8												
TRAINING EQUIP		55.1		4.0		7.1		5.0		0.2												
SUPPORT EQUIP		13.1								0.2												
ILS		16.2								0.1												
OTHER SUPPORT		132.3		6.7		2.1		2.0		2.9												
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	73	124.6	33	6.6	37	3.9			7	0.6												
TOTAL PROCUREMENT	164	1,203.9	65	33.1	77	33.7	9	11.3	50	30.8												

1. FY05 Congressional Add funds eleven (11) TCDL installs. FY05 ESAD Supplemental funds eight (8) TCDL installs.
2. The cost of "A" and "B" kits for all install equipment not separately priced.
3. FY2009 - AMIP Equipment procures 14 Integrated Tactical Picture kits into prior INMARSAT equipped aircraft.
4. No Install Schedule is depicted for LINK 16 because the systems are form fit functions done at an Organization Level.

Totals may not add due to rounding

Exhibit P-3a

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

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Installation through FY98 funded turn-key operation. Installation for FY99 and out years funded in the year they occur.

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 16 Months

CONTRACT DATES: FY 2006: FY 2007: FY 2008: FY 2009:

DELIVERY DATE: FY 2006: FY 2007: FY 2008: FY 2009:

($ in Millions)

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY (71) kits **/***/****	70	124.6	1	4.9																		
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
TOTAL	70	124.6	1	4.9																		

** FY 02 Congressional Add funds two (2) installs.
*** FY 03 Congressional Add funds one (1) install.
**** FY 04 Congressional Add funds one (1) install.

Installation Schedule

	FY 2005	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	70		1																						
Out	68	1	1		1																				

	FY 2012				FY 2013				To		TOTAL	
	1	2	3	4	1	2	3	4	Complete			
In												
Out												

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: 3 Months

PRODUCTION LEADTIME: 10 Months

CONTRACT DATES: FY 2006: ____ FY 2007: ____ FY 2008: 12/07 FY 2009: 12/08

DELIVERY DATE: FY 2006: ____ FY 2007: ____ FY 2008: 10/08 FY 2009: 10/09

($ in Millions)

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY (19) kits **	19	1.9																				
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 (7) kits									7	.6												
FY 2009 (7) kits																						
TOTAL	19	1.9							7	.6												

** FY05 Congressional Add funds eleven (11) TCDL installs. FY05 ESAD Supplemental funds eight (8) TCDL installs.

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In				5	5	5	4							2	2	2	1								
Out					5	5	5	4							2	2	2	1								

	FY 2012				FY 2013				To Complete	TOTAL	
	1	2	3	4	1	2	3	4			
In											
Out											

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3C

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

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 3 Months

PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2006: 9/06 FY 2007: 5/07 FY 2008: FY 2009:

DELIVERY DATE: FY 2006: 9/07 FY 2007: 5/08 FY 2008: FY 2009:

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY (3) kits	*	.2			3	*																
FY 2006 (32) kits			**	1.7	2	**	30	**														
FY 2007 (40) kits					***	3.9	6	***	31	***												
FY 2008 () kits																						
FY 2009 () kits																						
TOTAL		.2		1.7	5	3.9	36		31													

* FY 05 Congressional Add funds 3 installs in FY07

** FY 06 Congressional Add funds 2 installs in FY07 and 30 installs in FY08.

*** FY 07 Title IX Funds 37 installs (6 in FY08, 31 in FY09). The total procurement quantity of 40 includes (2) for Integrated Acoustic Trainers and (1) for lab assets.

	FY 2005	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In									5	9	9	9	9	9	9	9	4								
Out										5	9	9	9	9	9	9	9	4							

	FY 2012				FY 2013				To	TOTAL	
	1	2	3	4	1	2	3	4	Complete		
In											
Out											

Exhibit P-3a

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 (PRNAV), Navigation Warfare (NAVWAR) and Joint Tactical Radio System (JTRS) requirements . Successful integration of any or all of these capabilities, and any future Federal Aviation Administration (FAA) or International Civil Aviation Organization (ICAO) mandates, requires an Flight Management System (FMS) which provides for growth and interface flexibility. This OSIP provides non-recurring engineering for the development of the CNS/ATM architecture for the P-3 aircraft which includes a FMS/CDU, digital air data computer (DADC) and an Electronic Flight Display Systems (EFDS). This modification program provides CNS/ATM upgrades for 148 P-3C aircraft and 16 EP-3 aircraft. RNAV/ MODE S Kit (JAX ECP P3-828) includes FMS/CDU 7000, Digital Air Data Computer, APX-118 (IFF/MODE S) and RINU-G. EFDS (JAX ECP P3-491), MMR (JAX ECP P3-826 & ARC-210 (8.33KHz) (Jax ECP P3-827) are Stand-Alone ECPs that will be installed separately or in conjunction with RNAV/Mode S ECP.

CPRG FRP approved by CNO directed 148 P-3C aircraft.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Acquisition Strategy approved 21 Nov 03/ACAT IVM. Preliminary Design Review for RNAV Mode S completed 16 Jun04. Began transition of ARC-210 (8.33kHz) Radio and MLR-2020 (P-ILS) form Roll-On/Roll-Off to permanent installation in FY-05 (PMA-209 funded).

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
8.33kHz VHF RADIO	28	0.1		***		***		***		***		***										
ARC-197/210 KIT	28	0.5																				
EFDS **	99	3.6	21	2.3	22	1.9	5	0.5	4	0.5	5	0.6										
MLR-2020 (P-ILS)	75	0.3		***		***		***		***		***										
MLR-2020 (PERMANENT)	20	0.1																				
RNAV/MODE S	7	0.8	23	2.0	23	2.1	23	2.1	30	2.9	25	2.5										
INSTALLATION KITS N/R		9.4		0.9																		
INSTALL EQUIPMENT																						
8.33kHz (ARC-210)	54	1.8		***		***		***		***		***										
APX-118 (IFF/MODE S)	5	0.1		***		***		***		***		***										
DIGITAL ADC	20	0.5	56	1.4	56	1.3	54	1.5	60	1.7	50	1.4										
EFDS	106	5.5	27	3.7	25	3.6	4	0.6	4	0.6	5	0.7										
FMS/CDU 7000 (3 per A/C	38	1.5	87	3.8	84	3.7	75	3.6	84	4.1	75	3.8										
MLR-2020 (P-ILS) (2 PER A/C)	148	6.1		***		***		***		***		***										
MLR-2020A-1 UPGRADES	40	0.2		***		***		***		***		***										
RINU-G (RNP 4/5) (2 PER A/C)	8	0.1		***		***		***		***		***										
INSTALL EQUIPMENT N/R		13.1																				
ECO																						
DATA		1.1		0.7																		
TRAINING EQUIP	5	0.7	10	1.5	8	1.0	7	0.7														
SUPPORT EQUIP																						
ILS		1.3		0.4		0.6		0.4		0.5		0.4										
OTHER SUPPORT		10.0		2.0		2.0		1.4		1.6		1.3										
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	1	2.3	6	2.7	23	4.6	23	4.7	23	2.9	30	3.0										
TOTAL PROCUREMENT	682	59.1	230	21.4	241	20.6	191	15.4	205	14.7	190	13.7										

** 60 EFDS funded under GPS OSIP 28-92

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

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

Totals may not add due to rounding

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: 4 Months PRODUCTION LEADTIME: 9 Months

CONTRACT DATES: FY 2006: 7/06 FY 2007: 01/07 FY 2008: 01/08 FY 2009: 01/09

DELIVERY DATE: FY 2006: 1/07 FY 2007: 10/07 FY 2008: 10/08 FY 2009: 10/09

($ in Millions

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY (7) kits	1	.4	6	.5																		
FY 2006 (23) kits					23	2.5																
FY 2007 (23) kits							23	2.2														
FY 2008 (23) kits									23	2.1												
FY 2009 (30) kits																						
TOTAL	1	.4	6	.5	23	2.5	23	2.2	23	2.1												

P-3C Prototype NRE, prototype kit and prototype installation funded in FY02 with Congressional Plus-Up.

RNAV MODE S installs begin in FY05 and consist of FMS/CDU 7000, Digital Air Data Computer (DADC/ADDU), CXP and RINU-G. CXP & RINU-G Funded by PMA-209.

Installation Schedule

	FY 2005	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
	& PRIOR	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	1			2	4		7	8	8	5	6	6	6	5	6	6	6								
Out	1				2	4		7	8	8	5	6	6	6	5	6	6	6							

	FY 2012				FY 2013				To	TOTAL
	1	2	3	4	1	2	3	4	Complete	
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3C/EP-3/Derivatives MODIFICATION TITLE: CNS/ATM (OSIP 13-01) Electronic Flight Display Systems (EFDS)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Team

ADMINISTRATIVE LEADTIME: 4 Months PRODUCTION LEADTIME: 8 Months

CONTRACT DATES: FY 2006: 01/06 FY 2007: 01/07 FY 2008: 01/08 FY 2009: 01/09

DELIVERY DATE: FY 2006: 9/06 FY 2007: 9/07 FY 2008: 9/08 FY 2009: 9/09

($ in Millions)

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY (99) kits	79 **	1.7	18	2.2	2	.2																
FY 2006 (21) kits					21	1.9																
FY 2007 (22) kits							22	2.4														
FY 2008 (5) kits									5	.7												
FY 2009 (4) kits																						
TOTAL	79	1.7	18	2.2	23	2.1	22	2.4	5	.7												

Note: Will conduct stand-alone EFDS installations in FY01-05 to meet immediate requirements. EFDS will be installed concurrent with CNS/ATM Architecture installs beginning in FY05.

** FY-03 Congressional Add includes one EP-3 EFDS installation.

Installation Schedule

	FY 2005	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
	& PRIOR	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	79	4	4	5	5	5	6	6	6	5	5	6	6	2	1	1	1								
Out	77	2	4	4	5	5	5	6	6	6	5	5	6	6	2	1	1	1							

	FY 2012				FY 2013				To	
	1	2	3	4	1	2	3	4	Complete	TOTAL
In										
Out										

Exhibit P-3a

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.

FY04 Congressional Plus-Up of $2.0M for Electro-Optics and Communications Upgrade.
FY05 Congressional Plus-Up of $1.0M for Electro-Optics and Communications Upgrade.
FY05 Congressional Plus-Up of $2.0M for Digital Autopilot Systems.
FY06 Congressional Plus-Up of $1.0M for Electro-Optics and Communications Upgrade.

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	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
AUTO-PILOT KIT	9	0.5	16	1.0	25	1.6	26	1.6	26	1.6	25	1.6										
DIGITAL MAD SYSTEM KIT							3	0.2	6	0.4	6	0.4										
HF RADIO/DATA LINK KIT	3	0.4	9	0.6	30	1.5	26	1.4	26	1.5	29	1.7										
HF-IP KIT							9	0.4	26	1.2	26	1.2										
INFRARED DETECTION KIT (EO/IR)	9	0.2	19	0.3	18	0.3	10	0.2														
INTER COMMUNICATIONS KIT	3	0.1	9	0.1	9	0.1	9	0.1	9	0.1												
RADAR/INTEROGATOR																						
INSTALLATION KITS N/R		0.5																				
INSTALL EQUIPMENT																						
AUTO-PILOT SYSTEM	9	3.0	16	4.0	25	6.3	26	6.5	26	6.7	25	6.7										
DIGITAL MAD SYSTEM							3	0.8	6	1.6	6	1.6										
HF RADIO/DATA LINK SYSTEM	3	2.2	9	3.4	30	9.4	26	8.5	26	9.0	29	10.5										
HF-IP SYSTEM							9	1.8	26	5.2	26	5.2										
INFRARED DETECTION SYSTEM (EO/IR)	9	3.7	19	6.8	18	6.5	10	3.7														
INTER COMMUNICATIONS SYSTEM	3	2.4	9	3.7	9	3.8	9	3.7	9	3.9												
RADAR/INTEROGATOR																						
INSTALL EQUIPMENT N/R		15.3		1.0				0.8		0.7												
ECO																						
DATA		0.9		1.5		2.5		1.0		0.9		0.4										
TRAINING EQUIP		4.1		1.2		2.1		1.0		1.8		0.1										
SUPPORT EQUIP		0.6		1.0		0.1		*		0.6												
ILS		0.8		2.5		1.7		1.5		1.8		0.8										
OTHER SUPPORT		3.7		4.7		4.2		3.1		3.3		3.0										
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	6	0.6	12	2.1	59	3.8	82	5.6	83	5.9	93	6.6										
TOTAL PROCUREMENT	54	38.8	118	33.9	223	43.7	248	41.8	269	46.0	265	39.6										

Totals may not add due to rounding

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 2006: 01/06 FY 2007: 01/07 FY 2008: 01/08 FY 2009: 01/09

DELIVERY DATE: FY 2006: 01/07 FY 2007: 01/08 FY 2008: 01/09 FY 2009: 01/10

($ in Millions)

Cost:	Prior years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY (3) kits			3	.2																		
FY 2006 (9) kits					9	.5																
FY 2007 (30) kits							30	1.6														
FY 2008 (26) kits									26	1.4												
FY 2009 (26) kits																						
TOTAL			3	.2	9	.5	30	1.6	26	1.4												

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In			3				3	3	3		10	10	10		9	9	8								
Out				3				3	3	3		10	10	10		9	9	8							

	FY 2012				FY 2013				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										
Out										

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: 3 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2006: 01/06 FY 2007: 01/07 FY 2008: 01/08 FY 2009:

DELIVERY DATE: FY 2006: 01/07 FY 2007: 01/08 FY 2008: 01/09 FY 2009:

($ in Millions

Cost:	Prior years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY (9) kits	3	.1	6	.2																		
FY 2006 (19) kits					19	.5																
FY 2007 (18) kits							18	.5														
FY 2008 (10) kits									10	.3												
FY 2009 () kits																						
TOTAL	3	.1	6	.2	19	.5	18	.5	10	.3												

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	3		3	2	1		7	6	6		6	6	6		5	5									
Out	3			3	2	1		7	6	6		6	6	6		5	5								

	FY 2012				FY 2013				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										
Out										

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 2006: 01/06 FY 2007: 01/07 FY 2008: 01/08 FY 2009: 01/09

DELIVERY DATE: FY 2006: 01/07 FY 2007: 01/08 FY 2008: 01/09 FY 2009: 01/10

($ in Millions

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY (9) kits	3	.5			6	*																
FY 2006 (16) kits					16	1.0																
FY 2007 (25) kits							25	1.6														
FY 2008 (26) kits									26	1.7												
FY 2009 (26) kits																						
TOTAL	3	.5			22	1.0	25	1.6	26	1.7												

* FY05 Congressional Add funds 6 installs in FY07.

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	3						8	8	6		10	10	5		9	9	8								
Out		3						8	8	6		10	10	5		9	9	8							

	FY 2012				FY 2013				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3 MODIFICATION TITLE: P-3 Critical Obsolescence Program (OSIP 04-04) Inter Communications System

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Installation will be accomplished by contractor mod teams.

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2006: 01/06 FY 2007: 01/07 FY 2008: 01/08 FY 2009: 01/09

DELIVERY DATE: FY 2006: 01/07 FY 2007: 01/08 FY 2008: 01/09 FY 2009: 01/10

($ in Millions

Cost:	Prior years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY (3) kits			3	1.8																		
FY 2006 (9) kits					9	1.8																
FY 2007 (9) kits							9	1.9														
FY 2008 (9) kits									9	1.9												
FY 2009 (9) kits																						
TOTAL			3	1.8	9	1.8	9	1.9	9	1.9												

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In					3		3	3	3		3	3	3		3	3	3								
Out						3		3	3	3		3	3	3		3	3	3							

	FY 2012				FY 2013				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3 MODIFICATION TITLE: P-3 Critical Obsolescence Program (OSIP 04-04) HF -IP

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Installation will be accomplished by contractor mod teams.

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2006: FY 2007: FY 2008: 01/08 FY 2009: 01/09

DELIVERY DATE: FY 2006: FY 2007: FY 2008: 01/09 FY 2009: 01/10

($ in Millions)

Cost:	Prior years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY () kits																						
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 (9) kits									9	.4												
FY 2009 (26) kits																						
TOTAL									9	.4												

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In															3	3	3								
Out																3	3	3							

	FY 2012				FY 2013				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3

MODIFICATION TITLE: P-3 Critical Obsolescence Program (OSIP 04-04) Digital MAD System

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Installation will be accomplished by contractor mod teams.

ADMINISTRATIVE LEADTIME: 3 Months

PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2006: FY 2007: FY 2008: 01/08 FY 2009: 01/09

DELIVERY DATE: FY 2006: FY 2007: FY 2008: 01/09 FY 2009: 01/10

($ in Millions)

Cost:	Prior years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY () kits																						
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 (3) kits									3	.2												
FY 2009 (6) kits																						
TOTAL									3	.2												

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In															1	1	1								
Out																1	1	1							

	FY 2012				FY 2013				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										
Out										

Exhibit P-3a

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 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
CENTER BOX KIT			24	7.2					6	2.0												
EP-3 ROTABLE POOL OUTER WING KIT							3	11.4	2	7.8												
EP-3 SSI-K KIT (A-KIT)					2	2.6	4	5.4	1	1.4												
Rotable Pool Outer Wing Kit	2	0.5	1	0.3																		
SSI-K KIT (A-Kits)	8	5.2	15	9.8	18	12.6	23	17.0	15	12.2												
TITLE IX ROTABLE POOL OUTER WING KIT					10	22.7																
INSTALLATION KITS N/R		6.9		2.3																		
INSTALL EQUIPMENT																						
INSTALL EQUIPMENT N/R																						
ECO																						
CENTER WING FABRICATION				0.3		0.1		0.1		0.1												
SSI-K KIT ECP						0.4		0.4														
DATA		1.2		0.7		0.6		1.0		0.2												
TRAINING EQUIP																						
SUPPORT EQUIP		1.0		0.3		0.4		0.4		0.5												
ILS		0.3		0.3		0.8		1.0		0.5												
OTHER SUPPORT		3.1		6.2		7.0		9.8		11.9												
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST			8	36.4	21	61.0	30	109.9	31	122.4												
TOTAL PROCUREMENT	10	18.0	48	63.8	51	108.1	60	156.3	55	158.8												

1. FY-06 Includes $18.4M Title IX Supplemental Funds
2. SSI-K's include 79 SSIK's and 3 Rotable Pool Outer Wing Kits for total of 82
3. EP-3 SSI-K's include 7 SSIK's and 5 Rotable Pool Outer Wing Kits for total of 12
4. No install Costs associated with FY-07 Title IX Rotable Pool Outer Wing Kits (10)

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: All P-3 T/M/S

MODIFICATION TITLE: P-3 Special Structural Inspection - Kits (SSI-K) and Rotable Pool Outer Wing (OSIP 05-05)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Installation will be accomplished by contractor mod teams.

ADMINISTRATIVE LEADTIME: 2 Months

PRODUCTION LEADTIME: 9 Months

CONTRACT DATES: FY 2006: 3/06 FY 2007: 1/07 FY 2008: 12/07 FY 2009: 12/08

DELIVERY DATE: FY 2006: 1/07 FY 2007: 11/07 FY 2008: 9/08 FY 2009: 9/09

($ in Millions)

Cost:	Prior years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY (10) kits			8	30.4																		
FY 2006 (16) kits					15	61.0																
FY 2007 (18) kits							18	74.9														
FY 2008 (23) kits							3	12.5	20	84.4												
FY 2009 (15) kits									1	4.3												
TOTAL (82)			8	30.4	15	61.0	21	87.4	21	88.7												

*Notes

1. FY-09 Kits include 12 SSI-K installs and the last 3 Rotable Pool Outer Wing Installs

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In			2	3	3		5	5	5	4	5	6	6	7	7	6	1								
Out					2	2	2	2	4	5	5	5	5	6	6	7	7	6	1						

	FY 2012				FY 2013				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										
Out										

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: 4 Months

PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2006: 2/06 FY 2007: FY 2008: FY 2009: 2/09

DELIVERY DATE: FY 2006: 2/07 FY 2007: FY 2008: FY 2009: 2/10

($ in Millions)

Cost:	Prior years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY () kits																						
FY 2006 (24) kits			*	6.0	6	*	6	*	6	3.3												
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 (6) kits																						
TOTAL			*	6.0	6	*	6	*	6	3.3												

* Installs for Center wings procured with FY06 Title IX Supplemental funding occur in FY07 and FY08 and remaining installs will occur in FY09 and FY10 with program funds.

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In							2	2	2	2	2	1	1	1	1	2	2								
Out								2	2	2	2	2	1	1	1	1	2	2							

	FY 2012				FY 2013				To	
	1	2	3	4	1	2	3	4	Complete	TOTAL
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: All P-3 T/M/S

MODIFICATION TITLE: EP-3 Special Structural Inspection - Kits (SSI-K) and Rotable Pool Outer Wing (OSIP 05-05)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Installation will be accomplished by contractor mod teams.

ADMINISTRATIVE LEADTIME: 2 Months

PRODUCTION LEADTIME: 9 Months

CONTRACT DATES: FY 2006: FY 2007: 5/07 FY 2008: 12/07 FY 2009: 12/08

DELIVERY DATE: FY 2006: FY 2007: 3/08 FY 2008: 9/08 FY 2009: 9/09

($ in Millions)

Cost:	Prior years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY () kits																						
FY 2006 () kits																						
FY 2007 (2) kits							2	15.0														
FY 2008 (7) kits							1	7.5	4	30.3												
FY 2009 (3) kits																						
TOTAL (12)							3	22.5	4	30.3												

*Notes

1. FY-08 Kits include 5 SSI-K installs and the 2 Rotable Pool Outer Wing Installs
2. FY-09 Kits include the last 3 Rotable Pool Outer Wing Installs

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In											1	1	1	1	1	1	1								
Out													1	1	1	1	1	1	1						

	FY 2012				FY 2013				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										
Out										

Exhibit P-3a

MODIFICATION TITLE: PROJECT K-0416(OSIP 005-07)

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

DESCRIPTION / JUSTIFICATION: CNO Project K-0416 program provides a rapid response ASW intelligence collection, analysis, and reporting system program focused on OPLAN specific threat submarines, both conventional and nuclear.

CNO K-0416 mission is to place high quality calibrated data on tape for subsequent exploitation and analysis. It is essential for submarine prosecution in deep and littoral water conditions in support of the Sea Shield/Sea Power 21.

The program accomplishes this by introducing advanced collection avionics that operate with special calibrated sensors to provide threat target data for tactical, S&T, and weapon design uses.

CNO K-0416 will modify P-3 Platforms, forward sited laboratories, and select forward deployed sites with these collection avionics to provide tactical and S&T Intelligence.
Prime performer is the Naval Air warfare Center, Patuxent River. NAWC performs system integration, material acquisition, fabrication, and installation of collection systems.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: The changes identified are minor and do not require approval for full production.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
BT TAPE RECORDERS					8	0.7	8	0.5	6	0.6												
INSTALLATION KITS N/R						0.1		0.1		0.1												
INSTALL EQUIPMENT																						
BT TAPE RECORDERS					8	1.0	8	0.8	6	0.9												
INSTALL EQUIPMENT N/R						0.1		0.1		0.1												
ECO																						
DATA																						
TRAINING EQUIP																						
SUPPORT EQUIP						0.3		0.3		0.3												
ILS																						
OTHER SUPPORT						0.2		0.2		0.2												
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST					8	0.3	8	0.3	6	0.3												
TOTAL PROCUREMENT					24	2.7	24	2.3	18	2.4												

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3C MODIFICATION TITLE: CNO Project K-0416

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION:

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 4 Months

CONTRACT DATES: FY 2006: FY 2007: 11/06 FY 2008: 11/07 FY 2009: 11/08

DELIVERY DATE: FY 2006: FY 2007: 3/07 FY 2008: 3/08 FY 2009: 3/09

($ in Millions)

Cost:	Prior years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY () kits																						
FY 2006 () kits																						
FY 2007 (8) kits					8	0.3																
FY 2008 (8) kits							8	0.3														
FY 2009 (6) kits									6	0.3												
TOTAL					8	0.3	8	0.3	6	0.3												

Installation Schedule

	FY 2005	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In							2	3	3		2	3	3		2	2	2								
Out							2	3	3		2	3	3		2	2	2								

	FY 2012				FY 2013				To	
	1	2	3	4	1	2	3	4	Complete	TOTAL
In										
Out										

Exhibit P-3a

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); Precision Targeting Workstation (PTW); OASIS; Video Distribution Controller (VDC); Tactical Mission Computer; ALR-95 ESM; DAMA Satcom; MST; TCDL; 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.
These improvements are a vital element of the P-3 sustainment bridge, significantly enhancing the strategy of a smaller, more ready, more capable P-3 force during the bridge to Multi-Mission Maritime Aircraft (MMA). 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 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
INSTALLATION KITS N/R																						
INSTALL EQUIPMENT																						
AAR 47 TECH REFRESH/INSERTION																						
ALR 95 ESM TECH REFRESH/INSERTION																						
APS 137 RADAR TECH REFRESH/INSERTION																						
ASX 4 AIMS TECH REFRESH/INSERTION																						
DAMA SATCOM TECH REFRESH/INSERTION									12	2.6												
MATT TECH REFRESH/INSERTION																						
OASIS TECH REFRESH/INSERTION									14	1.8												
TCDL TECH REFRESH/INSERTION																						
INSTALL EQUIPMENT N/R								4.0		10.5												
ECO																						
ECO								0.3		0.8												
DATA								0.1		0.1												
TRAINING EQUIP								0.1		0.1												
SUPPORT EQUIP								0.1		0.1												
ILS								0.1		0.1												
OTHER SUPPORT								1.0		2.2												
INTERIM CONTRACTOR SUPPORT																						
TOTAL PROCUREMENT								5.5	26	18.2												

NOTE: No Install Schedule is depicted because the systems are form fit functions done at an Organization Level.

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2007	
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy / APN5 Aircraft Modifications**							P-1 ITEM NOMENCLATURE **054100, S-3 SERIES**					
Program Element for Code B Items:							Other Related Program Elements					
	PRIOR YEARS	ID Code	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
QUANTITY												
COST (In Millions)	411.3	A	0.7	0.7	0.5							413.3

DESCRIPTION: This line item funds modifications to S-3 aircraft. The S-3B is a carrier based, all weather, high wing, high subsonic,twin engine, multi-mission aircraft capable of Anti-Surface Warfare (ASUW) operations and tanking. The overall goal of the modifications budgeted in FY2008 is to provide funding to implement Engineering Change Proposals (ECPs) and Engineering Change Orders (ECOs) for flight critical S-3B systems that are essential to the continued safe operational employment and support of the S-3B aircraft. Total Active Inventory (TAI) is 6. The S-3B will reach end of service in 2009. The specific modifications budgeted and programmed are:

OSIP No. / DESCRIPTION	PRIOR YEARS	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
004-06 FLIGHT CRITICAL SYSTEM SUSTAINMENT		0.7	0.7	0.5							1.9
TOTAL		0.7	0.7	0.5							1.9

Exhibit P-3a

MODIFICATION TITLE: FLIGHT CRITICAL SYSTEM SUSTAINMENT(OSIP 004-06)

MODELS OF SYSTEMS AFFECTED: S-3B TYPE MODIFICATION: Safety

DESCRIPTION / JUSTIFICATION: The purpose of this program is to provide funding to implement airframe and avionic modifications to flight critical S-3B systems that are essential to the continued safe operational employment and support of the S-3B aircraft. These include but are not limited to airframe changes to inner and outer wing spars discovered during the Full Scale Fatigue test and are required to safely operate the aircraft until FY2009, and replacement of Kapton wiring harness's to Critical Avionics equipment.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: The modifications identified are minor and do not require approval for full production.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
CRITICAL AVIONICS WIRING			15	0.1																		
INSTALLATION KITS N/R				0.1																		
INSTALL EQUIPMENT																						
INSTALL EQUIPMENT N/R																						
ECO																						
DATA				*																		
TRAINING EQUIP																						
SUPPORT EQUIP																						
ILS				0.2		0.1		0.1														
OTHER SUPPORT				0.3		0.6		0.4														
INTERIM CONTRACTOR SUPPORT																						
TOTAL PROCUREMENT			15	.7		.7		.5														

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

NOTE: Installation for kits is "O" level.

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2007	
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy / APN5 Aircraft Modifications**							P-1 ITEM NOMENCLATURE **054400, E-2 SERIES**					
Program Element for Code B Items:							Other Related Program Elements					
	PRIOR YEARS	ID Code	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
QUANTITY												
COST (In Millions)	1171.5	A	23.1	9.1	11.0	11.6	21.0	19.4	27.0	31.8	115.4	1440.9

DESCRIPTION:

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). The Structural Enhancements OSIP (121-87) provides for procurement and installation of the new eight (8) bladed propeller. The Block II Upgrade OSIP (74-88) funds commercial technology, E-2 Warning Detection System, Radar Obsolescence, Vapor Cycle and Engine Turbine Blade reliability improvements and emerging safety of flight items such as parachute survival ensemble (PSE), cockpit lighting, and flight instruments. As the result of technological advancements, the Commercial-Off-The-Shelf (COTS) hardware/software of the Mission Computer (MCU) will change or become obsolete in the very near future. The Technology Insertion OSIP (5-01) supports assembly, validation and configuration management of COTS hardware and software of the MCU. The Outer Wing Panel (OWP) OSIP (87-88), funds OWP enhancements. The E-2 Core Open Architecture (OA) OSIP (5-09), provides core hardware and software architecture upgrades to reduce cost of future requirements integration. 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 (aADNS) Internet Protocol router/gateway. The E-2 In-Flight Refueling (IFR) OSIP (3-10), provides extended range and longer endurance for Battlespace Surveillance, Management, and Targeting for 24/7 operations. 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 inflight. 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 specific modifications budgeted and programmed are:

OSIP No. / DESCRIPTION	PRIOR YEARS	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
121-87 STRUCTURAL ENHANCEMENTS	563.9	3.0	2.1	0.3							569.4
074-88 BLOCK UPGRADE II	418.9	6.8	0.7	0.2							426.6
087-88 OUTER WING PANELS	118.3	1.2	0.3	0.3	0.3	0.3					120.7
005-01 TECHNOLOGY INSERTION	39.5	12.1	5.9	10.2	9.7	10.0	10.5	10.6	10.8	36.8	156.1
005-09 E-2 CORE OA/IP INFRASTRUCTURE & EXPERIMENTATION					1.5	8.8	6.1	0.2			16.7
002-10 HIGH FREQUENCY INTERNET PROTOCOL						0.3	0.4	0.4	0.4	0.7	2.1
003-10 IFR						1.6	1.7	15.7	17.4	72.1	108.5
002-11 AUTOMATIC IDENTIFICATION SYSTEM							0.8	0.1	0.1	*	1.0
001-13 DUAL TRANSMIT SATCOM									3.1	5.8	8.9
TOTAL	1140.6	23.1	9.1	11.0	11.6	21.0	19.4	27.0	31.8	115.4	1410.0

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

Totals may not add due to rounding

Exhibit P-3a

MODIFICATION TITLE: STRUCTURAL ENHANCEMENTS(OSIP 121-87)

MODELS OF SYSTEMS AFFECTED: E-2C TYPE MODIFICATION: Safety

DESCRIPTION / JUSTIFICATION:

The Navy Inventory Control Point (NAVICP) projected an E-2 propeller shortage in FY 2000. As a result, NAVICP approved a Logistics Engineering Change Proposal (LECP) to procure a new eight-blade propeller for the E-2 program office. The LECP funds the non-recurring and the procurement of 187 propellers only. The E-2 program office is responsible for funding the ground/flight test and overall system integration between Northrop Grumman (airframe), Allison (engine) and Hamilton-Sunstrand (propellers). The ground/flight test and prototype propeller kits were funded with APN-1 funds starting in FY99. Starting in FY00 retrofit propeller kits and installs were funded with APN-5 funds.

Repeatedly, E-2 Hawkeye and C-2A Greyhound elevator trim actuators have failed in flight and on deck, causing the aircraft to go into an immediate nose down flight profile. In some cases, the aircraft has lost half its altitude before control was regained. The community assesses this risk as potentially catastrophic. Failure of the elevator trim actuator occurs when an internal thrust bearing fails, allowing the rod end to separate from the actuator housing, resulting in an abrupt nose down trim. Safety ECP (NI 1004-04 Trim Actuator) provides a hardware correction by opening the elevator trim actuator, changing the bushing and other component parts. This OSIP funds the installation of 114 Trim Actuators, 72 kits in FY05 and 42 kits in FY06 funded by NAVICP.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

NP2000 Developmental Component Testing is complete. First successful developmental flight test took place in April 01. NP2000 production approved July 03. Flight test completed 2nd QTR 04.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
270 LONGERON	15	0.6																				
ACTUATORS	150	2.7																				
ECP 1004-04 Trim Actuator	120	0.1	30	*																		
ECP 367R1-WCS ENHANCEMENT	28	10.6																				
ELEVATOR IDLER-ARM	75	0.5																				
ENGINE JUNCTION BOX	388	2.4																				
LECP NP2000 PROPELLERS	75	1.2																				
MLG FITTING	150	0.1																				
MOD TRUSS	52	5.2																				
OWP MOD	30	1.2																				
PRESSURE BULKHEAD	34	*																				
UPPER LONGERON	49	1.2																				
WING CENTER SECTION	78	114.3																				
WINGFOLD ACTUATORS	200	*																				
INSTALLATION KITS N/R		14.5																				
INSTALL EQUIPMENT																						
GENERATORS (DERF II)	283	4.4																				
INSTALL EQUIPMENT N/R		0.1																				
ECO		0.8																				
DATA		0.8																				
TRAINING EQUIP		3.6																				
SUPPORT EQUIP		2.3																				
ILS		6.0		0.4		0.4		0.1														
OTHER SUPPORT		30.9		0.1		0.1																
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	418	360.5	48	2.5	50	1.7	1	0.2														
TOTAL PROCUREMENT		563.9		3.0		2.1		0.3														

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

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: E-2C

MODIFICATION TITLE: STRUCTURAL ENHANCEMENTS(OSIP 121-87)

INSTALLATION INFORMATION: Trim Actuators

METHOD OF IMPLEMENTATION: Depot Field Mod Team

ADMINISTRATIVE LEADTIME: 1 Months

PRODUCTION LEADTIME: 1 Months

CONTRACT DATES: FY 2006 Oct 05 FY 2007 Oct 06 FY 2008 FY 2009

DELIVERY DATE: FY 2006 Nov 05 FY 2007 Nov 06 FY 2008 FY 2009

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (192) kits	130	1.3	* 62																			
FY 2006 (32) kits			32	0.5																		
FY 2007 (40) kits					40	0.3																
FY 2008 () kits																						
FY 2009 () kits																						
Total	130	1.3	94	0.5	40	0.3																

*62 units reflected in FY06 are funded with FY05 funds. Quantities are higher than kit purchase due to safety forced retrofit of spares.

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	130		20	20	54	20	10	10													
Out	130			20	20	54	20	10	10												

	FY 2011				FY 2012				FY 2013					
	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Total
In														
Out														

Totals may not add due to rounding

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: E-2C MODIFICATION TITLE: STRUCTURAL ENHANCEMENTS (OSIP 121-87)

INSTALLATION INFORMATION: NP2000 Propeller LECP

METHOD OF IMPLEMENTATION: Contractor Field Mod Team @ Depot

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 4 Months

CONTRACT DATES: FY 2006 FY 2007 FY 2008 FY 2009

DELIVERY DATE: FY 2006 FY 2007 FY 2008 FY 2009

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (75) kits	43	2.5	16	2.0	10	1.4	1	0.2														
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
Total	43	2.5	16	2.0	10	1.4	1	0.2														

* 5 kits were installed during production line so total should be 70.

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	43	4	4	4	4	4	2	2	2	1											
Out	43	4	4	4	4	4	2	2	2	1											

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Exhibit P-3a

MODIFICATION TITLE: BLOCK UPGRADE II(OSIP 074-88)

MODELS OF SYSTEMS AFFECTED: E-2C TYPE MODIFICATION: Mission Performance Enhancement/Safety

DESCRIPTION / JUSTIFICATION:
The Block II Upgrade OSIP (74-88) funds commercial technology, E-2 Warning Detection System, Radar Obsolescence, Vapor Cycle and Engine Turbine Blade reliability improvements and emerging safety of flight items such as parachute survival ensemble (PSE); cockpit lighting, and flight instruments.

E-2C Warning Detection System: Dual Element Fire Warning (Safety ECP 934-01) and Oil Pressure Transmitter (OPT) Warning Detection System (Safety ECP 938-01) - Replaces T56-A-427 Dual Element Fire Warning and Oil Pressure Warning System in the E-2 Aircraft to alleviate false warning indications.

Radar Obsolesence - Funds non-recurring and recurring engineering efforts for Obsolesence/Readiness Improvements to the APS-145 which is the number one weapon system mission degrader.

ECP 939-01 - "Vapor Cycle" - Funds wiring modification, rebussing of under sized wiring between circuit breakers in the vapor cycle system.

Engine Turbing Blade Cost Reduction & Effectiveness Improvement (CREI) - "T56-A-427 First Stage Turbine Blade - Track Seal Replacement" - A more durable metal blade track seal will replace the current ceramic seal. This design change is consistent with newer technology engines and is expected to increase the reliability of the T56-A-427 engine by reducing low power removals.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:
Kits are being procured and installed on all applicable aircraft.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
486 MFCDU	10	1.5																				
CAINS ASN-139	10	3.0																				
COCKPIT PANEL	10	0.5																				
ECP 410-SATCOM	4	0.3																				
EHSP	7	4.5																				
ENG FIRE WALL CONNECTOR	78	0.1																				
ENG OIL PRESSURE SYS	13	0.4																				
ENHANCED DISPLAY (EMDU)	18	28.9																				
GPS	13	0.6																				
IMPROVED IFF	13	22.6																				
JTIDS	13	8.8																				
LOW OIL WARNING		0.7																				
MFCDU BLOWER	10	0.1																				
MFCDU MOD (SINS)	10	0.1																				
MFCDU MOD	10	0.7																				
OIL PRESSURE TRANSMITTER	74	0.7																				
RADAR GROUP II	13	28.3																				
SAFCS	10	3.2																				
SAFETY ECP 934-01 DUAL ELEMENT	74	1.7																				
SAFETY ECP 939-01 VAPOR CYCLE	52	0.5																				
SINS FILTER	10	*																				
SINS MOUNT	10	*																				
INSTALLATION KITS N/R		69.7		5.9		0.2																
INSTALL EQUIPMENT																						
ECP 400 - AIC 400	9	0.5																				
ECP 400 - APX-100	13	0.2																				
ECP 400 - JTIDS (NOTE 1)	28	28.7																				
ECP 400 - LAMPS ASSY	9	0.1																				
ECP 403 - AM95C60 CHIP		0.4																				
ECP 403 - DUAL CAINS (S/S)	10	2.8																				
ECP 403 - MDL (DTM)	10	0.1																				
ECP 403 - MDL (IRU)	10	0.1																				
ECP 403 - RT-1379A	15	0.7																				
ECP 403 - SDC	10	0.1																				
ECP 403 - TID	24	1.3																				
INSTALL EQUIPMENT N/R		1.0																				
ECO																						
DATA		15.2																				
TRAINING EQUIP	2	59.4																				
SUPPORT EQUIP		40.9																				
ILS		15.7		0.2																		
OTHER SUPPORT		27.9		0.4		*		*														
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	113	47.1	13	0.3	17	0.4	6	0.2														
TOTAL PROCUREMENT		418.9		6.8		0.7		0.2														

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

Totals may not add due to rounding

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: E-2C MODIFICATION TITLE: BLOCK UPGRADE II(OSIP 074-88)

INSTALLATION INFORMATION: Dual Element Fire Warning Safety ECP 934-01

METHOD OF IMPLEMENTATION: Depot Driven-in-Modification (DIM)

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 1 Months

CONTRACT DATES: FY 2006 FY 2007 FY 2008 FY 2009

DELIVERY DATE: FY 2006 FY 2007 FY 2008 FY 2009

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (74) kits	62	2.1	3	0.1	5	0.1	4	0.1														
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
Total	62	2.1	3	0.1	5	0.1	4	0.1														

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	62	1	1	1		2	1	1	1	1	1	1	1								
Out	62	1	1	1		2	1	1	1	1	1	1	1								

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Totals may not add due to rounding

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: E-2C MODIFICATION TITLE: BLOCK UPGRADE II (OSIP 74-88)

INSTALLATION INFORMATION: Vapor Cycle Safety ECP 939-01

METHOD OF IMPLEMENTATION: Depot Driven-in-Modification (DIM)

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 5 Months

CONTRACT DATES: FY 2006 FY 2007 FY 2008 FY 2009

DELIVERY DATE: FY 2006 FY 2007 FY 2008 FY 2009

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (52) kits	28	0.8	10	0.3	12	0.3	2	0.1														
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
Total	28	0.8	10	0.3	12	0.3	2	0.1														

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	28	3	3	2	2	3	3	3	3	2											
Out	25	3	3	3	2	2	3	3	3	3	2										

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Totals may not add due to rounding

Exhibit P-3a

MODIFICATION TITLE: OUTER WING PANELS(OSIP 087-88)

MODELS OF SYSTEMS AFFECTED: E-2C TYPE MODIFICATION: SAFETY

DESCRIPTION / JUSTIFICATION:

The E-2C fatigue test and inspection of aircraft have identified fatigue stress cracks in Outer Wing Panels (OWP) which could cause loss of aircraft and resulting in injury or loss of personnel. OWP's installed on T56-A-427 configured aircraft are limited to 7,500 flight hours. Teardowns of fleet OWP's showed that overhaul of the OWP is neither technically practical nor cost effective. This modification enhances the high stress areas. This incorporation extends the service life on OWP with Service Life Limit (SLL) of 6000 flight hours.
Fourteen (14) OWP's will be enhanced with AYC-1222 (ECP 91145/C2A/859-97 Rev A).

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Not Applicable

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
ATTACHING HARDWARE	5	1.4																				
ECP 362R2C2 - OUTER WING PANEL	82	77.7																				
ECP 378 - REDESIGNED OWP	10	22.0																				
ECP 383R1C1 - SDRS	108	0.6																				
ECP 91145/C2A/859-97 Rev A	4	1.9	2	0.4	2	*	2	*	2	*												
INSTALLATION KITS N/R		7.6																				
INSTALL EQUIPMENT																						
ECP 3831C1 SDRS		3.0																				
INSTALL EQUIPMENT N/R																						
ECO																						
DATA		1.7																				
TRAINING EQUIP																						
SUPPORT EQUIP		0.9																				
ILS		0.3																				
OTHER SUPPORT		0.6		*																		
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	82	0.7	2	0.8	2	0.3	2	0.3	2	0.3												
TOTAL PROCUREMENT		118.3		1.2		0.3		0.3		0.3												

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

Note:
1. Outer Wing Panels (OWP) technical directive AYC-1222 enhancement of fatigue life was decreased from 34 to 14 due to the latest system engineering specifications reducing actual life limits for the E-2C aircraft. The information is based upon latest heat and gravitational stresses provided by Northrop Grumman Corporation.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: E-2C MODIFICATION TITLE: OUTER WING PANELS(OSIP 087-88)

INSTALLATION INFORMATION: ECP 91145/C-2A/859-97 Rev. A

METHOD OF IMPLEMENTATION: Depot Drive-in Modification (DIM)

ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2006 Mar 06 FY 2007 Mar 07 FY 2008 Mar 08 FY 2009 Mar 09

DELIVERY DATE: FY 2006 Sep 06 FY 2007 Sep 07 FY 2008 Sep 08 FY 2009 Sep 09

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (4) kits	4	1.0																				
FY 2006 (2) kits			2	0.8																		
FY 2007 (2) kits					2	0.3																
FY 2008 (2) kits							2	0.3														
FY 2009 (2) kits									2	0.3												
											2	0.3										
Total	4	1.0	2	0.8	2	0.3	2	0.3	2	0.3	2	0.3										

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		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			1	1						
Out	4		1	1			1	1			1	1			1	1					

	FY 2011				FY 2012				FY 2013					
	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Total
In														
Out														

Totals may not add due to rounding

Exhibit P-3a

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.

Government War On Terrorism (GWOT) effort: "E-2C Maritime Automatic Identification System ($5M)" has been added to Other Support in FY06.

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)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	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																						
DATA																						
TRAINING EQUIP																						
SUPPORT EQUIP																						
ILS		2.4		0.3		0.2		0.2		0.2												
OTHER SUPPORT		37.1		11.8		5.8		10.1		9.6												
INTERIM CONTRACTOR SUPPORT																						
TOTAL PROCUREMENT		39.5		12.1		5.9		10.2		9.7												

Exhibit P-3a

MODIFICATION TITLE: E-2 CORE OA/IP INFRASTRUCTURE & EXPERIMENTATION(OSIP 005-09)

MODELS OF SYSTEMS AFFECTED: E-2C TYPE MODIFICATION: Mission Performance Enhancements

DESCRIPTION / JUSTIFICATION:

An Open Architected distributed computing environment and Internet Protocol networking infrastructure is required to enable E-2 Global Information Grid (GIG) connectivity in a digital networking environment. This technology will reduce the cost and schedule to integrate future software intensive capabilities, such as Single Integrated Air Picture (SIAP), and eases the ability to share applications between platforms and Services. Funding for kits, installation and associated recurring efforts for Open Architecture (OA) computing hardware and software, Tactical Information Services (TIS) hardware and software, and Airborne Automated Digital System (AADN) digital router hardware and software.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:
Design and integration non-recurring efforts are funded with RDT&E funds starting in FY08. Kit procurements for Fleet aircraft installs will begin in FY09 with the val/ver units.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
INSTALLATION KITS (A Kits)									2	1.2												
INSTALLATION KITS N/R																						
INSTALL EQUIPMENT																						
INSTALL EQUIPMENT N/R																						
ECO																						
DATA																						
TRAINING EQUIP																						
SUPPORT EQUIP																						
ILS																						
OTHER SUPPORT										0.4												
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST																						
TOTAL PROCUREMENT										1.5												

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

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: E-2C MODIFICATION TITLE: E-2 CORE OA/IP INFRASTRUCTURE & EXPERIMENTATION (OSIP 005-09)

INSTALLATION INFORMATION: E-2 Core OA/IP Infrastructure & Experimentation

METHOD OF IMPLEMENTATION: Depot-Level Field Team Modification

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2006 FY 2007 FY 2008 FY 2009 Jan 09

DELIVERY DATE: FY 2006 FY 2007 FY 2008 FY 2009 Jul 09

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS () kits																						
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 (2) kits											2	*										
											6	0.1										
Total											8	0.2										

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

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In																					
Out																					

	FY 2011				FY 2012				FY 2013					
	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Total
In														
Out														

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2007	
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy / APN5 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	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
QUANTITY												
COST (In Millions)	49.2	A	13.9	17.0	20.2	26.3	17.2	10.8	11.0	11.2	31.2	208.1

DESCRIPTION: This line item funds modifications to a group of trainer aircraft which includes T-34C, T-39, T-44A/C, TH-57, T-38, TC-12, and T-2C. The trainer aircraft are described as follows: The T-34C is a single engine turbo-prop, multi-seat aircraft produced by Beech Aircraft used to simulate jet aircraft flight; the T-39 is a dual-engine, multi-purpose aircraft used to train undergraduate flight officers; the T-44 is a twin-engine, multi-seat aircraft produced by Beech Aircraft used to simulate operation of twin engine aircraft, specifically the P-3; the TH-57 and TH-6 are a single-engine, multi-seat rotary wing aircraft used for helicopter training. The T-38 is a two seat twin-engine supersonic jet aircraft utilized by the US Navy Test Pilot School to train pilots, test flight officers, and test engines. The overall goal of the modification is to maintain safe and reliable operation of the trainer aircraft through the timely installation of necessary changes.

The specific modifications budgeted and programmed are:

OSIP No. / DESCRIPTION	PRIOR YEARS	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
005-04 T-44 AVIONICS OBSOLESCENCE	16.2	7.8	7.7	7.5	19.1	6.2					64.5
015-04 T-38 A/C CONVERSION	8.9	6.0	6.3	5.8						16.7	43.7
006-05 TRAINER LEGACY A/C FAA	1.1	0.1	0.1	0.1						0.1	1.5
006-07 TH-57 SAFETY UPGRADE			2.2	6.2	6.5	10.4	10.1	11.0	11.2	14.4	71.9
007-07 T44 WING WIRING			0.7	0.7	0.7	0.7	0.7				3.6
TOTAL	26.2	13.9	17.0	20.2	26.3	17.2	10.8	11.0	11.2	31.2	185.0

Exhibit P-3a

MODIFICATION TITLE: T-44 AVIONICS OBSOLESCENCE(OSIP 005-04)

MODELS OF SYSTEMS AFFECTED: T-44A TYPE MODIFICATION: Safety

DESCRIPTION / JUSTIFICATION: The T-44A Avionics are becoming non-supportable due to non-availability of parts. The following avionics systems require replacement: NCS-31A Area Navigation/Control System, AP-106 Autopilot, Flight Director and the RDR-130 Weather Radar. Avionics are being returned from the repair vendor Beyond Economical Repair (BER) due to non-availability of parts. Spare units are not available in the commercial market. IMPACT: As avionics become BER due to lack of parts, spares will be depleted. Lack of avionics will ground aircraft and severely degrade CNATRA's ability to meet Pilot Training Requirements beginning in FY04. Current plans call for T-44 to fly its training mission until 2015. There are 54 T-44A in the inventory and all 54 will receive this modification.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: The T-44 Avionics Obsolescence (OSIP 05-04) non-recurring engineering occurred in FY04. Commercially available Non-Development Item (NDI) kit procurement and installations began in FY05 .

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
Install Kits	8	5.4	8	1.2	9	1.2	8	1.0	12	1.7												
INSTALLATION KITS N/R	3	4.7																				
INSTALL EQUIPMENT																						
Installation Equipment (B kits)			8	4.8	9	5.0	8	4.8	12	7.5												
INSTALL EQUIPMENT N/R																						
ECO																						
DATA				0.4																		
TRAINING EQUIP	2	5.5	1	0.7	1	0.3	1	0.1	4	7.9												
SUPPORT EQUIP																						
ILS																						
OTHER SUPPORT																						
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	5	0.6	14	0.7	9	1.1	8	1.5	12	2.1												
TOTAL PROCUREMENT	18	16.2	31	7.8	28	7.7	25	7.5	40	19.1												

Totals may not add due to rounding

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: T-44A MODIFICATION TITLE: T-44 AVIONICS OBSOLESCENCE(OSIP 005-04)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: CONTRACTOR FIELD TEAM MODIFICATION

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 1 Months

CONTRACT DATES: FY 2006 Nov 05 FY 2007 Nov-06 FY 2008 Nov-07 FY 2009 Nov-08

DELIVERY DATE: FY 2006 Dec 05 FY 2007 Dec 06 FY 2008 Dec 07 FY 2009 Dec 08

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY(11) kits	5	0.6	6	0.3																		
FY 2006 (8) kits			8	0.4																		
FY 2007 (9) kits					9	1.1																
FY 2008 (8) kits							8	1.5														
FY 2009 (12) kits									12	2.1												
TO COMPLETE () kits																						
Total	5	0.6	14	0.7	9	1.1	8	1.5	12	2.1												

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	5	4	4	4	2	2	2	2	3	2	2	2	2	3	3	3	3				
Out	5	4	4	4	2	2	2	2	3	2	2	2	2	3	3	3	3				

	FY 2011				FY 2012				FY 2013					
	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Total
In														
Out														

Totals may not add due to rounding

Exhibit P-3a

MODIFICATION TITLE: T-38 A/C CONVERSION(OSIP 015-04)

MODELS OF SYSTEMS AFFECTED: T-38A SUPERSONIC JET TRAINER TYPE MODIFICATION: SAFETY/RELIABILITY

DESCRIPTION / JUSTIFICATION: The T-38A Aircraft was introduced into service between 1961 and 1962 and has undergone numerous changes through the years. The U. S. Navy has allocated 10 aircraft at TPS and relies heavily on the U. S. Air Force for engineering and logistics support. At the close of FY08, the U. S. Air Force will have transitioned all of their aircraft to T-38C and the U.S. Navy will need to stand-up engineering and logistics units for these unique aircraft. Due to the age of the aircraft, operations and support costs will increase over the life of the aircraft. The modifications will reduce O&S costs, allow the U. S. Navy to continue to utilize engineering and logistics infrastructure of the U.S. Air Force, and provide for improved safety of the T-38 Aircraft. The U. S. Navy plans to utilize the T-38 at USNTPS through 2020 and beyond. Future modifications will include improved wings and ejection seats, currently being developed by the U.S. Air Force.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: All components and systems required for this program are being developed and tested by the U.S. Air Force. No U. S. Navy unique operational testing is anticipated under this program.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
AUP KITS	7	6.5	3	3.4																		
EJECTION SEATS																						
PMP KITS			2	1.3	10	5.3	8	4.9														
WINGS																						
INSTALLATION KITS N/R																						
INSTALL EQUIPMENT																						
INSTALL EQUIPMENT N/R																						
ECO																						
DATA																						
TRAINING EQUIP																						
SUPPORT EQUIP		*																				
ILS																						
OTHER SUPPORT		0.5		0.2		0.1		0.2														
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	7	1.9	5	1.1	10	0.8	8	0.7														
TOTAL PROCUREMENT	14	8.9	10	6.0	20	6.3	16	5.8														

Totals may not add due to rounding

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: T-38A SUPERSONIC JET TRAINER MODIFICATION TITLE: T-38 A/C CONVERSION(OSIP 015-04)

INSTALLATION INFORMATION: AUP KITS

METHOD OF IMPLEMENTATION: CONCURRANCE WITH PHASED DEPOT MAINTENANCE

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 2 Months

CONTRACT DATES: FY 2006 Nov 05 FY 2007 N/A FY 2008 N/A FY 2009 N/A

DELIVERY DATE: FY 2006 Jan 06 FY 2007 N/A FY 2008 N/A FY 2009 N/A

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY05 & PY (7) kits	7	1.9																				
FY 2006 (3) kits			3	1.0																		
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
Total	7	1.9	3	1.0																		

Installation Schedule

	FY2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	7		1	1	1																
Out	7		1	1	1																

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Totals may not add due to rounding

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: T-38A SUPERSONIC JET TRAINER MODIFICATION TITLE: T-38 A/C CONVERSION (OSIP 015-04)

INSTALLATION INFORMATION: PMP KITS

METHOD OF IMPLEMENTATION: CONCURRANCE WITH PHASED DEPOT MAINTENANCE

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 3 Months

CONTRACT DATES: FY 2006 Nov 05 FY 2007 Nov-06 FY 2008 Nov-07 FY 2009 N/A

DELIVERY DATE: FY 2006 Feb 06 FY 2007 Feb 07 FY 2008 Feb-08 FY 2009 N/A

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY05 & PY () kits																						
FY 2006 (2) kits			2	0.1																		
FY 2007 (10) kits					10	0.8																
FY 2008 (8) kits							8	0.7														
FY 2009 () kits																						
Total			2	0.1	10	0.8	8	0.7														

Installation Schedule

	FY2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In			2				4	4	2		4	4									
Out				2				4	4	2		4	4								

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Totals may not add due to rounding

Exhibit P-3a

MODIFICATION TITLE: TRAINER LEGACY A/C FAA(OSIP 006-05)

MODELS OF SYSTEMS AFFECTED: T-44A, TH-57B/C, TC-12B, T-34C, T-39G/N, T-2C TYPE MODIFICATION: Safety, Reliability, Maintainability

DESCRIPTION / JUSTIFICATION: Federal Aviation Regulations require manufacturers of commercial aircraft and associated systems/subsystems to investigate discrepant conditions, failures, and potential safety problems reported by all operators. The results of these investigations with recommended corrective action are reviewed/approved by the FAA and Navy and provided to all operators as service bulletins. Each service bulletin is a complete technical directive that provides corrective change information or detailed modification instructions. Compliance with many of these FAA bulletins is mandatory to ensure safe, reliable, FAA/Navy certified aircraft and continued flight operations. The Navy must maintain configuration and integrity compatible with FAA certified commercial models by incorporation of applicable service bulletins even when they emerge during the year of execution. The incorporation of certain service bulletins also serves to preclude extensive repairs/repetitive inspections. Crew equipment requirements in accordance with FAA directives and Navy requirements will be incorporated to ensure maximum safety in case of emergency. Specific modifications budgeted in this OSIP include the incorporation of TC-12B, T-34C, T-39G/N, T-44A, T-2C and TH-57B/C FAA Bulletins and Safety of Flight Navy Directives. Specific examples of components that will require modification to conform to FAA bulletins and directives: oxygen masks, brakes, wing wiring, attenuating seats, exceedence warning, flap actuators, UHF/VHF radios, GPS, Mode S Transponder, Traffic Avoidance System, and Landing Gear.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Applicable FAA data (Supplemental Type Certificates, Service Bulletins and Airworthiness Directives) is reviewed for possible incorporation on an as required basis. All data is previously approved and verified by the FAA.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
T-2C			23	*	23	*	23	*														
T-34C			309	*	309	*	309	*														
T-39G/N			23	*	23	*	16	*														
T-44 Stall Warning	15	0.3	55	*	55	*	55	*														
TC-12B			21	*	21	*	21	*														
TH-57/BC Night Vision Goggles	120	0.6	120	*	120	*	120	*														
INSTALLATION KITS N/R																						
INSTALL EQUIPMENT																						
INSTALL EQUIPMENT N/R																						
ECO																						
DATA																						
TRAINING EQUIP																						
SUPPORT EQUIP																						
ILS																						
OTHER SUPPORT																						
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	135	0.2	551	0.1	551	0.1	544	0.1														
TOTAL PROCUREMENT	270	1.1	1,102	.1	1,102	.1	1,088	.1														

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

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: T-44A, TH-57B/C, TC-12B, T-34C, T-39G/N, T-2C MODIFICATION TITLE: TRAINER LEGACY A/C FAA(OSIP 006-05)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: CONTRACTOR FIELD MOD TEAM

ADMINISTRATIVE LEADTIME: Various Months PRODUCTION LEADTIME: Various Months

CONTRACT DATES: FY 2006 Various FY 2007 Various FY 2008 Various FY 2009 Various

DELIVERY DATE: FY 2006 Various FY 2007 Various FY 2008 Various FY 2009 Various

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY (135) kits	135	0.2																				
FY 2006 (551) kits			551	0.1																		
FY 2007 (551) kits					551	0.1																
FY 2008 (544) kits							544	0.1														
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
FY 2012 () kits																						
FY 2013 () kits																						
TO COMPLETE (904) kits																						
Total	135	0.2	551	0.1	551	0.1	544	0.1														

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	135	137	137	137	140	137	137	137	140	136	136	136	136								
Out	135	137	137	137	140	137	137	137	140	136	136	136	136								

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Totals may not add due to rounding

Exhibit P-3a

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.

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)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
Install Kits							2	0.8	10	2.9												
INSTALLATION KITS N/R						0.7		1.6														
INSTALL EQUIPMENT																						
Equipment							2	*	10	*												
INSTALL EQUIPMENT N/R																						
ECO																						
DATA								0.1		*												
TRAINING EQUIP								2.7		2.1												
SUPPORT EQUIP																						
ILS																						
OTHER SUPPORT						1.5		0.8		0.6												
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST							2	0.2	10	0.8												
TOTAL PROCUREMENT						2.2	6	6.2	30	6.5												

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

Totals may not add due to rounding

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: TH-57B/C MODIFICATION TITLE: TH-57 SAFETY UPGRADE(OSIP 006-07)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Concurrent with ACI or Drop-in at CLS Depot Facility

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 3 Months

CONTRACT DATES: FY 2006 FY 2007 FY 2008 Oct-07 FY 2009 Oct-08

DELIVERY DATE: FY 2006 FY 2007 FY 2008 Jan 08 FY 2009 Jan 09

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY () kits																						
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 (2) kits							2	0.2														
FY 2009 (10) kits									10	0.8												
FY 2010 (20) kits																						
FY 2011 (21) kits																						
FY 2012 (24) kits																						
FY 2013 (24) kits																						
TO COMPLETE (21) kits																						
Total							2	0.2	10	0.8												

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		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				
Out											2				3	3	4				

	FY 2011				FY 2012				FY 2013					
	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Total
In														
Out														

Exhibit P-3a

MODIFICATION TITLE: T44 WING WIRING(OSIP 007-07)

MODELS OF SYSTEMS AFFECTED: T-44A/C TYPE MODIFICATION: Safety

DESCRIPTION / JUSTIFICATION: The NAVAIR Wiring System Team, AIR-4.4.4.3, completed a Wiring Integrity Study on the T-44A in FY02 and identified that the aircraft wiring, outside the pressure vessel, has deteriorated to an unacceptable condition. It was recommended that the wiring in the wings, from pressure vessel outward (including the engines) be replaced. Current Navy long-term plans are to operate the T-44A aircraft until the year 2025. In order to safely and economically maintain aircraft availablity and PTR, It is necessary to replace the wiring. Note that aircraft designated T-44A are redesignated T-44C upon completion of Avionics Obsolescences (OSIP 005-04) Modifications.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: The wings are commercially available, non-developmental items (NDI) and will be installed during ACI by the commercial contractor.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
Wing Wiring Kits					7	0.2	11	0.4	11	0.4												
INSTALLATION KITS N/R					3	0.1																
INSTALL EQUIPMENT																						
INSTALL EQUIPMENT N/R																						
ECO																						
DATA						0.1																
TRAINING EQUIP																						
SUPPORT EQUIP						*																
ILS																						
OTHER SUPPORT																						
INTERIM CONTRACTOR SUPPORT						0.1		0.1		0.1												
INSTALLATION COST					10	0.1	11	0.2	11	0.2												
TOTAL PROCUREMENT					20	.7	22	.7	22	.7												

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

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: T44 WING WIRING(OSIP 007-07) MODIFICATION TITLE: T44 WING WIRING(OSIP 007-07)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Concurrent with ACI or as a Drop-in Modification at CLS Contractor Depot Facility

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 1 Months

CONTRACT DATES: FY 2006 FY 2007 Oct-06 FY 2008 Oct-07 FY 2009 Oct-08

DELIVERY DATE: FY 2006 FY 2007 Nov 06 FY 2008 Nov 07 FY 2009 Nov 08

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY () kits																						
FY 2006 () kits																						
FY 2007 (10) kits					10	0.1																
FY 2008 (11) kits							11	0.2														
FY 2009 (11) kits									11	0.2												
FY 2010 (11) kits											11	0.2										
FY 2011 (11) kits													11	0.3								
FY 2012 () kits																						
FY 2013 () kits																						
TO COMPLETE																						
Total					10	0.1	11	0.2	11	0.2	11	0.2	11	0.3								

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In						3	3	3	1	3	3	3	2	3	3	3	2				
Out						3	3	3	1	3	3	3	2	3	3	3	2				

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

P-40											DATE: February 2007	
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy / APN5 Aircraft Modifications**							P-1 ITEM NOMENCLATURE **055600, C-2A(R) Series Modification**					
Program Element for Code B Items:							Other Related Program Elements					
	PRIOR YEARS	ID Code	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
QUANTITY												
COST (In Millions)	268.5	A	30.7	37.0	32.4	23.3	19.5	6.1	6.2	6.3	16.4	446.7

DESCRIPTION:
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 in FY 2008 is to continue procurement efforts for the C-2A(R) SLEP and to begin work on the Critical Components Program. Critical Components are composed of Alighting & Landings, Avionics Upgrades, Engine Power & Propulsion, Hydraulic's, and Structural/Pressurization Engineering Change Proposals (ECPs).

OSIP No. / DESCRIPTION	PRIOR YEARS	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
024-94 C-2A(R) SLEP	268.5	30.7	31.5	30.3	20.7	15.3	3.2	4.0	5.7	16.4	426.5
011-07 CRITICAL COMPONENTS			5.5	2.1	2.7	4.2	2.9	2.2	0.6		20.1
TOTAL	268.5	30.7	37.0	32.4	23.3	19.5	6.1	6.2	6.3	16.4	446.7

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

Totals may not add due to rounding
DD Form 2454, Jun 86

Exhibit P-3a

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, Outer Wing Panel Enhancements, and NP-2000 (8 bladed propeller).

Repeatedly, C-2A(R) Greyhound elevator trim actuators have failed in flight and on deck, causing the aircraft to go into an immediate nose down flight profile. In some cases, the aircraft has lost half its altitude before control was regained. The community assesses this risk as potentially catastrophic. Failure of the elevator trim actuator occurs when an internal thrust bearing fails, allowing the rod end to separate from the actuator housing, resulting in an abrupt nose down trim. Safety ECP (NI 1004-04 Trim Actuator) provides a hardware correction by opening the elevator trim actuator, changing the bushing and other component parts. Naval Inventory Control Point (NAVICP), utilizing Navy Working Capital Fund (NWCF) funds bought 36 spare kits (FY-05) and 20 spare kits (FY-06) which are installed with this OSIP.

Global War on Terrorism (GWOT) efforts: "C-2A(R) Center Wing Section (CWS) Hinge Fittings ($1.0M)" and "C-2A(R) Structural Data Recording System ($.950M)" have been added to Installation Kits N/R in

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Development and Operational Testing (DT and OT) have been completed for the CAINS II, L-Probe, Structures, Rewire, and ARC-210 efforts included in this OSIP. DT and OT for NP2000 will complete in FY 2007. Aircraft Rewire effort experienced technical difficulties during initial validation process and program was restructured resulting in a 2 year slip. Procurement of kits commenced in FY07. 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.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
ARC-210	35	3.0																				
CAINS II (AFC-156)	36	2.3																				
INTERIM AFC	5	0.3																				
INTERIM AFC-DERF	2	0.1																				
L-PROBE (AFC-161)	36	0.3																				
NP2000	8	1.0			4	0.3	10	0.7														
OWP CONVERSION (AYC-A)	19	3.1																				
OWP ENHANCEMENT (AFC-378)	41	5.4	8	0.8	10	1.0	3	0.3	3	0.3												
OWP ENHANCEMENT (AFC-Y)	4	10.8																				
REWIRE (AFC-162)	8	8.2	5	2.8	4	2.3	4	2.4	5	3.1												
REWIRE (AFC-162)-DERF	2	1.7																				
STRUCTURE (AFC-171)-DERF	1	0.4																				
STRUCTURE KIT (AFC-171)	17	5.9	5	1.6	4	1.3	5	1.7	2	0.7												
TRIM ACTUATOR	60	*	10	*																		
INSTALLATION KITS N/R	5	41.1		3.7	1	1.8		0.1														
INSTALL EQUIPMENT																						
CAINS II B KITS	50	6.1																				
INSTALL EQUIPMENT N/R		4.2																				
ECO																						
DATA		14.0		0.5		0.4		0.2														
TRAINING EQUIP		6.6				1.5		1.5														
SUPPORT EQUIP		3.1		0.2																		
ILS		5.2		0.9		0.7		2.0		0.8												
OTHER SUPPORT		110.4		10.2		9.9		7.2		4.5												
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	262	35.4	42	10.0	17	12.3	28	14.3	21	11.3												
TOTAL PROCUREMENT		268.5		30.7		31.5		30.3		20.7												

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

Totals may not add due to rounding

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: C-2A(R) Aircraft

MODIFICATION TITLE: C-2A(R) Blk Upgrade/Service Life Extension Program (SLEP)(OSIP 024-94) -Structures Kit (AFC-171)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Current w/SDLM

ADMINISTRATIVE LEADTIME: 1 Months

PRODUCTION LEADTIME: 10 Months

CONTRACT DATES: FY 2006 Oct 05 FY 2007 Oct 06 FY 2008 Oct 07 FY 2009 Oct 08

DELIVERY DATE: FY 2006 Aug 06 FY 2007 Aug 07 FY 2008 Aug 08 FY 2009 Aug 09

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (17) kits	14	16.4	3	3.3																		
FY 2006 (5) kits					5	5.6																
FY 2007 (4) kits							4	4.6														
FY 2008 (5) kits							1	1.1	4	4.7												
FY 2009 (2) kits																						
FY 2010 () kits																						
FY 2011 () kits																						
FY 2012 () kits																						
FY 2013 () kits																						
TO COMPLETE () kits																						
Total	14	16.4	3	3.3	5	5.6	5	5.7	4	4.7												

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		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	2	1	1	1	1	1	2	1	1	1	1				
Out	14					1		1	1	1	2	1	1	1	1	1	2	1	1	1	1

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: C-2A(R) Aircraft

MODIFICATION TITLE: C-2A(R) Blk Upgrade/Service Life Extension Program (SLEP)(OSIP 024-94) -Rewire

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Current w/SDLM

ADMINISTRATIVE LEADTIME: 1 Months

PRODUCTION LEADTIME: 14 Months

CONTRACT DATES: FY 2006 Oct 05 FY 2007 Oct 06 FY 2008 Oct 07 FY 2009 Oct 08

DELIVERY DATE: FY 2006 Dec 06 FY 2007 Dec 07 FY 2008 Dec 08 FY 2009 Dec 09

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (8) kits *	**5	0.9	3	4.7																		
FY 2006 (5) kits					4	4.2	1	1.1														
FY 2007 (4) kits							3	3.2	1	1.1												
FY 2008 (4) kits									3	3.3												
FY 2009 (5) kits																						
FY 2010 () kits																						
FY 2011 () kits																						
FY 2012 (3) kits																						
FY 2013 (2) kits																						
TO COMPLETE (6) kits																						
Total	5	0.9	3	4.7	4	4.2	4	4.3	4	4.4												

*2 Kits purchased in prior years no longer reflect current design and could not be used

**3 Kits were used for Prototype, Validation and Verification

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	5			1	2	1	1	1	1	1	1	1	1	1	1	1	1				
Out	3	1		1				1	2	1	1	1	1	1	1	1	1	1	1	1	1

	FY 2011				FY 2012				FY 2013					
	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Total
In														
Out														

Totals may not add due to rounding

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: C-2A(R) Aircraft

MODIFICATION TITLE: C-2A(R) Blk Upgrade/Service Life Extension Program (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 2006 Oct 05 FY 2007 Oct 06 FY 2008 Oct 07 FY 2009 Oct 08

DELIVERY DATE: FY 2006 Feb 06 FY 2007 Feb 07 FY 2008 Feb 08 FY 2009 Feb 09

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (41) kits	35	8.7	6	1.9																		
FY 2006 (8) kits					8	2.5																
FY 2007 (10) kits							10	3.2														
FY 2008 (3) kits									3	1.0												
FY 2009 (3) kits																						
FY 2010 () kits																						
FY 2011 () kits																						
FY 2012 () kits																						
FY 2013 () kits																						
TO COMPLETE () kits																						
Total	35	8.7	6	1.9	8	2.5	10	3.2	3	1.0												

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	35		2	2	2		3	2	3		3	4	3		1	1	1				
Out	35			2	2	2		3	2	3		3	4	3		1	1	1			

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Totals may not add due to rounding

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: C-2A(R) Aircraft MODIFICATION TITLE: C-2A(R) Blk Upgrade/Service Life Extension Program (SLEP)(OSIP 024-94) - NP2000

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Current w/SDLM Drive in Mod

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2006 Oct 05 FY 2007 Oct 06 FY 2008 Oct 07 FY 2009

DELIVERY DATE: FY 2006 Oct 06 FY 2007 Oct 07 FY 2008 Oct 08 FY 2009

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (8) kits	*1				**2		5	0.6														
FY 2006 (0) kits																						
FY 2007 (4) kits							4	0.5														
FY 2008 (10) kits									10	1.2												
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
FY 2012 () kits																						
FY 2013 () kits																						
TO COMPLETE (13) kits																						
Total	1				2		9	1.1	10	1.2												

* Prototype Kit

** Kits are Validation & Verification Kits

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		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	2	3	3	3	3	2	2				
Out	1							1	1		1	2	3	3	3	3	2	2			

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: C-2A(R) Aircraft

MODIFICATION TITLE: C-2A(R) Blk Upgrade/Service Life Extension Program (SLEP)(OSIP 024-94) - Trim Actuator

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Depot Field Mod Team

ADMINISTRATIVE LEADTIME: 9 Months

PRODUCTION LEADTIME: 1 Months

CONTRACT DATES: FY 2006 Jul 06 FY 2007 FY 2008 FY 2009

DELIVERY DATE: FY 2006 Aug 06 FY 2007 FY 2008 FY 2009

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (96) kits	96	0.7																				
FY 2006 (30) kits			30	0.2																		
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
FY 2010 () kits																						
FY 2011 () kits																						
FY 2012 () kits																						
FY 2013 () kits																						
TO COMPLETE () kits																						
Total	96	0.7	30	0.2																		

NOTE: Quantities are higher than kit purchases due to safety forced retrofit of spares.

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	96				30																
Out	96					30															

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Totals may not add due to rounding

Exhibit P-3a

MODIFICATION TITLE: C-2A(R) CRITICAL COMPONENTS (OSIP 011-07)

MODELS OF SYSTEMS AFFECTED: C-2A(R) Aircraft TYPE MODIFICATION: MISSION PERFORMANCE ENHANCEMENTS

DESCRIPTION / JUSTIFICATION:

The C-2A(R) Service Life Extension Program (SLEP) extends the Navy's Carrier Onboard Delivery (COD) capability beyond current projected service life. With this longer airframe life, problems with other non-SLEP systems require upgrade/modifications. Commencing in FY2007 and out, this OSIP procures a portion of the Critical Components avionics, hydraulics, structural or power and propulsion subsystems.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
ALIGHTING & LANDING					1	*	4	0.1	7	0.3												
AVIONICS UPGRADE					1	0.2	4	0.7	7	1.3												
ENGINE POWER & PROPULSION					4	*	7	0.1	8	0.1												
HYDRAULIC					4	*	7	*	8	*												
STRUCTURAL/PRESSURIZATION					4	0.1	7	0.2	8	0.2												
INSTALLATION KITS N/R					2	2.2																
INSTALL EQUIPMENT																						
INSTALL EQUIPMENT N/R																						
ECO																						
DATA						1.5		0.1		*												
TRAINING EQUIP																						
SUPPORT EQUIP																						
ILS						0.2		0.1		0.1												
OTHER SUPPORT						1.3		0.5		0.4												
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST							4	0.2	6	0.3												
TOTAL PROCUREMENT						5.5		2.1		2.7												

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

INSTALLATION KITS N/R includes Val/Ver kits and installs

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: C-2A(R) Aircraft MODIFICATION TITLE: C-2A(R) CRITICAL COMPONENTS (OSIP 011-07) - Alighting & Landing

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Field Mod Team (FMT)

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 3 Months

CONTRACT DATES: FY 2006 FY 2007 Mar 07 FY 2008 Jan 08 FY 2009 Jan 09

DELIVERY DATE: FY 2006 FY 2007 Jun 07 FY 2008 Apr 08 FY 2009 Apr 09

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS () kits																						
FY 2006 () kits																						
FY 2007 (1) kits					1	*																
FY 2008 (4) kits							2	0.1	2	0.1												
FY 2009 (7) kits									1	*												
FY 2010 (10) kits																						
FY 2011 (7) kits																						
FY 2012 (6) kits																						
FY 2013 () kits																						
TO COMPLETE () kits																						
Total					1	*	2	0.1	3	0.1												

Note: *FY07 is a Validation/Verification
INSTALLATION KITS N/R includes Val/Ver kits and installs

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	0							1				1	1		1	1	1				
Out	0								1				1	1		1	1	1			

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Totals may not add due to rounding

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: C-2A(R) Aircraft MODIFICATION TITLE: C-2A(R) CRITICAL COMPONENTS (OSIP 011-07) - Avionics Upgrade

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Depot Field Mod Team

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 3 Months

CONTRACT DATES: FY 2006 FY 2007 Mar 07 FY 2008 Jan 08 FY 2009 Jan 09

DELIVERY DATE: FY 2006 FY 2007 Jun 07 FY 2008 Apr 08 FY 2009 Apr 09

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS () kits																						
FY 2006 () kits																						
FY 2007 (1) kits					1	*																
FY 2008 (4) kits							2	0.1	2	0.1												
FY 2009 (7) kits									1	0.1												
FY 2010 (10) kits																						
FY 2011 (7) kits																						
FY 2012 (6) kits																						
FY 2013 () kits																						
TO COMPLETE () kits																						
Total					1	*	2	0.1	3	0.2												

Note:*FY07 is a Validation/Verification
INSTALLATION KITS N/R includes Val/Ver kits and installs

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	0							1				1	1		1	1	1				
Out	0								1				1	1		1	1	1			

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Totals may not add due to rounding

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2007	
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy / APN5 Aircraft Modifications**							P-1 ITEM NOMENCLATURE **056000, C-130 SERIES**					
Program Element for Code B Items:							Other Related Program Elements					
	PRIOR YEARS	ID Code	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
QUANTITY												
COST (In Millions)	63.5	A	47.8	4.6	1.2	6.5	24.9	69.7	63.9	51.4	446.6	811.7

DESCRIPTION: This item funds modifications to C/KC-130 aircraft. The Lockheed C/KC-130 aircraft is a four engine, high-wing, all metal, long range, land based monoplane capable of all weather transport of cargo or personnel and in-flight refueling. There are currently 98 aircraft in the Navy and Marine Corps inventory (50 active and 48 reserve). The expected Service Life is as follows:

T/M/S	Service Date	Service Life	Expected Life
C-130T	10/91 - 11/95	450 mos.	2028-2032
KC-130F	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

OSIP No. / DESCRIPTION	PRIOR YEARS	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
020-03 ASE	27.4	34.8									62.2
013-04 AVIONICS MODERNIZATION PROGRAM						1.5	39.7	51.7	51.4	418.1	562.4
021-04 ELECTRONIC PROPELLER CONTROL SYSTEM	4.2		1.1							28.5	33.8
010-06 C-130J CNS/ATM		13.0	3.5		5.0	22.2	29.9	12.2			85.9
007-08 KC-130 VARIABLE SPEED DROGUE				1.2	1.5	1.1					3.9
TOTAL	31.6	47.8	4.6	1.2	6.5	24.9	69.7	63.9	51.4	446.6	748.2

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

Totals may not add due to rounding
DD Form 2454, Jun 86

Exhibit P-3a

MODIFICATION TITLE: AIRCRAFT SURVIVABILITY EQUIPMENT (ASE) (OSIP 020-03)

MODELS OF SYSTEMS AFFECTED: C/KC-130F/R/T/J TYPE MODIFICATION: Safety

DESCRIPTION / JUSTIFICATION:Subject funding is being used to improve aircraft survivability by upgrading or replacing certain Defensive Electronic Countermeasures (DECM), installing Fuel Tank Foam, and installing ballistic armor protection.DECM Upgrades/Replacements: the existing AN/AAR-47 Missile Warning System (MWS), AN/ALQ-157(V)1 Infrared Countermeasures (IRC) system, and replacing the AN/ALE-39 Countermeasure Dispensing System (CMDS).The AN/AAR-47(V)2 (MWS) improves performance over the existing system in the following areas: reduction in signal noise and false alarms, increased sensor sensitivity and range, greater detection efficiency, extends the overall temperature range sensed, and improves reliability. The new AN/ALQ-157(V)2 IRCM provides many reliability and maintainability enhancements.The new AN/ALE-47 CMDS is an integrated, threat adaptive, reprogrammable, computer-controlled expendable dispensing system.Installation of fuel tank foam in the main, external, and auxiliary fuel tanks reduces the susceptibility of loss or severe damage to the aircraft and loss of life from fuel fire/tank rupture due to surface-to-air or air-to-air fire. The installation of ballistic armor provides crew protection and enhances aircraft survivability.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
47(5F/7R/8KT)	57	3.6																				
KC-130 DECM A-KIT	5	4.0	5	14.7																		
KC-130J ARMOR A-KIT	21	*																				
KC-130T NVL KIT			6	6.7																		
INSTALLATION KITS N/R		1.4																				
INSTALL EQUIPMENT																						
AAR-47 B-KIT			5	0.3																		
ALE-47 B KIT			5	0.3																		
C-130 APR-39 B KIT			5	1.0																		
C-130T ARMOR	28	1.3																				
C-130T FUEL FOAM TANK KIT			20	0.7																		
KC-130F/R/T FUEL TANK FOAM KITS	25	0.9	9	0.3																		
KC-130J ARMOR B-KIT	21	2.5	4	0.6																		
INSTALL EQUIPMENT N/R				1.7																		
ECO																						
DATA		0.4		0.2																		
TRAINING EQUIP		0.2																				
SUPPORT EQUIP		0.4																				
ILS		1.0		1.0																		
OTHER SUPPORT		2.0		2.5																		
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	50	9.7	29	4.9																		
TOTAL PROCUREMENT		27.4		34.8																		

1. Asterisk (*) indicates amount value less than $51K
2. DECM and NVL Efforts are utilizing turnkey procurement and installation strategy to shorten Production Lead Time

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: C/KC-130F/R/T/J MODIFICATION TITLE: AIRCRAFT SURVIVABILITY EQUIPMENT (ASE) (OSIP 020-

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Drive-In Modification

ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 5 Months

CONTRACT DATES: FY 2006 Mar 06 FY 2007 FY 2008 FY 2009

DELIVERY DATE: FY 2006 Aug 06 FY 2007 FY 2008 FY 2009

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (50) kits	24	9.7	26																			
FY 2006 (44) kits			29	4.9																		
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
Total	24	9.7	55	4.9																		

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	24	8	9	4	8	4	7	6	7	2											
Out	20	4	8	9	6	9	6	7	6	4											

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Totals may not add due to rounding

Exhibit P-3a

MODIFICATION TITLE: ELECTRONIC PROPELLER CONTROL SYSTEM (EPCS) (OSIP 021-04)

MODELS OF SYSTEMS AFFECTED: C-130T, KC-130T TYPE MODIFICATION: READINESS IMPROVEMENT

DESCRIPTION / JUSTIFICATION: The USMC KC-130 and Navy C-130T aircraft currently operate with a hydro-mechanical valve housing designed in the 1950's. This component controls the pitch angle of the propeller blades and it is consistently in the top three readiness degraders and is the number one reason for in-flight aborts. The current valve housing is a significant readiness degrader and a high manhour unscheduled maintenance driver for the fleet. EPCS has the following OAG prioritites: #4 Navy OAG and #9 USMC OAG.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: This OSIP represents the first recurring installation. This OSIP affects 20 C-130T (Reserve) aircraft and 27 KC-130T (active) aircraft.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
EPCS KITS (47 T)	2	1.6			1	0.7																
INSTALLATION KITS N/R		0.5																				
INSTALL EQUIPMENT																						
INSTALL EQUIPMENT N/R																						
ECO																						
DATA		0.3																				
TRAINING EQUIP																						
SUPPORT EQUIP																						
ILS																						
OTHER SUPPORT		1.4				0.2																
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	2	0.4			1	0.2																
TOTAL PROCUREMENT		4.2				1.1																

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: C-130T, KC-130T MODIFICATION TITLE: ELECTRONIC PROPELLER CONTROL SYSTEM (EPCS) (OSIP 021-04)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: COMMERCIAL FMT

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 3 Months

CONTRACT DATES: FY 2006 FY 2007 Mar 07 FY 2008 FY 2009

DELIVERY DATE: FY 2006 FY 2007 Jun 07 FY 2008 FY 2009

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (2) kits	2	0.4																				
FY 2006 () kits																						
FY 2007 (1) kits					1	0.2																
FY 2008 () kits																						
FY 2009 () kits																						
Total	2	0.4			1	0.2																

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	2						1														
Out	2							1													

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Exhibit P-3a

MODIFICATION TITLE: C-130J CNS/ATM (OSIP 010-06)

MODELS OF SYSTEMS AFFECTED: KC-130J TYPE MODIFICATION: Safety

DESCRIPTION / JUSTIFICATION:Objective of the Communication Navigation Surveillance/Air Traffic Management (CNS/ATM) OSIP is to preserve utilization of current KC-130J capabilities world-wide by meeting International Civil Aviation Organization (ICAO) Air Traffic Management mandates through a series of commercial procurements and post-production retrofit installations. ICAO mandates elementary Mode-S, enhanced Mode-S and Required Navigation Performance/Area Navigation (RNP/RNAV) capabilities in the European Flight Information Region (FIR) starting in FY06, followed by the requirement of enhanced Mode-S, which is the Automatic Dependent Surveillance-Broadcast (ADS-B) comm-link, and will be required in FY07. This OSIP will upgrade the KC-130J to elementary Mode-S, enhanced Mode-S and RNP/RNAV through two separate initiatives. The first and least intensive, elementary Mode-S begins in FY06, and the second, enhanced Mode-S and RNP/RNAV solution, which is software intensive and highly complicated, will begin 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. This OSIP affects all 51 KC-130J aircraft.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Lockheed Martin has been 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. The new Software version 5.5 will be available FY07. A second ECP will be requested of Lockheed Martin to incorporate the remaining requirements; RNP/RNAV and Military Embedded GPS Inertial (EGI) with Selective Availability Anti Spoofing Module (SAASM) and Receiver Autonomous Integrity Monitoring (RAIM). The new Identification Friend or Foe (IFF) upgrade program is in progress, with Mission Computer upgrades to begin FY06. Reduced Vertical Separation Minima (RVSM) certification requires a new Static Source Error Correction for the Air Data Computer scheduled for FY06. All kits are Commercial Off The Shelf (COTS) equipment.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
VDL-3 AND RNP/RNAV SYSTEM																						
INSTALLATION KITS N/R																						
INSTALL EQUIPMENT																						
MODE (S) SYSTEM				13.0					15	1.1												
INSTALL EQUIPMENT N/R						2.1				2.1												
ECO										0.2												
DATA						0.1																
TRAINING EQUIP																						
SUPPORT EQUIP										0.3												
ILS						0.4				0.5												
OTHER SUPPORT						0.9				0.9												
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST																						
TOTAL PROCUREMENT				13.0		3.5				5.0												

1. FY06 effort to support Block 6.5 (Mode S) is a turnkey effort. Installations will be done at the "O" level, No installation costs are associated with this effort.

Totals may not add due to rounding

Exhibit P-3a

MODIFICATION TITLE: KC-130 VARIABLE SPEED DROGUE (OSIP 007-08)

MODELS OF SYSTEMS AFFECTED: KC-130F/R/T/J TYPE MODIFICATION: Performance Enhancement

DESCRIPTION / JUSTIFICATION: The KC-130 is a 4 engine, high-wing, long range, land based monoplane. The primary mission of the KC-130 is to provide aerial refueling for both high speed fixed wing aircraft and low speed rotary wing aircraft. Currently, a ground change of the refueling drogue is required for low speed and high speed refueling operations. The objective of the USMC Variable Speed Drogue (VSD) OSIP is to equip the KC-130 fleet with a Variable Speed Drogue capable of refueling both high speed and low speed aircraft with the same drogue. The VSD's required capability will enable the KC-130 to aerial refueling throughout the 105-250 KTS TAS range without changing drogues. This will support the low speed, high speed and V-22 single engine failure aerial refueling requirements.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Currently the Variable Speed Drogue is in Phase 2 prototyping with testing expected to be completed by the end of FY07. Production and modification will commence in FY08.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
INSTALLATION KITS N/R																						
INSTALL EQUIPMENT																						
KC-130 VSD B KITS							30	1.0	38	1.5												
INSTALL EQUIPMENT N/R																						
ECO																						
DATA								0.2														
TRAINING EQUIP																						
SUPPORT EQUIP																						
ILS																						
OTHER SUPPORT																						
INTERIM CONTRACTOR SUPPORT																						
TOTAL PROCUREMENT							30	1.2	38	1.5												

1. Installation of the new Variable Speed Drogue will be a "O" level change of the refueling basket. No installation costs are associated with this effort.

Totals may not add due to rounding

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2007	
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy / APN5 Aircraft Modifications**							P-1 ITEM NOMENCLATURE **056100, Fleet Electronic Warfare Support Group (FEWSG)**					
Program Element for Code B Items:							Other Related Program Elements					
	PRIOR YEARS	ID Code	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
QUANTITY												
COST (In Millions)	62.0	A	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.7	3.7	71.3

DESCRIPTION: This line item funds modifications to several aircraft and equipment. The overall goal of the budgeted modificaiton is to accurately simulate the known and postulated electronic warfare characteristics and tactics of different threats for fleet training. OSIP 119-83 FEWSG equipment, AN/DLQ-3, AN/AST-6(V), AN/ALQ-167 are installed and/or carried aboard the F/A-18, EA-6B, and on the Gulfstream G-1. OSIP 119-83 FEWSG equipment was previously installed on the F-14 prior to deactivation.

OSIP No. / DESCRIPTION	PRIOR YEARS	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
119-83 AN/ALQ-167/AST-4 POD	62.0	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.7	3.7	71.3
TOTAL	62.0	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.7	3.7	71.3

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

Totals may not add due to rounding
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Exhibit P-3a

MODIFICATION TITLE: AN/AST-6(V), AN/DLQ-3, AN/ULQ-21 & AN/ALQ-167 (OSIP 119-83)

MODELS OF SYSTEMS AFFECTED: N/A TYPE MODIFICATION: RELIABILITY,MAINTAINABILITY,CAPABILITY

DESCRIPTION/JUSTIFICATION: The AN/ALQ-167 pods electronically simulate threat airborne radar jamming systems. The AN/ALQ-167 pods internal components are also installed internally in aircraft. When these components are utilized in this type of installation, they are nomenclatured AN/DLQ-3 and AN/ULQ-21. The AN/AST-6(V) pod electronically simulates several types of threat anti-ship missile seeker systems. These podded devices were first introduced into the fleet in 1980 and proved exceptionally useful in readiness exercises. The AN/ALE-43(V) Countermeasures, Chaff Dispenser Set (CCDS) is an integral, high capacity, bulk chaff cutting/dispensing system used for self-protection, fleet screening, corridor seeking and training operations. This program provides for the procurement and continued support of additional quantities of these pods for use by logistics support squadrons and other operational fleet units. No aircraft modifications are required to use these pods.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The objective for the AN/ALQ-167 is 186 pods, there are currently 146. There are 25 AN/AST-6(V) production assets. The objective is to achieve a total of 50 pods. The AN/ALQ-167 avionics are being upgraded. When these upgraded avionics are internally installed in aircraft, they are nomenclatured as AN/ULQ-21 systems.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
INSTALLATION KITS N/R																						
INSTALL EQUIPMENT																						
INSTALL EQUIP (B Kits)	1,015	51.4	2	0.1	2	0.1	2	0.1	2	0.1												
INSTALL EQUIPMENT N/R		0.5		0.0		0.0		0.1		0.1												
ECO																						
ECO		2.0		0.1																		
DATA		0.1		0.0		0.0		0.0		0.0												
TRAINING EQUIP		0.6		0.0		0.0		0.0		0.0												
SUPPORT EQUIP		5.2																				
ILS		1.0		0.0		0.0		0.0		0.0												
OTHER SUPPORT		1.1		0.5		0.5		0.5		0.5												
INTERIM CONTRACTOR SUPPORT																						
TOTAL PROCUREMENT	1,015	62.0	2	0.7	2	0.6	2	0.7	2	0.7												

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2007	
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy / APN5 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	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
QUANTITY												
COST (In Millions)	59.5	A	27.1	30.2	20.9	18.1	18.5	18.8	19.2	19.5	85.8	317.7

DESCRIPTION: This line item funds modifications to the following cargo and transport aircraft: (C-9B/DC-9B, C-40A, C-20A/D/G, C-37A/B, UC-35C/D, RC-12F/M, UC-12B/F/M, NC-12B and EC/RC-26D.

The C-9B/DC-9B Skytrain II, C-40A Clipper, C-20A/D/G Gulfstream IV, C-37A/B Gulfstream V and UC-35C/D Cessna Citation, are commercial twin jet transport aircraft that provide time-critical medium lift logistic support for the fleet combatant commanders. C-9/DC-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. 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 and C-37 provides 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.

OSIP No. / DESCRIPTION	PRIOR YEARS	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
071-86 FAA CONFIGURATION UPDATES	20.8	*	*	*	*	*	*	*	*		21.0
014-98 C-12 FLT SAFETY UPGRADE	27.9	0.6									28.5
012-04 CNS/ATM	11.1	19.0	30.2	20.9	18.1	18.4	18.8	19.2	19.5	85.8	261.0
016-06 UC-35 AIRCRAFT SURVIVABILITY EQUIPMENT		7.5									7.5
TOTAL	59.8	27.1	30.2	20.9	18.1	18.5	18.8	19.2	19.5	85.8	318.0

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

Totals may not add due to rounding
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Exhibit P-3a

MODIFICATION TITLE: FEDERAL AVIATION ADMINISTRATION (FAA) CONFIGURATION UPDATES (OSIP 071-86)

MODELS OF SYSTEMS AFFECTED: CARGO TRANSPORT A C SERIES TYPE MODIFICATION: SAFETY/RELIABILITY

DESCRIPTION / JUSTIFICATION: Federal Aviation Regulations require manufacturers of commercial aircraft and associated systems/subsystems to investigate discrepant conditions, failures, and potential safety problems reported by all operators. The results of these investigations with recommended corrective action are reviewed/approved by the FAA and Navy and provided to all operators as service bulletins. Each service bulletin is a complete technical directive that provides corrective change information or detailed modification instructions. To ensure safe, reliable, FAA/Navy certified aircraft and to provide a program that will assure continued life extension at minimum cost, the Navy must maintain configuration and integrity compatible with FAA certified commercial models by incorporation of applicable service bulletins. The incorporation of certain service bulletins also serves to preclude extensive repairs/repetitive inspections. Crew equipment requirements in accordance with FAA directives and Navy requirements will be incorporated to ensure maximum safety in case of emergency. Specific modifications budgeted in this OSIP include the incorporation of C-9B/DC-9, C-20, C-26, UC-35, C-37, C-40 and C-12 FAA Bulletins and Directives.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Service Bulletins are reviewed for possible incorporation on an as required basis. Prototype verification has been previously accomplished and approved by the FAA.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
C-12 PROPELLERS	74	1.0																				
C-20	298	1.0																				
C-26	11	0.4																				
C-9	282	5.2																				
C-9 ENGINES	13	0.2																				
C-9 HUSH KITS	1	1.2																				
INSTALLATION KITS N/R		2.7																				
INSTALL EQUIPMENT																						
INSTALL EQUIPMENT N/R																						
ECO																						
ECO		0.3		*		*		*		*												
DATA		0.3																				
TRAINING EQUIP		0.2																				
SUPPORT EQUIP																						
ILS		*																				
OTHER SUPPORT		0.5																				
INTERIM CONTRACTOR SUPPORT		0.2																				
INSTALLATION COST	679	7.6																				
TOTAL PROCUREMENT		20.8		*		*		*		*												

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

Exhibit P-3a

MODIFICATION TITLE: C-12 FLT SAFETY UPGR (OSIP 014-98)

MODELS OF SYSTEMS AFFECTED: CARGO TRANSPORT A C SERIES TYPE MODIFICATION: SAFETY/RELIABILITY

DESCRIPTION / JUSTIFICATION: The crash of a U.S. Air Force CT-43 while flying a Non-Directional Radio Beacon (NDB) approach resulted in a Department of Defense initiative to upgrade flight safety systems as soon as possible in all passengers carrying aircraft. This OSIP was established to ensure compliance with this initiative on 81 C-12 model aircraft and identified flight safety systems required to be upgraded, Flight Safety Upgrade (FSU). FSU upgrade replaced existing flight management system, weather radar, radar altimeter and added TCAS and TAWS. Initiatives for the last two years have lead to divesting of CONUS based UC-12B aircraft. The number of UC-12 aircraft to receive FSU has dropped from the original 81 to 44. Further, planned FSU installations have over run upgrade efforts under OSIP 12-04, CNS/ATM. To maximize fleet aircraft availability, minimize impact to planned fleet operations and minimize upgrade costs; a decision was made in FY04 to combine the installation of the remaining seven FSU installations for the C-12F with planned Block 1 CNS/ATM installations under OSIP 12-04. Efforts to be funded under this OSIP will include 44 'A' and 'B' kits and 37 installations. The remaining 7 installations will be concurrent with C-12F CNS/ATM installations

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
UPGRADE	44	14.2																				
INSTALLATION KITS N/R		6.4																				
INSTALL EQUIPMENT																						
INSTALL EQUIPMENT N/R																						
ECO																						
ECO		0.3																				
DATA		0.4																				
TRAINING EQUIP		1.1																				
SUPPORT EQUIP																						
ILS		0.9																				
OTHER SUPPORT		1.4																				
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	40	3.3	4	0.6																		
TOTAL PROCUREMENT		27.9		0.6																		

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

Totals may not add due to rounding
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Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **C-12** MODIFICATION TITLE: CNS/ATM (OSIP 014-98)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **DEPOT CONTRACTOR**

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 1 Months

CONTRACT DATES: FY 2006: Dec-05 FY 2007: FY 2008: FY 2009:

DELIVERY DATE: FY 2006: Jan-06 FY 2007: FY 2008 FY 2009:

($ in Millions)

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY (40) kits	40	3.3																				
FY 2006 (4) kits			4	0.6																		
FY 2007 (0) kits																						
FY 2008 (0) kits																						
FY 2009 (0) kits																						
TOTAL	**40**	**3.3**	**4**	**0.6**																		

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	40		2	2																					
Out	40		2	2																					

	FY 2012				FY 2013				To Complete	Total	
	1	2	3	4	1	2	3	4			
In											
Out											

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

Totals may not add due to rounding
DD Form 2454, Jun 86

Exhibit P-3a

MODIFICATION TITLE: CNS/ATM (OSIP 012-04)

MODELS OF SYSTEMS AFFECTED: CARGO TRANSPORT A C SERIES TYPE MODIFICATION: SAFETY/RELIABILITY

DESCRIPTION / JUSTIFICATION: World-wide airspace congestion and communication bandwidth saturation has lead 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 above Type/Series/Models will be required to comply with the following 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, or at a minimum resulting in circuitous routing and sub optimal altitudes for fuel consumption. The following CNS-ATM mandates will be implemented in post production aircraft in this OSIP: Communications - 8.33Khz VHF channel spacing, SATCOM voice and data, Controller Pilot Data Link Communications (CPDLC), Automatic Dependent Surveillance ADS-B. Navigation – Required Navigation Performance (RNP) 10NM, 5NM, 4NM, and less than NM; Reduced Separation Minimum (RVSM); Protected-ILS; and digital navigation databases. Navigational accuracy mandate progressively tightens over time until GPS based aircraft routing, Standard Instrument Departures (SID) and Standard Terminal Arrival Routes (STARS) are implemented worldwide. This will result in a series of equipment changes. Surveillance – Enhanced Terrain Awareness Warning System (TAWS), Traffic Alert and Collision Avoidance System (TCAS), Automatic Dependent Surveillance ADS-B, Emergency Locator Transmitter (ELT) and Mode S Transponder.

To minimize the impact of successive modifications and maximize aircraft availability, a block upgrade approach has been taken during this budget submit. C-20D, C-12 and C-26 expenditures in FY04 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-20A, C-37A, C-35C, all C-26 and C-12) required the installation of a digital flight management and communication system

CNS-ATM capabilities associated with each Block Upgrade listed below:
C-9 C-9B: Block 1 - CPDLC, Mode S, TAWS Upgrade, and ELT: Block 2 - ADS-B
C-40 C-40A: Block 1 – Mode S, and TAWS Upgrade: Block 2 – CPDLC
C-20 C-20A: Block 1 – RNP-1 Flight Management System, Mode S, ELT, TAWS upgrade, DME upgrade, and CPDLC: C-20D –Block 1 Avionics Upgrade* HF Radio Upgrade*, Mode S, ELT, TAWS upgrade: Block 2 – CPDLC; C-20G – CPDLC, Mode S and TAWS upgrade
C-37 C-37A: Block 1 –RNP-1, Flight Management System, CPDLC, Mode S, and TAWS upgrade: Block 2 – ADS-B: C-37B – Block 1 Mode S, CPDLC: Block 2 – ADS-B
C-35 C-35C: Block 1 – RNP-1, Flight Management System, Mode S, ELT, DME upgrade: Block 2 – CPDLC: C-35D Block 1 – CPDLC, Mode S, and TAWS upgrade: Block 2 – ADS-B
C-26 EC/RC/UC-26D: Block 1 – TAWS* and TCAS-II*: Block 2 – RNP-1, Flight Management System, RVSM and CPDLC
C-12 C-12B: Block 1 – P-ILS*, 8.33 KHz VHF Channel Spacing*: Block 2 –SATCOM, CPDLC, RNP-1, Flight Management System, Mode S, ADS-B: C-12F Block – 1 Flight Management System, 8.33 KHz VHF Channel Spacing*, P-ILS*, RVSM, ELT and Mode S: Block 2 – SATCOM, CPDLC and ADS-B: C-12M Block 1 – 8.33 KHz Channel Spacing*, ELT, RNP-1, Flight Management System, ELT, and RVSM; Block 2 – SATCOM, CPDLC and ADS-B

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
8.33 KHz	16	0.7																				
AVIONICS UPGRADE C-20D	1	2.4																				
BLOCK 1			5	1.4	14	3.2	12	2.6	8	1.9												
BLOCK 2							2	0.5														
DATA LINK	7	0.6																				
HF RADIO UPGRADE C-20A	1	0.2					1	0.5														
P-ILS	42	0.5																				
INSTALLATION KITS N/R		2.0		4.4		14.5		3.3		0.8												
INSTALL EQUIPMENT																						
AVIONICS UPGRADE C-20D							1	0.1	1	0.1												
BLOCK 1	6	4.2	19	7.1	11	5.3	10	4.0	8	5.0												
BLOCK 2							12	1.9														
HF RADIO UPGRADE C-20A							1	0.5														
INSTALL EQUIPMENT N/R				0.3		0.6		0.5		0.2												
ECO																						
ECO								0.2		*												
DATA				1.4		0.8		0.7		1.6												
TRAINING EQUIP				0.3		0.2		0.3		0.7												
SUPPORT EQUIP				*				*		0.1												
ILS				0.3		0.3		0.6		0.9												
OTHER SUPPORT		0.3		1.1		0.7		0.8		0.9												
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	51	0.3	4	2.7	14	4.6	11	4.4	19	5.8												
TOTAL PROCUREMENT		11.1		19.0		30.2		20.9		18.1												

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

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **C-40A/C-9** MODIFICATION TITLE: CNS/ATM (OSIP 12-04)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **DEPOT CONTRACTOR**

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 1 Months

CONTRACT DATES: FY 2006: Dec-05 FY 2007: N/A FY 2008: Dec-07 FY 2009: N/A

DELIVERY DATE: FY 2006: Jan-06 FY 2007: N/A FY 2008: Jan-08 FY 2009: N/A

($ in Millions)

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2005 & PY (0) kits																						
FY 2006 (8) kits*			*																			
FY 2007 (0) kits																						
FY 2008 (12) kits									8	3.1												
FY 2009 (0) kits																						
TOTAL									**8**	**3.1**												

* FY 2006 8 kits to be installed at the organizational level. No installation cost to be incurred.

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In															3	3	2								
Out															3	3	2								

	FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4		
In										
Out										

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

Totals may not add due to rounding
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Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **C-37A** MODIFICATION TITLE: CNS/ATM (OSIP 12-04)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **DEPOT CONTRACTOR**

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 1 Months

CONTRACT DATES: FY 2006: N/A FY 2007: Dec-06 FY 2008: Dec-07 FY 2009: N/A

DELIVERY DATE: FY 2006: N/A FY 2007: Jan-07 FY 2008: Jan-08 FY 2009: N/A

($ in Millions)

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY (0) kits																						
FY 2006 (0) kits																						
FY 2007 (2) kits					2	0.2																
FY 2008 (4) kits							4	0.4														
FY 2009 (0) kits																						
TOTAL					**2**	**0.2**	**4**	**0.4**														

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In							2				4														
Out							2				4														

	FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4		
In										
Out										

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

Totals may not add due to rounding
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Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **UC-35** MODIFICATION TITLE: CNS/ATM (OSIP 12-04)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **DEPOT CONTRACTOR**

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 1 Months

CONTRACT DATES: FY 2006: N/A FY 2007: Dec-06 FY 2008: Dec-07 FY 2009: Dec-08

DELIVERY DATE: FY 2006: N/A FY 2007: Jan-07 FY 2008: Jan-08 FY 2009: Jan-09

($ in Millions)

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY (0) kits																						
FY 2006 (0) kits																						
FY 2007 (3) kits					3	1.5																
FY 2008 (1) kits							1	0.4														
FY 2009 (1) kits									1	0.4												
TOTAL					**3**	**1.5**	**1**	**0.4**	**1**	**0.4**												

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In							1	2			1				1										
Out							1	2			1				1										

	FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4		
In										
Out										

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

Totals may not add due to rounding
DD Form 2454, Jun 86

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **C-26** MODIFICATION TITLE: CNS/ATM (OSIP 12-04)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **DEPOT CONTRACTOR**

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 1 Months

CONTRACT DATES: FY 2006: Apr-06 FY 2007: Dec-06 FY 2008: Dec-07 FY 2009: Dec-08

DELIVERY DATE: FY 2006: May-06 FY 2007: Jan-07 FY 2008: Jan-08 FY 2009: Jan-09

($ in Millions)

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2005 & PY (7) kits	7	0.1																				
FY 2006 (2) kits			2	0.8																		
FY 2007 (4) kits					4	1.6																
FY 2008 (1) kits							1	0.4														
FY 2009 (1) kits									1	0.4												
TOTAL	**7**	**0.1**	**2**	**0.8**	**4**	**1.6**	**1**	**0.4**	**1**	**0.4**												

Installation Schedule

	FY 2005	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	7			2			4				1				1										
Out	7			2			4				1				1										

	FY 2012				FY 2013				To	Total
	1	2	3	4	1	2	3	4	Complete	
In										
Out										

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

Totals may not add due to rounding
DD Form 2454, Jun 86

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **C-20** MODIFICATION TITLE: CNS/ATM (OSIP 12-04)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **DEPOT CONTRACTOR**

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 1 Months

CONTRACT DATES: FY 2006: N/A FY 2007: N/A FY 2008: Dec-07 FY 2009: Dec-08

DELIVERY DATE: FY 2006: N/A FY 2007: N/A FY 2008: Jan-08 FY 2009: Jan-09

($ in Millions)

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2005 & PY (2) kits	2	0.1																				
FY 2006 (0) kits																						
FY 2007 (0) kits																						
FY 2008 (4) kits							2	1.2	2	0.2												
FY 2009 (2) kits									2	0.2												
TOTAL	**2**	**0.1**					**2**	**1.2**	**4**	**0.5**												

Installation Schedule

	FY 2005	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	2										2				4										
Out	2										2				4										

	FY 2012				FY 2013				To	Total
	1	2	3	4	1	2	3	4	Complete	
In										
Out										

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

Totals may not add due to rounding
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Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **C-12** MODIFICATION TITLE: CNS/ATM (OSIP 12-04)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **DEPOT CONTRACTOR**

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 1 Months

CONTRACT DATES: FY 2006: Dec-05 FY 2007: Dec-06 FY 2008: Dec-07 FY 2009: Dec-08

DELIVERY DATE: FY 2006: Jan-06 FY 2007: Jan-07 FY 2008 Jan-08 FY 2009: Jan-09

($ in Millions)

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2005 & PY (58) kits*	58	0.1																				
FY 2006 (3) kits			2	1.9	1	0.3																
FY 2007 (5) kits					4	1.0	1	0.7														
FY 2008 (5) kits							2	1.3	3	0.9												
FY 2009 (4) kits									2	0.6												
TOTAL	**58**	**0.1**	**2**	**1.9**	**5**	**1.3**	**3**	**2.0**	**5**	**1.5**												

*qty of 16 8.33khz Radios were installed concurrently with the 42 P-ILS systems.

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	58		2				3	2			2	1			3	2									
Out	58		2				3	2			2	1			3	2									

	FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4		
In										
Out										

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

Totals may not add due to rounding
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Exhibit P-3a

MODIFICATION TITLE: UC-35 AIRCRAFT SURVIVABILITY EQUIPMENT (OSIP 016-06)

MODELS OF SYSTEMS AFFECTED: CARGO TRANSPORT A C SERIES TYPE MODIFICATION: SAFETY/RELIABILITY

DESCRIPTION / JUSTIFICATION: Marine Forces are currently engaged in combat operations and have a stated need to utilize the UC-35 within Iraq now. Marine Corps UC-35's do not possess Aircraft Survivability Equipment (ASE). The Marine Corps maintains a UC-35 deployed presence in South West Asia, but is precluded by CMC from flying into Iraq (and other threat areas) without ASE. By equipping the UC-35 with ASE, it will be able to perform its mission of time-sensitive transport of high priority passengers and cargo in high threat environments (Iraq & other nations). This enhanced capability will reduce the amount of time required to move high priority passengers and cargo by enabling the aircraft to get closer to Marine, Joint and Coalition forces in theater. Additionally, installation of ASE will remove the requirement of this mission from our already over burdened and less-suited KC-130's. Allowing for use of the UC-35 in Iraq (and other high threat areas) by equipping it with ASE, "greatly reduces impact on KC-130 aircraft thereby allowing aircraft to perform primary mission of tactical support to the Marine Expeditionary Force." (CG III MAW 18 Jan 05).

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
ASE KIT			4	2.0																		
INSTALLATION KITS N/R				1.0																		
INSTALL EQUIPMENT																						
ASE EQUIP			4	3.0																		
INSTALL EQUIPMENT N/R				1.0																		
ECO																						
DATA																						
TRAINING EQUIP				0.2																		
SUPPORT EQUIP				0.1																		
ILS																						
OTHER SUPPORT				0.2																		
INTERIM CONTRACTOR SUPPORT																						
TOTAL PROCUREMENT			8	7.5																		

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

Totals may not add due to rounding
DD Form 2454, Jun 86

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2007	
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy / APN5 Aircraft Modifications**							P-1 ITEM NOMENCLATURE **056400, E-6 SERIES**					
Program Element for Code B Items:							Other Related Program Elements					
	PRIOR YEARS	ID Code	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
QUANTITY												
COST (In Millions)	903.3	A	11.1	58.6	126.2	106.2	112.7	127.1	125.2	116.3	230.2	1916.9

DESCRIPTION: This line item funds modifications to E-6 "Take Charge and Move Out", TACAMO aircraft. All sixteen (16) aircraft in the TACAMO fleet will receive each modification. The E-6 TACAMO is a manned airborne communications relay platform designed to provide a survivable, reliable, endurable airborne command and control communications link between the President, Secretary of Defense and U.S. strategic and non-strategic forces. The Navy and Air Force were directed to take actions necessary to incorporate Airborne Command Post (ABNCP) (OSIP 032-93) functions into the E-6A, which were completed in Nov 03. The last install to complete the additional requirements of the ADP, DAMA, Weight and Space (ADWS) Program under OSIP 032-93, occurred in Nov 06. The Multifunction Display System (MDS) (OSIP 027-99), approved as the solution to maintain worldwide deployability due to changing Communications, Navigation and Surveillance/Air Traffic Management (CNS/ATM) requirements, also completed in Nov 06. E-6 Mission Support (OSIP 007-02) corrected Follow-On Test & Evaluation (FOT&E - Sep 98) deficiencies by updating the design of and fabricating new rewind machines and purchasing "off-the-shelf" power carts to provide adequate aircraft power for full mission checkout. Mission Support will also upgrade the aircraft Frequency Reference Auto Paralleling Unit (FRAPU) to allow proper power transfer from/to ground/aircraft power and procure various ground support and Peculiar Support Equipment (PSE) for the E-6B aircraft. Safety Deficiencies (OSIP 008-02) includes a smoke detection system, replacement of the aircraft auxiliary power unit (APU) crossover and exhaust ducts (and installation of a heat shield for the APU), replacement of aircraft Kapton wiring, installation of the Crash Survivable Flight Incident Recorder (CSFIR), replacement of the Fuel Quantity Indicating System (FQIS) and replacement of the aircraft thermal blankets. It also included replacement of an uncertified Cartridge Activated Device (CAD) (explosive) for severing the Long Trailing Wire Antenna in emergencies, installation of new improved inertia reels and shoulder harnesses and replacement of unsafe fuel boost pumps and aircraft batteries and battery charging systems prone to thermal overload (completed in FY06.) Tech Insertion (OSIP 003-04) addresses obsolescence, supportability, new technologies, systems updates and interoperability issues in the areas of: Mission Computer Set (MCS) hardware, Mission Avionics Processing System (MAPS), Flight Management Computer System (FMCS), Secure Telephone Unit (STU) and the unsupportable Standard Distribution Switching Unit (SDSU). Service Life Extension Program (SLEP) (OSIP 003-07) is designed to extend the service life of the E-6B aircraft to 2040+. E-6 Mission Deficiencies Improvements (Block I), replaces the Digital Airborne Intercommunication Switching Set (DAISS) and installs an Open System Architecture that will allow low cost modifications for emerging requirements. It also replaces the Mission Computer Set, adds flat panel displays in the battle staff area and replaces the UHF C3 modem. The E-6B Mod (ADWS) and Multifunction Display System programs were restructured to increase aircraft availability, reduce fleet aircraft configurations, reduce logistics costs, increase operational flexibility, maximize production effort and allow trainer modifications to be done concurrently. Block Recapture 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. Communications (IP/T3) Upgrade (OSIP 012-07) increases communications bandwidth to 45 Mbps to support battlestaff command and control and first responder operations.

BUDGET ITEM JUSTIFICATION SHEET P-40	DATE: February 2007
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy / APN5 Aircraft Modifications**	P-1 ITEM NOMENCLATURE **056400, E-6 SERIES**
Program Element for Code B Items:	Other Related Program Elements

OSIP No. / DESCRIPTION	PRIOR YEARS	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
032-93 E-6B MOD	710.5	0.5									710.9
027-99 MULTIFUNCTION DISPLAY SYSTEM	156.1	0.6									156.6
007-02 E-6 MISSION SUPPORT	11.1		1.1	2.6	6.8	0.9					22.6
008-02 SAFETY DEFICIENCIES	5.7	2.4	4.4	15.8	16.8	8.8	11.4				65.4
003-04 TECH INSERTION	6.3	7.6	17.1	16.8	17.6	8.4	25.1	10.9	5.9		115.6
003-07 SLEP			4.5	5.4	1.8	12.7	13.0	16.2	16.7	35.3	105.7
012-07 COMMUNICATIONS (IP/T3) UPGRADE			31.6	85.6	63.2	17.7	19.2	26.0	14.9	30.0	288.1
006-09 E-6 MISSION DEFICIENCIES IMPROVEMENTS (BLOCK I)						64.2	58.4	60.7	58.7	108.3	350.3
002-12 BLOCK RECAPTURE								11.5	20.1	56.6	88.1
TOTAL	889.6	11.1	58.6	126.2	106.2	112.7	127.1	125.2	116.3	230.2	1,903.3

Exhibit P-3a

MODIFICATION TITLE: E-6B MOD(OSIP 032-93)

MODELS OF SYSTEMS AFFECTED: E-6 SERIES TYPE MODIFICATION: Capability

DESCRIPTION / JUSTIFICATION: Mission Needs Statement: E-6A TACAMO/Airborne Command Post (ABNCP) Consolidation Program, MO-40-88-93, dated 22 Sep 93, substantiates the transfer of avionics equipment from the Air Force EC 135 ABNCP platform to all 16 Navy E-6A TACAMO aircraft. This program consolidates Joint Chiefs of Staff (JCS) Strategic Command and Control tasking into one survivable airborne strategic platform and achieves significant operations and maintenance savings of at least $50M annually. The addition of the ABNCP mission to the TACAMO aircraft results in one platform having the ability to relay Emergency Action Messages from the President and Secretary of Defense to U.S. Strategic Forces and for the STRATCOM Commander to directly execute command and control of those forces. Operational Requirements Document E-6B ORD 629-78-04, 5 Feb 04, supports modifications for the High Power Transmit Set (HPTS), original ABNCP avionics systems and MILSTAR capabilities. These are encompassed in ECP CTAS-100R3. E-6B ORD 629 78-04, 5 Feb 04 incorporates newly identified requirements, including approved ECP RCS-100R1 for Voice Satellite (VOSAT) Communications and Engineering Change Proposals (ECPs) for Cryptographic (CRYPTO) equipment upgrades, Ultra High Frequency (UHF) Demand Assigned Multiple Access (DAMA) installation, Automated Data Processing Capability (ADP) and Weight Savings. VOSAT capability is a voice recognition system that is required by COMSTRAT for uncompromised communications. CRYPTO upgrade is required by COMSTRAT to ensure ABNCP receipt and distribution of encrypted messages in accordance with relay timing parameters. UHF DAMA is required for communications across the spectrum of Command and Control responsibilities. ADP capability is required by COMSTRAT for efficient operations by the embarked Battle Staff and for the capability to receive and generate encrypted and classified correspondence. The weight savings is required to offset the effects of other modifications on E-6B zero gross fuel weight parameters. The ADP, UHF DAMA and Weight Savings requirements are combined into the ADWS program and will apply to all 16 E-6Bs, in the active fleet inventory. The ADWS program was restructured in FY03 to increase aircraft availability, reduce fleet aircraft configurations, reduce logistics costs, increase operational flexibility, maximize production effort and allow trainer modifications to be done concurrently. Tactical Local Area Network Encryptor (TACLANE) Crypto was installed through FY05. This modification program is not applicable to any aircraft in either the National Guard or the Reserves.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Milestone III decision on ABNCP modifications granted January 1995. Milestone III decision for Avionics Upgrade and HPTS granted December 1995. FOT&E completed June 1998. Initial Operating Capability (IOC) date of 1 October 1998 was met. September 1997 message from STRATCOM delineated additional requirements and associated program cost growth which resulted in E-6B program restructure with ABNCP Full Operating Capability shifting from January 2001 to February 2003. All ABNCP aircraft modifications have been completed. IOC for VOSAT modification was met 1 October 1998 and IOC for CRYPTO was met 1 July 2000. TACLANE Crypto kit buys completed FY04. A contract was awarded for the ADWS program September 2000. E-6B Modification ADWS Program was extended to increase aircraft availability, reduce fleet aircraft configurations, reduce logistics costs, increase operational flexibility, maximize production effort and allow trainer modifications to be done concurrently. Installation completed November 2006.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E		107.3																				
PROCUREMENT																						
INSTALLATION KITS																						
ABNCP Kit	15	55.9																				
ADWS	16	10.6																				
ASCET	1	0.1																				
CRYPTO Kit	16	1.0																				
HPTS Kit	16	19.7																				
LAB Kit	1	0.1																				
SIL Kit	1	0.4																				
VOSAT Kit	16	0.3																				
INSTALLATION KITS N/R		49.5																				
INSTALL EQUIPMENT																						
ABNCP Equip	15	31.1																				
ADWS	16	10.6																				
ASCET	1	*																				
CRYPTO Equip	16	0.3																				
HPTS TIMING DIV EQUIP	19	5.8																				
HPTS/CFA Equip	18	139.3																				
LAB Equip	1	*																				
MILSTAR Equip	7	38.1																				
SDRS Equip	1	0.6																				
SIL	1	0.4																				
TACLANE	12	0.5																				
VOSAT Equip	16	2.2																				
INSTALL EQUIPMENT N/R		30.5																				
ECO																						
DATA		23.2																				
TRAINING EQUIP	12	41.8																				
SUPPORT EQUIP		7.7		0.1																		
ILS		19.9																				
OTHER SUPPORT		115.1		0.4																		
INTERIM CONTRACTOR SUPPORT		1.1																				
INSTALLATION COST	96	104.8																				
TOTAL PROCUREMENT		710.5		.5																		

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

Totals may not add due to rounding.

1 ABNCP Prototype Kit procured in R&D.

Installation quantities include HPTS and ABNCP kits separately to account for kit purchases although they were combined for installation purposes in 1996.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: E-6 SERIES MODIFICATION TITLE: E-6B MOD(OSIP 032-93)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Drive-In/Field Modification

ADMINISTRATIVE LEADTIME: Months PRODUCTION LEADTIME: Months

CONTRACT DATES: FY 2006 FY 2007 FY 2008 FY 2009

DELIVERY DATE: FY 2006 FY 2007 FY 2008 FY 2009

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (80) kits	76	98.2	4																			
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
Total	76	98.2	4	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0		

Note: Install dollars and quantities do not include one trainer.

ADWS Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	12		2	2																	
Out	12			1	1	2															

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Exhibit P-3a

MODIFICATION TITLE: MULTIFUNCTION DISPLAY SYSTEM(OSIP 027-99)

MODELS OF SYSTEMS AFFECTED: E-6 SERIES TYPE MODIFICATION: Capability

DESCRIPTION / JUSTIFICATION: Operational Requirements Document E-6B ORD 629-78-04, 5 Feb 04 requires installation of the Multifunction Display System (MDS) in all 16 E-6B aircraft. Current and future changes to Communications, Navigation and Surveillance/Air Traffic Management (CNS/ATM) required by Federal Aviation Administration/International Civil Aviation Origination (FAA/ICAO) are satisfied by the installation of the MDS. Modifications to the E-6B cockpit display system are required due to changes in the FAA/ICAO Required Vertical Separation Minimums and other airspace restrictions. The MDS requires modification of a Commercial Off-the-Shelf (COTS) item to an E-6B configuration. Because it is similar to commercial equipment, any further modifications will be less costly. Upgrades to installed systems and changes to the Flight Management Computer System (FMCS) can then be accomplished by changing software without changing the hardware. The MDS program was restructured in FY03 to increase aircraft availability, reduce fleet aircraft configurations, avoid $16M logistics costs, increase operational flexibility, maximize production effort and allow trainer modifications to be done concurrently. GPS-A receiver controls are required to support currently installed military GPS receivers. Nav Table update gives the Navigator Station the ability to provide services during a degraded mission and to support the E-6B Mission Commander and Battlestaff.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: MDS was granted a Milestone III decision 5 May 98. Contract award on 9 Sep 99. Specific and separate Non-Recurring Engineering (NRE) efforts for systems integration of COTS hardware/software occurred in the first two years. Production of NRE COTS article for E-6B configuration began October 2000 with subsequent installation and testing in February 2001. Production deliveries/installations funded through September 2005. Funding provided via Program Decision Memorandum (PDM)-1 required partial spread of NRE efforts. Cost growth from original estimates allows for 1 NRE aircraft kit/installation, 15 production aircraft kits/installations and 1 Operational Flight Trainer kit/installation. Initial Operational Capability (IOC) achieved March 2005. Increased cost and schedule requirements for modification of the Operational Flight Trainer (OFT) required a Milestone Decision Authority (MDA) approved change #2 (16 May 03) to the Acquisition Program Baseline (APB). This modification provided additional funding for OFT #1 (by delaying aircraft modifications) but cut funding for OFT #2 in FY04 (funding used to complete remainder of aircraft modifications.) Subsequent program restructure and Total Obligation Authority (TOA) realignment provided full funding for the program, including OFT #2. GPS-A receiver controls were procured in FY03 and FY04. The Nav Table Update NRE occurred in FY04 with kit procurement and installations in FY05. Full Operational Capability (FOC) occurred December 2006.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
MDS Kit	16	12.6																				
NAV UPDATE	16	0.1																				
INSTALLATION KITS N/R		21.4																				
INSTALL EQUIPMENT																						
GPS "A"	16	0.1																				
MDS Equip	16	25.2																				
NAV UPDATE	16	*																				
NON-RECURRING RECOUPMENT		39.7																				
INSTALL EQUIPMENT N/R																						
ECO																						
DATA		0.5																				
TRAINING EQUIP	3	12.9		*																		
SUPPORT EQUIP		0.1																				
ILS		1.6																				
OTHER SUPPORT		17.1		0.6																		
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	19	24.9																				
TOTAL PROCUREMENT		156.1		.6																		

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

Totals May not add due to rounding.

Trainer installation include: two in FY03, one in FY05.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: E-6 SERIES MODIFICATION TITLE: MULTIFUNCTION DISPLAY SYSTEM(OSIP 027-99)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Drive-In Modification

ADMINISTRATIVE LEADTIME: Months PRODUCTION LEADTIME: Months

CONTRACT DATES: FY 2006 FY 2007 FY 2008 FY 2009

DELIVERY DATE: FY 2006 FY 2007 FY 2008 FY 2009

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (16) kits	12	19.3	4																			
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
Total	12	19.3	4	0.0	0	0.0	0	0.0	0	0.0												

Notes: Does not include three trainers. GPS "A" does not require install kits or installation. No installs required for Nav Update.

MDS Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	12		2	2																	
Out	12			1	1	2															

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Exhibit P-3a

MODIFICATION TITLE: E-6 MISSION SUPPORT(OSIP 007-02)

MODELS OF SYSTEMS AFFECTED: E-6 SERIES TYPE MODIFICATION: Capability

DESCRIPTION / JUSTIFICATION: The Mission Support program corrected Follow-On Test & Evaluation (FOT&E) (September 1998) deficiencies by funding design update and fabrication of new rewind machines and purchasing of "off-the-shelf" power carts to provide adequate aircraft power for full mission ground checkout. Mission Support upgrades the Frequency Referencing Auto Parallel Unit (FRAPU) to provide uninterrupted transfer of power from aircraft to ground systems. There were few rewind machines which were rapidly becoming unsupportable, resulting in the inability to replace the mission antenna at multiple locations when the Long Trailing Wire Antenna is lost. Power carts did not provide adequate ground power causing system shutdown and failure of critical system components on aircraft startup. FRAPU will prevent system shutdown and failure of critical system components on transfer from aircraft to ground power systems. The program also procures various ground support and Peculiar Support Equipment (PSE) for the E-6B aircraft.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Feb 03 procured “off-the-shelf” power carts. A Feb 2003 contract was awarded for NRE to update the design of rewind machines, to replace obsolete components with off-the-shelf technology, and to procure 1 unit; the remaining 3 units were procured in FY04. Planned procurement of PSE in FY07 and FY08. FRAPU NRE and purchase of 16 aircraft kits in FY09 with the installation of all kits in FY10.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
FRAPU									16	0.6												
INSTALLATION KITS N/R										3.8												
INSTALL EQUIPMENT																						
FRAPU									16	1.9												
INSTALL EQUIPMENT N/R																						
ECO																						
DATA		*																				
TRAINING EQUIP									1	0.2												
SUPPORT EQUIP	10	10.4			16	0.8	4	2.3														
ILS																						
OTHER SUPPORT		0.8				0.3		0.3		0.4												
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST																						
TOTAL PROCUREMENT		11.1				1.1		2.6		6.8												

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

Totals may not add due to rounding.

Includes an Electrical Trainer.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: E-6 SERIES MODIFICATION TITLE: E-6 MISSION SUPPORT(OSIP 007-02)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Modification

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2006 FY 2007 FY 2008 FY 2009 Nov-08

DELIVERY DATE: FY 2006 FY 2007 FY 2008 FY 2009 Nov-09

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
Prior Years () kits																						
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
Total	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0												

Note: Install dollars and quantities do not include one trainer.

FRAPU Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In																					
Out																					

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Exhibit P-3a

MODIFICATION TITLE: SAFETY DEFICIENCIES(OSIP 008-02)

MODELS OF SYSTEMS AFFECTED: E-6 SERIES TYPE MODIFICATION: Capability

DESCRIPTION / JUSTIFICATION: Correction of safety deficiencies for the protection of personnel and equipment. FAA APA 19-98 requires a smoke detection system in the aircraft lower avionics bays. Safety replaces the APU crossover and exhaust ducts to prevent potential fire or explosion, replaces aircraft Kapton wiring and the Fuel Quantity Indicating System (FQIS) to comply with FAA SFAR 88 requirements, installs the Crash Survivable Flight Incident Recorder (CSFIR) to meet DoD requirements and replaces the aircraft acoustic thermal blankets to meet FAA requirements. Other safety modifications: corrected safety deficiencies in the aircraft auxiliary power unit (APU) which required a heat shield, replaced an uncertified Cartridge Activated Device (CAD) (explosive) for severing the long trailing wire antenna under emergency conditions, installed new improved inertia reels and shoulder harnesses, replaced unsafe fuel boost pumps to comply with FAA SFAR 88 requirements and replaced the current aircraft battery and charging system which was prone to thermal run-away. The program takes advantage of available and emerging commercial technology for crew/aircraft safety.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Smoke NRE in FY03 and FY05 with kit procurement in FY06 and installs in FY06-07. NRE for CAD completed in FY03; fabrication and installation completed in FY04. Inertia reels procured in FY03 with installation in FY05-06 at no cost using fleet resources. Fuel Boost Pumps completed in FY04. aircraft Battery/Charger NRE and kit procurement FY04 effort. APU heat shield completed FY05. APU crossover and exhaust ducts NRE in FY07 and kit buys in FY07 and FY08 with installation in FY07 and FY08 at no cost using fleet resources. Aircraft Kapton wiring NRE in FY07 with kit production and installation in FY08-09. CSFIR NRE in FY08 with kit buys in FY08 -FY09 and installation in FY09. FQIS NRE in FY08 with kit buys and installation in FY08-FY09. aircraft acoustic thermal blanket NRE in FY09 with kit buys and installation in FY09-FY11.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
A/C BATTERY	16	*																				
APU	16	0.4																				
APU DUCTS					9	*	7	*														
BLANKETS									2	*												
CSFIR							9	0.3	7	0.2												
FQIS							9	0.2	7	0.2												
FUEL BOOST PUMPS	16	0.8																				
KAPTON WIRE							12	0.4	4	0.1												
SMOKE DETECTOR			16	0.3																		
INSTALLATION KITS N/R		0.2				2.4		4.2		2.1												
INSTALL EQUIPMENT																						
A/C BATTERY	16	0.7																				
APU DUCTS					9	0.1	7	0.1														
BLANKETS									2	0.2												
CSFIR							9	0.5	7	0.4												
FQIS							9	0.6	7	0.5												
HPTS CAD CUTTER	16	0.1																				
INERTA REELS	16	0.4																				
KAPTON WIRE FUEL PUMP			16	0.6																		
SMOKE DETECTOR			16	0.3																		
INSTALL EQUIPMENT N/R		1.3		*				2.3														
ECO																						
DATA		0.1		*																		
TRAINING EQUIP	1	*			1	0.2	2	1.1		0.6												
SUPPORT EQUIP							1	0.2	20	0.8												
ILS						*		1.3		*												
OTHER SUPPORT		1.5		0.8		1.2		2.6		1.8												
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	33	0.2	7	0.4	10	0.5	23	2.0	29	9.8												
TOTAL PROCUREMENT		5.7		2.4		4.4		15.8	85	16.8												

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

Totals may not add due to rounding.

Inertia Reels do not require install kits.

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: 1 Months PRODUCTION LEADTIME: Various Months

CONTRACT DATES: FY 2006 Nov 05 FY 2007 Nov 06 FY 2008 Various FY 2009 Various

DELIVERY DATE: FY 2006 Dec 06 FY 2007 Dec 07 FY 2008 Various FY 2009 Various

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
Prior Years () kits	32	0.2																				
FY 2006 () kits			7	0.4	9	0.5																
FY 2007 () kits																						
FY 2008 () kits							21	1.7	9	3.9												
FY 2009 () kits									20	5.9												
Total	32	0.2	7	0.4	9	0.5	21	1.7	29	9.8												

Notes: Does not include four trainers. No installs required for Fuel Boost Pump, APU and APU Crossover ducts.

CSFIR Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In														1	4	5	6				
Out														1	4	5	5	1			

	FY 2011				FY 2012				FY 2013					
	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Total
In														
Out														

FQIS Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In											3	3	3	1	1	4	1				
Out											2	3	4	1	1	4	1				

	FY 2011				FY 2012				FY 2013					
	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Total
In														
Out														

Smoke Detectors Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In		1		2	4	1	4	3	1												
Out		1		2	4	1	4	3	1												

	FY 2011				FY 2012				FY 2013					
	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Total
In														
Out														

Kapton Wire 1A Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		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 2011				FY 2012				FY 2013					
	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Total
In														16
Out														16

Blankets Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In															2						
Out															2						

	FY 2011				FY 2012				FY 2013					
	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Total
In														
Out														

Exhibit P-3a

MODIFICATION TITLE: TECH INSERTION(OSIP 003-04)

MODELS OF SYSTEMS AFFECTED: E-6 SERIES TYPE MODIFICATION: Capability

DESCRIPTION / JUSTIFICATION: Tech Insertion fixes supportability/obsolescence issues, address interoperability issues, update systems and inserts new technologies into the E-6B platform. The E-6 aircraft have 35 individual computers dealing with communications and mission systems. Technology Insertion addresses supportability, new technologies, obsolescence, systems updates and interoperability issues in the areas of: Mission Computer Set (MCS), Flight Management Computer System (FMCS) and Mission Avionics Processing System (MAPS) hardware. The MCS is rapidly becoming unsupportable. Intervention is required to ensure this mission critical system continues to operate. Also, the FMCS will become obsolete and needs to be upgraded in order to be supportable beyond FY08. The unsupportable Standard Distribution Switching Unit (SDSU) provides mission critical timing throughout the aircraft and will be replaced with an off-the shelf unit (TFD8000.) The existing Secure Telephone Unit (STU) must be replaced with the Secure Telephone Equipment (STE) due to obsolescence. The mission critical MAPS is currently under development as part of the Block I program to replace the MCS and is expected to require Tech Refresh starting in FY10 in order to avoid COTS obsolescence issues during production.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: MCS update is divided into Spirals. Spiral 1, which added an uninterruptible power supply and replaced the current mechanical hard drive with a solid state device, completed in FY05. 85 HP motor kits were procured in FY04 with installation at no cost using fleet resources. NRE for Spiral 2, the Message Processing System (MPS), started in FY06, with kit buys in FY07; all obsolete equipment will be replaced in FY07. STE NRE in FY07 with NRE kit installation in FY08 and kit buys in FY08 with installation in FY09. KG-3X family crypto NRE and replacement kits will be provided by Air Force at no cost to Navy with installation occurring in FY10-FY11. Air Force will pay for two (2) installs and Navy will pay for the remaining fourteen (14) installs. FMCS Single Board NRE in FY07-FY08 with kit buys and installs in FY07-FY08. TFD8000 (SDSU) NRE in FY07 with kit procurement and installation in FY07 and FY08. The MAPS Technical Refresh will start with NRE in FY10; kit buys will occur FY11-FY13 and installs will start in FY12 and complete in FY14.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
85HP MOTOR	16	0.4																				
LAB																						
MAPS Upgrade									2	0.8												
MCS SPIRAL 1 (UPS)	16	0.2																				
MCS SPIRAL 2 (MPS)																						
SDSU					9	*	7	*														
SIL	1	*					2	0.3														
STE							16	0.5														
INSTALLATION KITS N/R		*				2.0				12.6												
INSTALL EQUIPMENT																						
85 HP Motor	16	0.4																				
FMCS Single Board					1	0.1	15	1.2														
LAB																						
MAPS Upgrade									2	1.6												
MCS SPIRAL 1 (UPS)	16	1.2																				
MCS SPIRAL 2 (MPS)			1	0.2	15	1.2																
SDSU					9	1.3	7	1.0														
SIL	1	0.1			1	0.2																
STE							16	2.8														
INSTALL EQUIPMENT N/R		3.5		3.1		4.2		5.4														
ECO																						
DATA		0.1				0.4				0.3												
TRAINING EQUIP					5	0.9	7	1.5		0.2												
SUPPORT EQUIP																						
ILS						0.9		0.3		0.3												
OTHER SUPPORT		0.4		4.3		5.1		3.5		0.9												
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	19	0.1			30	0.9	16	0.2	30	0.9												
TOTAL PROCUREMENT		6.3		7.6		17.1		16.8		17.6												

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

Totals may not add due to rounding

MCS requires no installation kits. But incurs install cost.

KG-3X does not require install equipment kits.

MCS Spiral 1: three install kits and three install equipment kits used for two trainers and a lab.

FMCS Single Board install kits not required. But incurs install cost.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: E-6 SERIES MODIFICATION TITLE: TECH INSERTION(OSIP 003-04)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Modification

ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2006 Nov 05 FY 2007 Various FY 2008 Various FY 2009 Various

DELIVERY DATE: FY 2006 Nov 06 FY 2007 Various FY 2008 Various FY 2009 Various

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
Prior Years () kits	16	*																				
FY 2006 () kits					1	0.0																
FY 2007 () kits					24	0.4	1	0.0														
FY 2008 () kits							12	0.1	26	0.9												
FY 2009 () kits																						
Total	16	0.0	0	0.0	25	0.5	13	0.1	26	0.9												

Notes:
Does not include 3 SIL or 15 trainer installs.
FY2010 & FY2011 install cost quantities reflect KG-3X kits that were procured by the Air Force.

MCS Spiral 2 Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In						1	3	7	5												
Out						1	3	7	5												

	FY 2011				FY2012				FY2013					
	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Total
In														
Out														

SDSU Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY2010			
		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	3										

	FY 2011				FY2012				FY2013					
	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Total
In														
Out														

KG-3X Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In																					
Out																					

	FY 2011				FY2012				FY2013					
	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Total
In	4	4												
Out	4	4												

FMCS Single Board Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY2010			
		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					
Out												2	3	3	3	3	2				

	FY 2011				FY2012				FY2013					
	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Total
In														
Out														

MAPS Upgrade Installation Schedule

	0	FY 2006				FY 2007				FY 2008				FY 2009				FY2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In																					
Out																					

	FY 2011				FY2012				FY2013					
	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Total
In														
Out														

STE Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In														1	4	5	6				
Out															4	6	6				

	FY 2011				FY2012				FY2013					
	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Total
In														
Out														

Exhibit P-3a

MODIFICATION TITLE: SLEP(OSIP 003-07)

MODELS OF SYSTEMS AFFECTED: E-6 SERIES TYPE MODIFICATION: Capability

DESCRIPTION / JUSTIFICATION: 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.) FY07& 08 NRE will be used for the Individual Aircraft Tracking System (IATS)and ECP generation. Full and open competition will be conducted in FY09 with contract award scheduled for FY10. The IATS will enable the fleet and program office to track the fatigue life expended on each E-6B aircraft. This tracking capability will identify the next critical fatigue damaged component that will need repair. It will also generate cost savings by allowing future modifications to be tailored to meet each aircraft's need and increases E-6B fleet availability for operational use. Current E-6B usage indicates modification must commence in FY10 to prevent the E-6B from being unable to perform its mission with the downing of more than two aircraft in 2016. There is a potential safety of flight issue due to unknown rate of deterioration of the E-6B airframe.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: FY04 RDT&E contract awarded for SLAP identified structural areas requiring rework. FY07 MS C for SLEP. SLEP contract award in FY09 with prototype installation in FY10. SLEP full rate production in FY10 with additional kits fabricated FY10-FY14. Installation ends in FY15.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E		6.5		3.6																		
PROCUREMENT																						
INSTALLATION KITS																						
SLEP																						
INSTALLATION KITS N/R						2.0		4.8														
INSTALL EQUIPMENT																						
INSTALL EQUIPMENT N/R																						
ECO																						
DATA																						
TRAINING EQUIP																						
SUPPORT EQUIP																						
ILS																						
OTHER SUPPORT						2.5		0.6		1.8												
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST																						
TOTAL PROCUREMENT						4.5		5.4		1.8												

Totals may not add due to rounding.

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: Months PRODUCTION LEADTIME: Months

CONTRACT DATES: FY 2006 FY 2007 FY 2008 FY 2009

DELIVERY DATE: FY 2006 FY 2007 FY 2008 FY 2009

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS () kits																						
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
Total	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0												

SLEP Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In																					
Out																					

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Totals may not add due to rounding

Exhibit P-3a

MODIFICATION TITLE: COMMUNICATIONS (IP/T3) UPGRADE(OSIP 012-07)

MODELS OF SYSTEMS AFFECTED: E-6 SERIES TYPE MODIFICATION: Capability

DESCRIPTION / JUSTIFICATION: OSD PDM III directs funding to establish and maintain IP connectivity using various wideband communications links in support of command and control operations onboard the E-6B aircraft. It installs INMARSAT commercial satellite access for global communications connectivity (Phase 1); provides a Ku band transmit capability of 1-5 Mbps (Phase 2); removes the Utility Training Wire Antenna (UTWA) to provide weight and space margin for aircraft modifications (Phase 3); provides the Northstar Digital Ground Entry Point (GEP) capability for high speed UHF LOS communications (Phase 4); and provides a T3 transmit/receive capability and airborne cellular and communications cross banding capabilities to support domestic catastrophic events (Phase 5).

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Phase 1 INMARSAT, Phase 2 Ku band transmit capability, and Phase 3 UTWA removal contract award and NRE in FY07 with NRE kit installation in FY08. Fifteen (15) production kit buys in FY08 with installs in FY08 (4 A/C) and FY09 (11 A/C). FOC FY09 (16 A/C). Phase 4 Digital GEP contract award FY08 with NRE and NRE kit install in FY08. Fifteen (15) production kit buys and installs in FY08. FOC FY08 (16 A/C). Phase 5 T-3 contract award in FY09 with NRE in FY09-FY10 and NRE kit installation (equipment kit and install kit) in FY10. Four (4) equipment kit buys in FY11-FY12 and 15 install kit buys in FY11-FY15. Installs FY12-FY16. FOC FY16 (16 A/C). The five (5) Phase 5 T-3 equipment kits will be “roll-on, roll-off”, with all 16 A/C being modified to accept this equipment kit configuration.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
LAB KITS					3	0.4	1	0.1	1	1.1												
PHASE FIVE KITS									1	1.1												
PHASE FOUR KITS							16	1.0														
PHASE ONE KITS					1	0.1	15	1.5														
PHASE THREE KITS					1	0.1	15	2.2														
PHASE TWO KITS					1	0.1	15	2.3														
INSTALLATION KITS N/R						16.4		7.4		15.9												
INSTALL EQUIPMENT																						
LAB KITS					3	2.0	1	0.3	1	2.6												
PHASE FIVE KITS									1	2.1												
PHASE FOUR KITS							15	4.1														
PHASE ONE KITS					1	0.5	15	7.5														
PHASE THREE KITS					1	0.7	15	10.9														
PHASE TWO KITS					1	0.7	15	13.4														
INSTALL EQUIPMENT N/R																						
ECO																						
DATA						0.7		1.1		1.3												
TRAINING EQUIP						0.9	16	10.3		2.5												
SUPPORT EQUIP																						
ILS						0.9		0.4		3.2												
OTHER SUPPORT						7.6		8.4		7.8												
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST					3	0.5	42	14.8	39	25.5												
TOTAL PROCUREMENT						31.6		85.6		63.2												

Totals may not add due to rounding.

Includes 5 LAB and 19 trainer installs.

Phase Five only 5 equipment kits required-system is roll on/roll off.

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 Field Modification

ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: Various Months

CONTRACT DATES: FY 2006 FY 2007 Apr-07 FY 2008 Nov-07 FY 2009 Various

DELIVERY DATE: FY 2006 FY 2007 Dec 07 FY 2008 Jul 08 FY 2009 Various

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
Prior Years () kits																						
FY 2006 () kits																						
FY 2007 () kits							3	2.3														
FY 2008 () kits							28	10.9	33	24.4												
FY 2009 () kits																						
Total	0	0.0	0	0.0	0	0.0	31	13.2	33	24.4												

Note: Does not include the 5 LAB or 19 Trainer Installs

Phase One Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In											1		4	3	3	3	2				
Out											1		3	3	3	3	3				

	FY 2011				FY 2012				FY 2013					
	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Total
In														
Out														

Phase Two Installation Schedule

	0	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In											1		4	3	3	3	2				
Out											1		3	3	3	3	3				

	FY 2011				FY 2012				FY 2013					
	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Total
In														
Out														

Phase Three Installation Schedule

	0	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In											1		4	3	3	3	2				
Out											1		3	3	3	3	3				

	FY 2011				FY 2012				FY 2013					
	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Total
In														
Out														

Totals may not add due to rounding

Phase Four Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In										1	3	7	5								
Out										1	1	7	4	3							

	FY 2011				FY 2012				FY 2013					
	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Total
In														
Out														

Phase Five Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In																					
Out																					

	FY 2011				FY 2012				FY 2013					
	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Total
In														
Out														

BUDGET ITEM JUSTIFICATION SHEET P-40												DATE: February 2007
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy / APN5 Aircraft Modifications**							P-1 ITEM NOMENCLATURE **056600, EXECUTIVE HELICOPTERS SERIES**					
Program Element for Code B Items:							Other Related Program Elements					
	PRIOR YEARS	ID Code	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
QUANTITY												
COST (In Millions)	198.7	A	21.5	40.0	55.8	16.5	16.7	17.0	7.1	1.6		374.9

DESCRIPTION: This line item funds modifications to the (11) VH-3D and (8) VH-60N Executive Helicopters. These aircraft are assigned to Marine Helicopter Squadron One to support the President of the United States. The 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, and Data Transfer capability 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 VH-60N Structural Enhancement Program replaces critical aircraft structure during planned depot overhaul cycles. The Obsolescence Management Program will manage impending Executive Helicopter obsolescence issues. A variety of factors will be addressed including communication and navigation upgrades to remain mission relevant. The overall goal of the modifications budgeted in FY 2008 is to continue procurement efforts in accordance with the procurement strategy implemented during FY 2002.

The specific modifications budgeted and programmed are:
*FY02 DERF funding augments OSIP 14-02, Communication Suite Upgrade

OSIP No. / DESCRIPTION	PRIOR YEARS	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
009-02 VH-60N COCKPIT UPGRADE	43.0	9.7	10.0	13.3	12.3	10.5	5.3	0.7			104.7
014-02 VH COMM UPGRADE	28.5	6.8	5.2	8.6	4.2						53.4
DERF (non add)	10.1										
011-06 VH-3D LIFT IMPROVEMENTS		5.0	24.8	11.7							41.6
016-08 VH STRUCTURAL ENHANCEMENTS				22.2							22.2
004-10 OBSOLESCENCE MANAGEMENT PROGRAM						6.2	11.7	6.4	1.6		25.9
TOTAL	71.5	21.5	40.0	55.8	16.5	16.7	17.0	7.1	1.6		247.8

Exhibit P-3a

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 should 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.

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 will begin in FY 2007. Development Testing is scheduled for FY 2007/8. Initial Operating Capability is scheduled for FY 2008 with Full Operating Capability scheduled for FY 2012.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E										
PROCUREMENT										
INSTALLATION KITS										
VH-60N Cockpit Upgrade Kit			1	0.6	1	0.6	2	1.1	2	1.3
INSTALLATION KITS N/R		18.3		6.3						
INSTALL EQUIPMENT										
Production				1.3		1.4		2.5		2.5
INSTALL EQUIPMENT N/R		18.7		0.1						
ECO										
Engineering Change Orders		1.1								
DATA						0.5		0.9		0.5
TRAINING EQUIP				*			1	1.4		0.4
SUPPORT EQUIP								1.0		
ILS				0.2		0.6		1.6		
OTHER SUPPORT		5.0		1.2		2.3		2.8		2.1
INTERIM CONTRACTOR SUPPORT						1.0		1.0		1.2
INSTALLATION COST					2	3.6	1	0.9	2	4.3
TOTAL PROCUREMENT		43.0	1	9.7	3	10.0	4	13.3	4	12.3

Asterisk (*) indicates amount value 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: 14 Months

CONTRACT DATES: FY 2006 May 06 FY 2007 Nov-06 FY 2008 Feb-08 FY 2009 Dec-09

DELIVERY DATE: FY 2006 Mar 07 FY 2007 Sep 07 FY 2008 Jul 09 FY 2009 May 10

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY () kits										
FY 2006 (1) kits					1	1.8				
FY 2007 (1) kits					1	1.8				
FY 2008 (3) kits							1	0.9	2	4.3
FY 2009 (2) kits										
Total					2	3.6	1	0.9	2	4.3

Total quantity includes 1 trainer

Installation Schedule

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

Exhibit P-3a

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 compatable 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 capablilty due to the obsolescence of the YZ radio system employed by White house Communication Agency (WHCA).

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: This program was approved as an Abbreviated Acquisition Program in July 2001. Program was upgraded to ACAT IV-M im March 2003. Digital FM capability was performed between FY 2003 through FY 2005, with a VAL/VER in FY 2004. The Data Transfer Computer/Printer capability modification has been performed between FY 2003 through FY 2005 with a VAL/VER in FY 2006. DAMA SATCOM upgrade will be performed between FY 2002 through FY 2009. DAMA SATCOM installations are performed in conjunction with scheduled depot maintenance. VAL/VER was performed on the delivery of the VH-3D (2005) and VH-60N (2006) DAMA SATCOM modifications. The HF/ALE modification will be performed between FY 2005 through FY 2009 with a VAL/VER completed in FY 2007. FM radio replacement will occur in FY 2008. 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)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E										
PROCUREMENT										
INSTALLATION KITS										
FM Radio Replacement							19	0.1		
SATCOM (O-level)		0.5								
VH Digital FM	28	1.0								
VH-3D SATCOM	6	0.3	3	0.2	2	0.1				
VH-60 SATCOM	5	0.9	2	0.4	1	0.2				
INSTALLATION KITS N/R		17.4		1.1				1.8		
INSTALL EQUIPMENT										
FM Radio Replacement							19	0.7		
Data Transfer Computer/ Printer	8	0.2								
Digital FM	21	0.3								
SATCOM	27	1.9								
INSTALL EQUIPMENT N/R		3.2		1.4		0.4		0.2		
ECO										
FM Radio Replacement								0.4		
Data Transfer		0.3								
Digital FM		0.7								
HF/ALE										0.9
SATCOM				0.6						
DATA		1.9		1.0		0.5		0.5		0.4
TRAINING EQUIP	5	0.5		*		0.5				
SUPPORT EQUIP		1.6		*		0.4		0.5		0.3
ILS		0.1						0.1		
OTHER SUPPORT		6.7		1.1		1.4		3.8		2.0
INTERIM CONTRACTOR SUPPORT										
INSTALLATION COST	4	1.2	5	1.1	5	1.6	3	0.7	2	0.7
TOTAL PROCUREMENT	104	38.6	10	6.8	8	5.2	41	8.6	2	4.2

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

Note: FM Radio Replacement kits will be installed at the O level.

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 COMM SUITE Upgrade during SPAR.

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 9 Months

CONTRACT DATES: FY 2006 Jan 06 FY 2007 Jan-07 FY 2008 FY 2009

DELIVERY DATE: FY 2006 Sep 06 FY 2007 Sep 07 FY 2008 FY 2009

($ in Millions)

Cost:	Prior Years		FY 06		FY 07		FY 08		FY 09	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY (11) kits	4	1.2	5	1.1	2	0.7				
FY 2006 (5) kits					3	0.9	2	0.5		
FY 2007 (3) kits							1	0.2	2	0.7
FY 2008 () kits										
FY 2009 () kits										
Total	4	1.2	5	1.1	5	1.6	3	0.7	2	0.7

Installation Schedule

	FY 2005 & Prior	FY 06				FY 07				FY 08				FY 09			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	4	2		1	2	2	1	1	1	2	1					1	1
Out		2		1	2	1	2		3		2		3	1			

Totals may not add due to rounding

Exhibit P-3a

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. Composite blades reduce vibrations and 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 2nd and 3rd quarter of FY 2007. Procurement and operational install of these blades will take place in 2nd quarter of FY 08.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E										
PROCUREMENT										
INSTALLATION KITS										
INSTALLATION KITS N/R										
INSTALL EQUIPMENT										
INSTALL EQUIP (B Kits)					5	8.8	6	10.5		
INSTALL EQUIPMENT N/R				3.1		10.9				
ECO										
DATA						2.2				
TRAINING EQUIP						1.0		0.3		
SUPPORT EQUIP										
ILS						0.8				
OTHER SUPPORT				1.9		1.2		0.9		
INTERIM CONTRACTOR SUPPORT										
TOTAL PROCUREMENT				5.0	5	24.8	6	11.7		

Exhibit P-3a

MODIFICATION TITLE: VH-60N STRUCTURAL ENHANCEMENTS (OSIP 016-08)

MODELS OF SYSTEMS AFFECTED: VH-60N TYPE MODIFICATION: SAFETY

DESCRIPTION / JUSTIFICATION: The VH-60N Structural Enhancement Program replaces critical aircraft structure during planned depot overhaul cycles. 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: Non-recurring engineering will begin in the 1st quarter of FY 2008. Kit procurement will commence in time to meet the installations, which will be performed in conjunction with planned SPAR periods starting in the 3rd quarter of FY 2009.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E										
PROCUREMENT										
INSTALLATION KITS							2	2.2		
INSTALLATION KITS N/R								10.1		
INSTALL EQUIPMENT										
INSTALL EQUIP										
INSTALL EQUIPMENT N/R										
ECO								0.9		
DATA										
TRAINING EQUIP										
SUPPORT EQUIP										
ILS								2.1		
OTHER SUPPORT								1.2		
INTERIM CONTRACTOR SUPPORT										
INSTALLATION COST								5.8	2	
TOTAL PROCUREMENT							2	22.2	2	

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: VH-60N MODIFICATION TITLE: VH-60N STRUCTURAL ENHANCEMENTS (OSIP 016-08)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: INSTALLATION OF STRUCTURAL ENHANCEMENTS DURING SPAR

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 17 Months

CONTRACT DATES: FY 2006 FY 2007 FY 2008 Dec-07 FY 2009

DELIVERY DATE: FY 2006 FY 2007 FY 2008 Apr 09 FY 2009

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY () kits										
FY 2006 () kits										
FY 2007 () kits										
FY 2008 (2) kits							*	5.8	2	
FY 2009 () kits										
Total							*	5.8	2	

Installation Schedule

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

*Installs must follow VH-60N SPAR schedule. No VH-60N in SPAR for FY 08, therefore installations must occur in FY 09.

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2007	
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy / APN5 Aircraft Modifications**							P-1 ITEM NOMENCLATURE **056700, SPECIAL PROJECT AIRCRAFT**					
Program Element for Code B Items:							Other Related Program Elements					
	PRIOR YEARS	ID Code	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
QUANTITY												
COST (In Millions)	189.5	A	26.2	17.1	13.7	14.2	15.4	15.4	16.0	16.3	84.2	408.2

DESCRIPTION:
The Special Projects program modifies and/or replaces obsolete intelligence collection equipment as required in (6) P-3 aircraft. Procurements vary in each fiscal year and include common Navy systems for increased capability, reduced operator workload and common logistics. Active Primary Aircraft Authorization inventory is 4 with additional 2 Backup Aircraft Authorization aircraft in the Special Mission inventory. A total of 6 aircraft have been delivered. The specific modifications budgeted and programmed are:

OSIP No. / DESCRIPTION	PRIOR YEARS	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
019-97 INTELLIGENCE SENSORS	115.1	26.2	17.1	13.7	14.2	15.4	15.4	16.0	16.3	84.2	333.8
TOTAL	115.1	26.2	17.1	13.7	14.2	15.4	15.4	16.0	16.3	84.2	333.8

Exhibit P-3a

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:
1. Procurement of special mission equipment as directed by the Chief of Naval Operations.
FY2007 includes a $2.9M Congressional Add for C4ISR Operations and Training Center for Excellence.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:
Approval for full rate production is not required.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
P-3 KITS (MISSION UNIQUE)	4	0.7																				
INSTALLATION KITS N/R																						
INSTALL EQUIPMENT																						
CAPABILITY		24.0		4.3		1.0		0.5		0.5												
MISSION UNIQUE EQUIPMENT		48.3		8.3		4.6		1.9		1.7												
INSTALL EQUIPMENT N/R		28.4		4.4		2.0		2.3		2.5												
ECO																						
DATA		1.0		0.5		0.4		0.4		0.4												
TRAINING EQUIP				0.4		3.1		0.1		0.1												
SUPPORT EQUIP				0.1		0.1		0.1		0.1												
ILS		1.7		0.3		0.3		0.3		0.3												
OTHER SUPPORT		10.5		3.7		3.3		3.6		3.9												
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST		0.4		4.1		2.2		4.6		4.7												
TOTAL PROCUREMENT	4	115.1		26.2		17.1		13.7		14.2												

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3B/C MODIFICATION TITLE: INTELLIGENCE SENSORS(OSIP 019-97)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Drive In and Navy Field Mod Team.

ADMINISTRATIVE LEADTIME: 5 Months PRODUCTION LEADTIME: 8 Months

CONTRACT DATES: FY 2006 Jan 06 FY 2007 Jan-07 FY 2008 Feb-08 FY 2009 Jan-09

DELIVERY DATE: FY 2006 Sep 06 FY 2007 Sep 07 FY 2008 Oct 08 FY 2009 Sep 09

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS () kits		0.4		2.0																		
FY 2006 () kits				2.1		2.2																
FY 2007 () kits								4.6														
FY 2008 () kits										2.0												
FY 2009 () kits										2.7												
Total		0.4		4.1		2.2		4.6		4.7												

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In																					
Out																					

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Note: Installation equipment includes both Mission Unique and Improved Communication and Collection Capabilities to be installed concurrently.

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2007	
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy / APN5 Aircraft Modifications**							P-1 ITEM NOMENCLATURE **056900, T-45 SERIES**					
Program Element for Code B Items:							Other Related Program Elements					
	PRIOR YEARS	ID Code	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
QUANTITY												
COST (In Millions)	149.8	A	45.1	35.8	57.2	68.2	51.1	45.4	48.3	47.0	373.9	921.9

DESCRIPTION: 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 2008 is to correct discrepancies and deficiencies discovered after delivery of the aircraft and to commence upgrades to the aircraft cockpit and navigation systems. FY03 funded simulator is an analog conversion and supported production aircraft that was delivered to Kingsville in FY04. 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/T39 are going to be divested in 2006/2013 and the training command cannot complete 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 30 aircraft to incorporate Synthetic Radar Training into curriculm. 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.

The designed service life of the aircraft is 14,400 hours with the average remaining service life of inventory aircraft estimated at 6,692 hours.

OSIP No. / DESCRIPTION	PRIOR YEARS	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
008-95 T-45TS CORR OF DEFIC	100.5	12.0	6.3	9.5	21.5	10.7	11.3	28.8	28.9	87.4	317.0
011-02 IMPROVEMENT DIRECTIONAL CONTROL	4.4	0.7									5.1
003-03 ENGINE SURGE	8.9	0.3	3.3	4.6	6.9	9.5	10.4	13.7	13.6	284.8	355.9
010-04 T-45TS GPS	2.3	1.5	1.3	1.5	1.6	1.1	0.9	1.0	1.0		12.2
017-04 AVIONICS OBSOLESCENCE	24.0	27.7	19.4	23.6	17.0	15.8	15.8	2.9	2.7	1.8	150.7
002-06 SYNTHETIC RADAR			4.5	18.0	21.2	14.0	7.0	1.9	0.9		67.5
013-06 CRASH SURVIVABLE MEMORY UNIT		2.8	1.0								3.8
TOTAL	140.2	45.1	35.8	57.2	68.2	51.1	45.4	48.3	47.0	373.9	912.2

Exhibit P-3a

MODIFICATION TITLE: T-45TS CORR OF DEFIC(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 inlcude 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 relatingto 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 catagories; Structual 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, Longitudial 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 Mechansim.
SYSTEMS ECP's: 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 controlsurfaces, 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 and GPS and inverter.
ENGINE/POWER AND PROPULSION: Modifications under this catagory include modification to the Engine, Gas Turbine Starter, and Electircal 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. Non-recurring efforts to increase aircraft service life to 21,600 flight hours commences in FY09.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
Airframe Structural	1,172	24.1	48	0.5	48	0.5	113	1.1	60	0.6												
Airframe Systems	75	2.9	411	2.3	68	0.4	48	0.6	26	0.4												
Avionics	413	7.1	209	2.8	24	0.5	24	1.0	144	5.8												
Ejection Seat Handle MB-9155	112	0.3	197	0.1																		
Engines/Power & Propulsion	729	6.1	45	0.6	40	0.3	250	2.0	173	0.9												
Ground Training Systems TBD	49	2.3																				
Uncommanded Gear Extension	35	0.7																				
INSTALLATION KITS N/R		10.4		0.4		0.5		1.2		9.9												
INSTALL EQUIPMENT																						
Airframe Structural		0.4																				
Airframe Systems		0.5		0.8																		
Avionics		1.4																				
Ejection Seat Handle MB-9155		0.2																				
Engines/Power & Propulsion		2.0																				
Ground Training Systems TBD		0.7																				
Uncommanded Gear Extension		*																				
INSTALL EQUIPMENT N/R		2.0																				
ECO																						
DATA		0.8																				
TRAINING EQUIP		7.1						0.3														
SUPPORT EQUIP		0.9																				
ILS																						
OTHER SUPPORT		1.1																				
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	1,051	29.6	388	4.6	382	4.1	587	3.2	432	3.9												
TOTAL PROCUREMENT	3,636	100.5	1,298	12.0	562	6.3	1,022	9.5	835	21.5												

Note: In FY2006 there are 602 O-level installs out of 910 procured kits.
Note: In FY2007 there are 435 O-level installs out of 531 procured kits.
Note: In FY2008 there are 234 O-level installs out of 435 procured kits.
Note: In FY2009 there are 24 O-level installs out of 403 procured kits.

Totals may not add due to rounding

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: T-45TS MODIFICATION TITLE: T-45TS CORR OF DEFIC(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 2006 Various FY 2007 Various FY 2008 Various FY 2009 Various

DELIVERY DATE: FY 2006 Various FY 2007 Various FY 2008 Various FY 2009 Various

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY (2585) kits	1,051	29.6	388	4.6	382	4.1	327	2.0	276	2.5												
FY 2006 (910) kits							260	1.2	48	0.4												
FY 2007 (180) kits									48	0.4												
FY 2008 (435) kits									60	0.5												
FY 2009 (403) kits																						
Total	1051	29.6	388	4.6	382	4.1	587	3.2	432	3.9												

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	1051	97	97	97	97	96	96	96	94	146	146	146	149	108	108	108	108				
Out	1051	97	97	97	97	96	96	96	94	146	146	146	149	108	108	108	108				

	FY 2011				FY 2012				FY 2013					
	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Total
In														
Out														

Totals may not add due to rounding

Exhibit P-3a

MODIFICATION TITLE: IMPROVEMENT DIRECTIONAL CONTROL(OSIP 011-02)

MODELS OF SYSTEMS AFFECTED: T-45TS TYPE MODIFICATION: Safety

DESCRIPTION / JUSTIFICATION: Loss of Directional Control during high speed ground rollout has resulted in six Class A T45 mishaps. The proposed modification will significantly improve the Ground Handling characteristics by improvements such as: Providing yaw rate feedback to the nosewheel steering system and the (SASS) Stability Augmented Steering System. This improvement will make external forces less influential on yaw rates, and provide for lower susceptibillity to pilot induced oscillations.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Non-recurring engineering efforts associated with this modification were conducted during FY02. Kit procurement commenced in FY03 and installations began in FY05.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
Directional Control	168	2.7																				
INSTALLATION KITS N/R		0.5																				
INSTALL EQUIPMENT																						
INSTALL EQUIPMENT N/R																						
ECO																						
DATA		0.5																				
TRAINING EQUIP	17	*																				
SUPPORT EQUIP		*																				
ILS																						
OTHER SUPPORT																						
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	96	0.7	72	0.7																		
TOTAL PROCUREMENT	281	4.4	72	.7																		

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

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: T-45TS MODIFICATION TITLE: IMPROVEMENT DIRECTIONAL CONTROL(OSIP 011-02)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: Months PRODUCTION LEADTIME: Months

CONTRACT DATES: FY 2006 FY 2007 FY 2008 FY 2009

DELIVERY DATE: FY 2006 FY 2007 FY 2008 FY 2009

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY (168) kits	96	0.7	72	0.7																		
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
Total	96	0.7	72	0.7																		

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	42	27	27	27	27	18															
Out	42	27	27	27	27	18															

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Totals may not add due to rounding

Exhibit P-3a

MODIFICATION TITLE: ENGINE SURGE(OSIP 003-03)

MODELS OF SYSTEMS AFFECTED: T-45TS TYPE MODIFICATION: PS Safety

DESCRIPTION / JUSTIFICATION: Engine Surge: T-45 enigne surge is a critical safety concern for a single engine aircraft with over 195 surge events documented. Kits include modifications to airframe, engine, and fuel control system.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Funding was provided to correct T-45 F405 engine surge. Non-Recurring Engineering efforts started in FY03. Kit procurement began in FY07.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
Airframe Kits					43	1.3	52	1.6	55	1.7												
Engine Kits							2	2.6	4	5.2												
INSTALLATION KITS N/R		8.9		0.3		1.1		0.2														
INSTALL EQUIPMENT																						
INSTALL EQUIPMENT N/R																						
ECO																						
DATA						0.6		0.1														
TRAINING EQUIP																						
SUPPORT EQUIP						0.2		0.1														
ILS						0.1		0.1														
OTHER SUPPORT																						
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST							43	*	54	*												
TOTAL PROCUREMENT		8.9		.3	43	3.3	97	4.6	113	6.9												

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

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 2006 ____ FY 2007 Mar-07 FY 2008 Mar-08 FY 2009 Mar-09

DELIVERY DATE: FY 2006 ____ FY 2007 Sep 08 FY 2008 Sep 09 FY 2009 Sep 10

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY () kits																						
FY 2006 () kits																						
FY 2007 (43) kits							43	*														
FY 2008 (52) kits									52	*												
FY 2009 (55) kits											55	*										
													53	*								
Total							43	*	52	*	55	*	53	*								

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In													43								
Out													43								

	FY 2011				FY 2012				FY 2013					
	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Total
In														
Out														

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 2006 ____ FY 2007 Mar-07 FY 2008 Mar-08 FY 2009 Mar-09

DELIVERY DATE: FY 2006 ____ FY 2007 Sep 08 FY 2008 Sep 09 FY 2009 Sep 10

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY () kits																						
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 (2) kits									2	*												
FY 2009 (4) kits																						
Total									2	*												

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In																					
Out																					

	FY 2011				FY 2012				FY 2013					
	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Total
In														
Out														

Totals may not add due to rounding

Exhibit P-3a

MODIFICATION TITLE: T-45TS GPS(OSIP 010-04)

MODELS OF SYSTEMS AFFECTED: Analog Cockpit TYPE MODIFICATION: PS Safety

DESCRIPTION / JUSTIFICATION: Congressional requirement that all DoD aircraft be capable of navigating via Global Positioning System Inertial Navigation Assembly (GINA) to support T45TS mission to train the next generation of warfighters in the use of INS, GPS, and GPS/INS hybrid systems by the end of year 2005. A retrofit program will incorporate GPS in the existing Analog aircraft. There are currently 73 aircraft that will be retrofitted. Kits in 2010 through 2013 address obsolescence issues for the entire fleet.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Kits deliveries and installations began in FY06.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
GPS Kits	24	2.1	12	1.5	12	1.3	12	1.4	13	1.6												
Obsolescence Kits																						
INSTALLATION KITS N/R																						
INSTALL EQUIPMENT																						
INSTALL EQUIPMENT N/R																						
ECO																						
DATA		0.1																				
TRAINING EQUIP																						
SUPPORT EQUIP																						
ILS		0.1																				
OTHER SUPPORT																						
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST			12	*	12	*	12	*	12	*												
TOTAL PROCUREMENT	24	2.3	24	1.5	24	1.3	24	1.5	25	1.6												

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

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: Analog Cockpit

MODIFICATION TITLE: T-45TS GPS(OSIP 010-04)
GPS/Avionics Obsolescence

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 4 Months

PRODUCTION LEADTIME: 21 Months

CONTRACT DATES: FY 2006 Jan 06 | FY 2007 Jan-07 | FY 2008 Jan-08 | FY 2009 Jan-09

DELIVERY DATE: FY 2006 Oct 07 | FY 2007 Oct 08 | FY 2008 Oct 09 | FY 2009 Oct 10

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 PY (24) kits			12	*	12	*																
FY 2006 (12) kits							12	*														
FY 2007 (12) kits									12	*												
FY 2008 (12) kits																						
FY 2009 (13) kits																						
Total			12	*	12	*	12	*	12	*												

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

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3				
Out		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3				

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Totals may not add due to rounding

Exhibit P-3a

MODIFICATION TITLE: AVIONICS OBSOLESCENCE(OSIP 017-04)

MODELS OF SYSTEMS AFFECTED: T-45TS 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, Azmith 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)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
RAMP KITS	12	10.2	12	9.4	9	5.9	9	6.1	9	6.4												
RAMP/Obsolescence Kits			12	0.2	334	0.5	200	1.4	200	1.7												
INSTALLATION KITS N/R		8.2		0.5		0.5		0.5		2.4												
INSTALL EQUIPMENT																						
3)	12	*	12	*	9	*	9	*	9	*												
ASDC	12	0.4	12	0.4	9	0.3	9	0.3	9	0.3												
ATTITUDE INDICATOR									9	0.1												
CP-2092 (P)/A (DDS)	12	0.2	12	0.2	9	0.1	9	0.1	9	0.1												
FFI	12	*	12	*	9	*	9	*	9	*												
MDP	12	2.7	12	2.7	9	2.1	9	2.1	9	2.1												
MFCD	12	1.4	12	1.7	9	1.3	9	1.3	9	1.3												
MU-1053/A (PROGRAM LOADER)	12	*	12	*	9	*	9	*	9	*												
PDU	12	0.2	12	0.2	9	0.1	9	0.1	9	0.1												
PYROTECHNIC	12	*	12	*	9	*	9	*	9	*												
RECORDER							9	0.7	9	0.4												
SADS	12	0.1	12	0.1	9	*	9	*	9	*												
INSTALL EQUIPMENT N/R																						
ECO																						
DATA																						
TRAINING EQUIP		0.5	1	11.6	2	6.2	3	8.4														
SUPPORT EQUIP		0.1																				
ILS																						
OTHER SUPPORT				0.7		0.9		0.9														
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST					12	1.3	13	1.4	11	2.0												
TOTAL PROCUREMENT	132	24.0	145	27.7	447	19.4	324	23.6	328	17.0												

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

*Note: Aircraft was conditionally DD250 without Prior year buys of the Recorder Install Equipment B kits

*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

MODIFICATION TITLE: AVIONICS OBSOLESCENCE(OSIP 017-04)
DP & MDP/RAMP/Avionics Obsolescence

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Field Mod Team

ADMINISTRATIVE LEADTIME: 3 Months

PRODUCTION LEADTIME: 24 Months

CONTRACT DATES: FY 2006 Dec 05 | FY 2007 Dec-06 | FY 2008 Dec-07 | FY 2009 Dec-08

DELIVERY DATE: FY 2006 Dec 07 | FY 2007 Dec 08 | FY 2008 Dec 09 | FY 2009 Dec 10

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY (12) kits					12	1.3																
FY 2006 (13) kits							13	1.4														
FY 2007 (11) kits									11	2.0												
FY 2008 (12) kits																						
FY 2009 (9) kits																						
Total					12	1.3	13	1.4	11	2.0												

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In						3	3	3	3	3	3	3	4	2	3	3	3				
Out						3	3	3	3	3	3	3	4	2	3	3	3				

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Totals may not add due to rounding

Exhibit P-3a

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 2013 respectively, the training command cannot complete 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 prototype kits will be utilized for testing.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: FY07 provides funding for NRE, FY08-10 provides funding for NRE and 21 kits.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
VMTS							2	2.0	10	12.0												
INSTALLATION KITS N/R						2.1		5.0		2.0												
INSTALL EQUIPMENT																						
VMTS Equipment							2	2.0	10	4.0												
INSTALL EQUIPMENT N/R						2.1		4.7		1.0												
ECO																						
DATA						0.1		0.9														
TRAINING EQUIP					1	0.1	1	1.0														
SUPPORT EQUIP								1.2														
ILS						0.1																
OTHER SUPPORT								1.2		2.0												
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST									2	0.2												
TOTAL PROCUREMENT					1	4.5	5	18.0	22	21.2												

Totals may not add due to rounding

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: 12 Months

CONTRACT DATES: FY 2006 FY 2007 FY 2008 Mar-08 FY 2009 Mar-09

DELIVERY DATE: FY 2006 FY 2007 FY 2008 Mar 09 FY 2009 Mar 10

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY () kits																						
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 (2) kits									2	0.2												
FY 2009 (10) kits																						
Total									2	0.2												

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In															2						
Out															2						

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Totals may not add due to rounding

Exhibit P-3a

MODIFICATION TITLE: CRASH SURVIVABLE MEMORY UNIT(OSIP 013-06)

MODELS OF SYSTEMS AFFECTED: T-45TS TYPE MODIFICATION: PS Safety

DESCRIPTION / JUSTIFICATION: The T45 Airborne Data Recorder is not a crash survivable recorder. As a result, flight incident data may not be available after a mishap to assist investigators in in reconstructing the cause of the mishap. T45 should have a modern state of art crash survivable unit to assure critical data is preserved.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Non-Recurring Enigneering began in FY2006.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS					38	0.9																
INSTALLATION KITS N/R				2.8																		
INSTALL EQUIPMENT																						
INSTALL EQUIPMENT N/R					38	0.1																
ECO																						
DATA																						
TRAINING EQUIP																						
SUPPORT EQUIP																						
ILS																						
OTHER SUPPORT																						
INTERIM CONTRACTOR SUPPORT																						
TOTAL PROCUREMENT				2.8	76	1.0																

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2007	
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy / APN5 Aircraft Modifications**							P-1 ITEM NOMENCLATURE **057000, POWER PLANT CHANGES**					
Program Element for Code B Items:							Other Related Program Elements					
	PRIOR YEARS	ID Code	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
QUANTITY												
COST (In Millions)	362.9	A	28.3	24.5	22.5	28.5	27.5	27.3	27.6	27.8	20.5	597.4

DESCRIPTION: This line item funds modifications to all in-service aircraft engines. Power Plant Changes are required throughout the service life of each aircraft to correct flight deficiencies and improve operational readiness while reducing engine operating costs. This program finances the procurement and installation of retrofit kits for all Navy and Marine Corp aircraft engines and related propulsion hardware such as propellers, starters and transmissions. The overall goal of the modifications budgeted in FY 2008 is to
continue modification efforts previously initiated on the engines for the AV-8B, S-3, H-60, E/A6-B, A-6, AH-1W, F-5, F/A-18E/F, H-46, H-3, C-2, E-2, H-53, MH-60, C-130, F/A-18C/D, T-2, P-3, VH-60, UH-1N, T-45, F-16 and V-22 aircraft.

The following depicts the current funding levels budgeted and programed for Power Plant Changes:

OSIP No. / DESCRIPTION	PRIOR YEARS	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
040-00 POWER PLANT CHANGES	362.9	28.3	24.5	22.5	28.5	27.5	27.3	27.6	27.8	20.5	597.4
TOTAL	362.9	28.3	24.5	22.5	28.5	27.5	27.3	27.6	27.8	20.5	597.4

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

Totals may not add due to rounding
DD Form 2454, Jun 86

Exhibit P-3a

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 changes. The power plant change program procures the necessary power plant change retrofit kit, its installation, and technical data. This program provides retrofit kits for all Navy and Marine aircraft engines and propulsion related hardware such as propellers, starters, generators, and transmissions. Reliability Improvements are designed to increase Mean Time Between Failure and Mean Time Between Engine Removal by 30% on average and are expected to generate savings/cost avoidance in excess of $50M annually.

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 6/B, A-6

J85 Engine F-5, T-2

T400 Engine AH1W, UH1N

T406 Engine V22

T56 Engine P-3, C-2, E-2, C-130

T58 Engine H-3, H-46

T64 Engine H-53

T700 Engine H-60, AH-1

TF34 Engine S-3

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E		367.589		65.823		58.458		57.616		60.921
PROCUREMENT										
INSTALLATION KITS										
F100 (F-16)			22	0.110						
F402 (A/V-8B)	2,907	12.675	211	3.524	3,751	1.826	325	0.696	302	0.846
F404 (F/A 18)	9,122	9.637	7	0.443	3,222	2.207	1,797	0.811	560	0.744
F405 (T-45)	1,532	9.100	390	0.760	336	0.405	36	1.800	65	3.250
F414 (F/A18-E/F)	2,094	7.006	446	1.922	2,241	2.246	2,066	1.447	1,042	0.820
J52 (EA 6/B, A-6)	766	8.379	56	0.924	3,280	1.860	1,811	1.864	258	1.355
J85 (F-5, T-2)	535	1.822	88	0.390	90	0.090	40	0.040	60	0.100
T400 (AH1W, UH1N)	875	1.090			318	0.525	159	0.746	88	0.559
T406 (V22)			12	0.099	10	0.096				
T56 (P-3, C-2, E-2, C-130)	4,980	8.800	80	0.956	1,216	6.251	1,205	4.462	2,043	12.023
T58 (H-3, H-46)	827	1.576	120	0.404	674	0.850	695	1.875	127	0.646
T64 (H-53)	1,279	2.198	4,477	4.739	2,696	4.970	3,258	5.150	2,905	5.100
T700 (H-60, AH-1)	4,795	24.042	1,333	8.831	447	1.320	200	0.900	200	0.900
TF34 (S-3)	346	0.450								
Completed ECPs From Prior Years	35,198	200.505								
INSTALLATION KITS N/R										
INSTALL EQUIPMENT										
INSTALL EQUIPMENT N/R										
ECO										
DATA		0.371		0.050		0.050		0.050		0.050
Non Recuring		0.164								
TRAINING EQUIP										
SUPPORT EQUIP		0.106						0.050		0.050
ILS		4.808		0.505		0.300		0.200		0.200
OTHER SUPPORT		37.290		3.207		0.811		0.551		0.602
INTERIM CONTRACTOR SUPPORT										
INSTALLATION COST	7,753	32.959	1,557	1.418	968	0.673	1,209	1.814	756	1.288
TOTAL PROCUREMENT	73009	362.9	8,799	28.3	19,249	24.5	12,801	22.5	8,406	28.5

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.

METHOD OF IMPLEMENTATION: Current with engine/module repair (where installation cost is zero), or by forced retrofit (shown below).

ADMINISTRATIVE LEADTIME: Average of 6 Months PRODUCTION LEADTIME: Average of 12 Months

CONTRACT DATES: FY 2006 Varies FY 2007 Varies FY 2008 Varies FY 2009 Varies

DELIVERY DATE: FY 2006 Varies FY 2007 Varies FY 2008 Varies FY 2009 Varies

($ in Millions)

Cost:	Prior Years		FY06		FY07		FY08		FY09	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS (7753) kits	7,753	32,959								
FY 2006 (1557) kits			401	410						
FY 2007 (968) kits			1,156	1,008	968	673				
FY 2008 (1209) kits							1,209	1,814		
FY 2009 (756) kits									756	1,288
Total	7,753	32,959	1,557	1,418	968	673	1,209	1,814	756	1,288

Installation Schedule

	Prior Years	FY06				FY07				FY08				FY09			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	7753	389	389	389	390	242	242	242	242	302	302	302	303	189	189	189	189
Out	7753	389	389	389	390	242	242	242	242	302	302	302	303	189	189	189	189

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2007	
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy / APN5 Aircraft Modifications**							P-1 ITEM NOMENCLATURE **057100, JPATS SERIES**					
Program Element for Code B Items:							Other Related Program Elements					
	PRIOR YEARS	ID Code	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
QUANTITY												
COST (In Millions)	1.8	A	0.7	1.6	9.9	9.0	7.0		1.6	1.6	82.0	115.2

DESCRIPTION: This line item funds modifications to T-6 aircraft. The T-6 Texan II is a tandem-seat, turboprop aircraft derivative of the Pilatus PC-9 aircraft powered by a single Pratt & Wittney PT6A-68 engine. It serves as the aircraft component of the JPATS integrated primary pilot training system which replaces the T-34C primary training aircraft. The overall goal of the modifications budgeted in FY 2008 is to correct discrepancies and deficiencies discovered after delivery of the aircraft, maintain joint configuration with Air Force aircraft and the joint program. It also incorporates major upgrades to the aircraft cockpit, navigation system, and aircrew life support system (ALSS).

OSIP No. / DESCRIPTION	PRIOR YEARS	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
011-04 JPATS CORRECTION OF DEFICIENCIES	1.8	0.7	1.6	9.9	9.0	7.0		1.6	1.6	82.0	115.2
TOTAL	1.8	0.7	1.6	9.9	9.0	7.0		1.6	1.6	82.0	115.2

Exhibit P-3a

MODIFICATION TITLE: JPATS CORRECTION OF DEFICIENCIES(OSIP 011-04)

MODELS OF SYSTEMS AFFECTED: T-6A TYPE MODIFICATION: PS Safety

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

VHF radio ECP (ECP-055) Provide for the correction of volume and reception level discrepancies. Current volume inequities between the UHF/VHF radios make the radio unintelligible and a safety concern for aircrew.
Nose Wheel Centering (ECP-052) Safety modification to provide positive nose wheel centering inflight. Category 1 Deficiency,
MLG door tie rods Retrofit of improved durability MLG door tie rod.

MLG Sidebrace Redesign (ECP-059) Re-work of existing MLG drag link. Improve grease fitting access to maintainablity improvement.
Oil Pressure Warning Safety modifications to correct oil pressure cockpit warning indications and associated systems to improving aircrew situational awareness and overall systems operation.
OBOGS upgrades (ECP-049) Safety modifications to improve the normal and emergency aircrew oxygen supply systems. Mods address increased supply , delivery control box and software logic corrections.
Trim System Redesign Safety modification to reduce trim actuator force limit, decrease activation speed. Results in shorter landing distances.
Braking (anti-skid) Safety modification to improve the short field abort and stopping distances of the aircraft through the introduction of improved tires and braking system.
NACWS replacement Safety modification to replace the obsolete and unsupportable Naval Aircraft Collision Warning System (NACWS) due to FAA changes in the National Airspace System.
Ejection Mode Selector Modifies Interseat Sequencing System (Ejection system) to add two additional modes allowing command ejection authority designated to each seat.
ASV Regulator/EL Panel Safety modification addressing excessive force required to breathe utilizing current Anti-Suffocation Valve (ASV). This Correction will solve unconscience 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.
Landing Gear Doors & Bellcrank Structural fixes to gear doors & bellcrank to eliminate cracking.
UWARS addition to ejection seat Safety modification to add UWARS to Ejection Seat. Current system lacks UWARS, resticting overwater flight operations.
Acceptance of Ground Power (ECP-056) Operational modification to allow acceptance of electric power commercial ground power carts.
Life Raft Addition to Ejection Seat Safety modification to install Life raft to ejection seat and incorporate URT-140 radio. Current system lacks raft, restricting overwater flight operations.
Cockpit Improvements (ECP-058/063) Safety and Human Factors modification to the cockpit to improve aircrew efficiencies and to eliminate excessive pilot workload and other dangerous situations. Modifications include rearview mirrors, improved cockpit storage, improved night lighting, reducing excessive ambient noise, improved trim relays, open avionic wire bundles, communication audio volume solutions, nose wheel position/positioning systems and flight instrument display issues.

Increase Gross Weight Structural mods to increase weight capacity. Need driven by weight additions for Anti-Skid, Life Raft, Oil Pressure warning system.
OBOGS Low Pressure Switch Safety modification to improve OBOGS low pressure switch. In-flight failures have caused numerous aborts.
Condenser blower motor-longer life Replace air conditioning blower with longer life, brushless motor, reducing life cycle costs
Supplemental Oxygen System Safety modification to increase volume of emergency oxygen. Class A safety board recommendation.
GPS receiver upgrade-LAAS/WAAS Operational upgrade to GPS system-allows aircraft to utilize LAAS/WAAS approaches.
Engine PMU upgrade Operational modification to fix engine power management unit (PMU) software. Mod required to eliminate hot-start abort conditions.
ANTI-G valve replacement Safety modifiction to improve Anti-G valve with rust resistant valve. Rusty valves have caused numerous inflight emergencies (loss of pressurization)
Avionics Obsolescence Replace various Avionics components due to supplier and/or technical obsolescence.
Aft Fuselage Structural Upgrade 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.
Sealed Rudder Position Sensor 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.

Engine Oil Dipstick and Bottle 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.
MFOQA Improve the flight data recorder, change the data cartridge adapter, and install a larger capacity data storage module (PCMCIA) to allow for participation in the Military Flight Operations Quality Assurance (MFOQA) Program. MFOQA is part of a DoD-wide safety emphasis.

Emergency Locator Transmitter 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.
Communications Cord/Oxygen Hose 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.
Unique Identification (UID) 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).
Canopy Fracturing Initiation System (CFIS) 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.
Avionics Upgrade Program (AUP) 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.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Feb 93 received MS 0 and MS I approval, Aug 95 received MSII and LRIP approval, Dec 01 received MS III approval, and Navy IOC occurred 4th Qtr FY03.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
AFT Fuselage Structural Upgrades			20	*	24	*	5	*														
ASV Regulator/EL Panel	14	0.1	46	0.2	14	0.2	10	*	14	0.1												
Acceptance of Ground Power	43	0.1																				
Anti-G Valve					17	*	2	*	1	*												
Avionics Obsolescence					49	*	49	*	49	*												
Avionics Upgrade Program																						
Braking Improvement (Anti-skid)					4	0.1	16	1.9	9	1.2												
CFIS Redesign							3	0.1	4	0.2												
Cockpit Improvements	7	*	16	*	2	0.1	4	*	3	*												
Communication Cord/Oxygen Hose							24	0.2	24	0.3												
Condenser Blower Motor - Longer					1	*	1	*	1	*												
Ejection Mode Selector					5	*	24	0.1	19	0.1												
Emergency Locator Transmitter							27	0.6	24	0.5												
Engine Oil Dipstick and Bottle			51	*			14	*	12	*												
Engine PMU Upgrade							1	*	2	*												
GPS Receiver Upgrade - LAAS					1	*	5	*	12	0.1												
Increase Gross Weight					1	*	11	0.1	14	0.1												
Landing Gear Doors & Bellcrank	66	0.1			12	0.1	24	0.2	12	0.1												
Life Raft Addition to Ejection					20	0.1	24	0.3	7	0.1												
MFOQA					1	*	20	0.1	30	0.2												
MLG Door Tie Rods					2	*	18	0.1	18	0.1												
MLG Sidebrace Redesign	36	0.1																				
NACWS Replacement					3	0.1	16	1.4	18	2.3												
Nose Wheel Centering	36	0.2																				
OBOGS Low Pressure Switch					1	*	24	0.1	24	0.1												
OBOGS upgrades (ECP-049)	24	0.2	9	*	1	*	3	*														
Oil Pressure Warning			23	0.1	21	0.2	3	*														
Sealed rudder Position Sensor					6	*	36	*	10	*												
Supplemental Oxygen System					1	*	2	*	3	*												
Trim System Redesign			8	*	10	0.2	59	0.1	9	0.1												
UWARS Addition to Ejection Seat					44	0.1	6	0.1	1	*												
Unique Identification (UID)							3	0.1	4	0.1												
VHF Radio (Audio Volume)	39	0.1																				
INSTALLATION KITS N/R		*				*		0.7		0.3												
INSTALL EQUIPMENT																						
AFT Fuselage Structural Upgrade					24	*	5	*														
ASV Regulator/EL Panel	14	*			14	*	10	*	14	*												
Acceptance of Ground Power	43	0.1																				
Anti-G Valve					17	*	2	*	1	*												
Avionics Obsolescence					49	*	49	*	49	*												
Avionics Upgrade Program																						
Braking Improvement (Anti-skid)					4	0.1	16	*	9	*												
CFIS Redesign							3	*	4	*												
Cockpit Improvements	7	*			2	*	4	*	3	*												
Communication Cord/Oxygen Hose							24	*	24	*												
Condenser Blower Motor - Longer					1	*	1	*	1	*												
Ejection Mode Selector					5	*	24	*	19	*												
Emergency Locator Transmitter							27	*	24	*												
Engine Oil Dipstick and Bottle							14	*	12	*												
Engine PMU Upgrade							1	*	2	*												
GPS Receiver Upgrade - LAAS					1	*	5	*	12	*												
Increase Gross Weight					1	*	11	*	14	*												
Landing Gear Doors & Bellcrank	66	0.1			12	*	24	*	12	*												
Life Raft Addition to Ejection					20	*	24	*	7	*												
MFOQA					1	*	20	*	30	*												
MLG Door Tie Rods					2	*	18	*	18	*												
MLG Sidebrace Redesign	36	0.1																				
NACWS Replacement					3	*	16	*	18	*												
Nose Wheel Centering	36	0.3																				
OBOGS Low Pressure Switch					1	*	24	*	24	*												
OBOGS upgrades (ECP-049)	24	*			1	*	3	*														
Oil Pressure Warning					21	*	3	*														
Sealed Rudder Position Sensor					6	*	36	*	10	*												
Supplemental Oxygen System					1	*	2	*	3	*												
Trim System Redesign					10	*	59	*	9	*												
UWARS Addition to Ejection Seat					44	0.1	6	*	1	*												

Totals may not add due to rounding

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
Unique Identification (UID)							3	*	4	*												
VHF Radio (Audio Volume)	39	0.1																				
INSTALL EQUIPMENT N/R				*		*		*		*												
ECO																						
DATA						*		*		*												
TRAINING EQUIP	1	*	1	*	19	*	8	*	17	*												
SUPPORT EQUIP						*		*		*												
ILS						*		*		*												
OTHER SUPPORT						*				*												
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST	265	0.1	173	0.3	240	0.1	434	3.2	324	2.9												
TOTAL PROCUREMENT	796	1.8	347	.7	739	1.6	1,310	9.9	989	9.0												

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

NOTE: 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

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 Sidebrace Redesign/Trim System Redesign/Landing Gear Doors & Bellcrank/UWARS Addition to Ejection Seat/Acceptance of Ground Power/Life Raft Addition to Ejection Seat/Increase Gross Weight/OBOGS Low Pressure Switch/ GPS Repeater for Simulator/Baro Altimeter Repeater for Simulator/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

METHOD OF IMPLEMENTATION: CONTRACTOR FIELD MOD TEAM

ADMINISTRATIVE LEADTIME: 0 Months

PRODUCTION LEADTIME: 0 Months

CONTRACT DATES: FY 2006 Various; FY 2007 Various; FY 2008 Various; FY 2009 Various

DELIVERY DATE: FY 2006 Various; FY 2007 Various; FY 2008 Various; FY 2009 Various

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY (265) kits	265	0.1																				
FY 2006 (173) kits			173	0.3																		
FY 2007 (240) kits					240	0.1																
FY 2008 (434) kits							434	3.2														
FY 2009 (324) kits									324	2.9												
Total	265	0.1	173	0.3	240	0.1	434	3.2	324	2.9												

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	265	43	43	43	44	60	60	60	60	109	109	109	107	81	81	81	81				
Out	265	43	43	43	44	60	60	60	60	109	109	109	107	81	81	81	81				

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Totals may not add due to rounding

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2007	
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy / APN5 Aircraft Modifications**							P-1 ITEM NOMENCLATURE **057500, AVIATION LIFE SUPPORT MODS**					
Program Element for Code B Items:							Other Related Program Elements					
	PRIOR YEARS	ID Code	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
QUANTITY												
COST (In Millions)	4.1	A	0.3	0.4	8.4	7.3	8.5	13.6	11.3	11.5	121.4	186.1

DESCRIPTION:
The specific modifications budgeted and planned are:
(1) Detector installation on rotary and cargo aircraft to identify the presence of chemical warfare (CW)vapors.
(2) The addition of the Mobile Aircrew Restraint System (MARS) to helicopters. MARS will replace existing fixed length tether with a locking retraction system that allows safe movement of the aircrew within the cargo area while affording protection during a mishap or combat. MARS will be mounted to the aircraft overhead.
(3) Installation of new aircrew endurance modifications in legacy ejection seat equipped aircraft due to extended range missions.
(4) Installation of new aircrew endurance modifications in non-ejection seat equipped aircraft due to extended range missions.
(5) Installation of the Joint Helmet Mounted Cueing System (JHMCS) night mission system into tactical aircraft. This will provide the ability to cue and display weapons and sensors at night using a narrow field of view Night Vision Device (NVD) that integrates the JHMCS cueing and display symbology and scene viewed through the NVD.

OSIP No. / DESCRIPTION	PRIOR YEARS	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
002-05 CW DETECTORS	0.5	0.3	0.4	4.2	5.3	5.6	5.9	5.9	5.9	54.5	88.6
001-07 MARS				2.0	0.1	0.5	5.2	5.4	5.6	66.9	85.7
001-08 EJECTION SEAT ENDURANCE				2.1	1.6						3.7
004-09 NON-EJECTION SEAT ENDURANCE					0.3	1.0	1.0				2.2
007-10 JHMCS (NVD)						1.5	1.5				3.0
TOTAL	0.5	0.3	0.4	8.4	7.3	8.5	13.6	11.3	11.5	121.4	183.2

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

Totals may not add due to rounding
DD Form 2454, Jun 86

CLASSIFICATION: **UNCLASSIFIED**
(Exhibit P-40)

Exhibit P-3a

MODIFICATION TITLE: CW DETECTORS(OSIP 002-05)

MODELS OF SYSTEMS AFFECTED: AH-1W/Z-CH-53-KC-130J/T-MH-60S-MV-22B-UH-1N/Y TYPE MODIFICATION: SAFETY

DESCRIPTION / JUSTIFICATION: Installation of the Joint Chemical Agent Detector (JCAD) will automatically and simultaneously detect, identify and qualify CW agent vapors by agent classes (e.g. nerve, blister and blood agents). The JCAD Detectors will be provided to NAVAIR by the Joint Chemical Biological Defense Program (CBDP) office. The CH-53 installation has 2 JCADS per plaform. Installation of the Joint Service Lightweight Standoff Chemical Agent Detector (JSLSCAD) on the CH-53 will provide standoff detection of CW agents at a distance of 0-5 km. The CH-53 installaiton has 1 JSLSCAD per platform.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: JPEO (CBD) MS-C for JCAD detector is planned for 2nd QTR FY07. All CW Dector CH-53 installation equipment will be provided to NAVAIR by CBDP procurements. The kits for each platform are unique. The first two kits for each platform will be for validation and verification and installed the same year. The additional kits will follow the schedule below.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
AH-1W/Z INSTALLATION KITS									2	*												
CH-53E INSTALLATION KITS					2	*	20	0.2	31	0.7												
KC-130 INSTALLATION KITS																						
MH-53E INSTALLATION KITS																						
MH-60S/R INSTALLATION KITS									1	0.2												
MV-22B INSTALLATION KITS									2	*												
UAV INSTALLATION KITS									1	0.2												
UH-1N/Y INSTALLATION KITS							2	*	21	0.2												
INSTALLATION KITS N/R		0.4		0.2		0.1		0.6		1.4												
INSTALL EQUIPMENT																						
INSTALL EQUIPMENT N/R						*		0.9		0.6												
ECO																						
DATA						*		0.9		0.4												
TRAINING EQUIP						*		0.2		0.1												
SUPPORT EQUIP						*																
ILS						*		1.0		0.3												
OTHER SUPPORT		0.1		0.1		0.1		0.3		0.6												
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST					2	0.1	2	0.1	22	0.5												
TOTAL PROCUREMENT		.5		.3	4	.4	24	4.2	80	5.3												

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

Totals may not add due to rounding

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: AH-1W/Z-CH-53-KC-130J/T-MH-60S-MV-22B-UH-1N/Y MODIFICATION TITLE: CW DETECTORS(OSIP 002-05)

INSTALLATION INFORMATION: NAVY DURING SDLM, NAVY DRIVE-IN MOD, CONT4ACOR DURING SDLM, CONTRACTOR DRIVE-IN MOD

METHOD OF IMPLEMENTATION: DEPOT, CONTRACTOR

ADMINISTRATIVE LEADTIME: Various Months PRODUCTION LEADTIME: Various Months

CONTRACT DATES: FY 2006 FY 2007 FY 2008 FY 2009

DELIVERY DATE: FY 2006 FY 2007 FY 2008 FY 2009

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS () kits																						
FY 2006 (0) kits																						
FY 2007 (2) kits					2	0.1																
FY 2008 (22) kits							2	0.1	20	0.4												
FY 2009 (58) kits									2	0.1												
FY 2010 (104) kits																						
FY 2011 (145) kits																						
FY 2012 (155) kits																						
FY 2013 (143) kits																						
TO COMPLETE (377) kits																						
Total	0	0.0	0	0.0	2	0.1	2	0.1	22	0.5												

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In									2				2	5	5	6	6				
Out									2				2	5	5	6	6				

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Totals may not add due to rounding

Exhibit P-3a

MODIFICATION TITLE: MARS(OSIP 001-07)

MODELS OF SYSTEMS AFFECTED: C-130/H-46/CH-53D/MV-22B/H-60S/H-60R/MH-53E/CH-53E/UH-1Y TYPE MODIFICATION: SAFETY

DESCRIPTION / JUSTIFICATION: Safety initiative to replace the existing mobile cremember 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 a "g" and velocity sensitive locking mechanism and crewmember harness. The MARS retractor systems and associated aircraft installation modifications will be procured and provided to the NAVAIRSYSCOM by the PMA 202 office.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: MS-C for MARS installation in large cabin a/c planned for 3rd Qtr FY10. Small cabin (H-60R) is in production.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
C-130 INSTALL(5 per a/c)																						
CH-53D INSTALL (10 per a/c)																						
CH-53E INSTALL (10 per a/c)																						
H-46 INSTALL (5 per a/c)																						
H-60S INSTALL (2 per a/c)																						
MH-53E INSTALL (11 per a/c)																						
MV-22B INSTALL (5 per a/c)																						
UH-1Y INSTALL (4 per a/c)																						
INSTALLATION KITS N/R										0.1												
INSTALL EQUIPMENT																						
C-130 EQUIPMENT (5 per a/c)																						
CH-53D EQUIPMENT (10 per a/c)																						
CH-53E EQUIPMENT (10 per a/c)																						
H-46 EQUIPMENT (5 per a/c)																						
H-60R EQUIPMENT (2 per a/c)							356	1.5														
H-60S EQUIPMENT (2 per a/c)																						
MH-53E EQUIPMENT (11 per a/c)																						
MV-22B EQUIPMENT (5 per a/c)																						
UH-1Y EQUIPMENT (3 per a/c)																						
INSTALL EQUIPMENT N/R																						
ECO																						
DATA																						
TRAINING EQUIP																						
SUPPORT EQUIP																						
ILS																						
OTHER SUPPORT								0.5		*												
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST																						
TOTAL PROCUREMENT							356	2.0		.1												

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

Totals may not add due to rounding

Exhibit P-3a

MODIFICATION TITLE: EJECTION SEAT ENDURANCE(OSIP 001-08)

MODELS OF SYSTEMS AFFECTED: AV-8B/EA-6B/F/A-18/B/C/D/T-45/TAV-8B TYPE MODIFICATION: SAFETY

DESCRIPTION / JUSTIFICATION: New cushion systems in front line ejection system equiped aircraft. Incorporates phase changing textiles and "rate dependent" materials to reduce significant aircrew fatique being experienced during long duration flights. New cushions will be integrated into complex ejection seat designs to eliminate interference. There are no installation costs because the seat cushions are just being replaced. EA6B requires rerouting of the aircraft system, so it is the only platform that needs installation kits.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Milestone C is planned for 2nd QTR FY08.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
EA-6B INSTALL(4 per a/c)							460	0.6														
INSTALLATION KITS N/R								0.3		0.4												
INSTALL EQUIPMENT																						
AV-8B EQUIP (1 per a/c)									130	0.2												
EA-6B EQUIP (4 per a/c)							460	0.1														
F/A-18(B) EQUIP (2 per a/c)									28	*												
F/A-18(C) EQUIP (1 per a/c)									390	0.5												
F/A-18(D) EQUIP (2 per a/c)									137	0.2												
T-45 EQUIP (2 per a/c)							376	0.5														
TAV-8B EQUIP (2 per a/c)									32	*												
INSTALL EQUIPMENT N/R																						
ECO																						
DATA								0.2		0.2												
TRAINING EQUIP																						
SUPPORT EQUIP																						
ILS								0.1		0.1												
OTHER SUPPORT								0.4														
INTERIM CONTRACTOR SUPPORT																						
TOTAL PROCUREMENT							1,296	2.1	717	1.6												

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

Totals may not add due to rounding

Exhibit P-3a

MODIFICATION TITLE: NON-EJECTION SEAT ENDURANCE(OSIP 004-09)

MODELS OF SYSTEMS AFFECTED: H-60/H-53/UH-1/TH-57/E-2/CH-46 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.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Milestone C is planned for 2nd QTR FY09.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
INSTALLATION KITS N/R																						
INSTALL EQUIPMENT																						
CH-46 (2 per a/c)									205	0.2												
E-2 (2 per a/c)																						
H-53 (2 per a/c)																						
H-60 (2 per a/c)																						
MV-22 (2 per a/c)																						
TH-57 (2 per a/c)																						
UH-1 (2 per a/c)																						
INSTALL EQUIPMENT N/R										0.1												
ECO																						
DATA																						
TRAINING EQUIP																						
SUPPORT EQUIP																						
ILS																						
OTHER SUPPORT																						
INTERIM CONTRACTOR SUPPORT																						
TOTAL PROCUREMENT									205	.3												

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

Totals may not add due to rounding

BUDGET ITEM JUSTIFICATION SHEET P-40												DATE: February 2007
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy / APN5 Aircraft Modifications**							P-1 ITEM NOMENCLATURE **057600, COMMON ECM EQUIPMENT**					
Program Element for Code B Items:							Other Related Program Elements					
	PRIOR YEARS	ID Code	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
QUANTITY												
COST (In Millions)	564.0	A	66.5	35.7	65.8	67.0	49.6	118.7	160.3	153.1	2449.1	3729.8

DESCRIPTION: This line item funds common equipment (B kits) for multiple aircraft. The overall goal of the modification budget is to provide a reprogrammable radar and missile warning system, attacking missile declaration and sector direction finding, laser detection, and self protection capability devices to applicable user aircraft.

OSIP No. / DESCRIPTION	PRIOR YEARS	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
072-88 AN/APR-47 DETECTION	253.9	16.2	0.7								270.8
014-90 AN/APR-39(V)2 RWR	191.8	3.6									195.4
006-00 ALE-39 to 47 RETROFIT	66.5	1.5			4.5	4.6	4.0	6.5	6.8	6.3	100.7
007-03 IDECM	51.7	42.2	35.1	36.1	36.5	37.3	38.8	40.0	41.2	99.1	457.9
014-06 ALQ-157		3.0									3.0
005-08 DIRCM				29.7	26.0	2.8	44.4	45.1	45.8	2134.6	2328.3
003-09 F-18A+/C/D & AV-8 DRFM JAMMER						4.9	31.6	68.8	59.4	209.0	373.7
TOTAL	564.0	66.5	35.7	65.8	67.0	49.6	118.7	160.3	153.1	2449.1	3729.8

Exhibit P-3a

MODIFICATION TITLE: AN/AAR-47 DETECTION(OSIP 072-88)

MODELS OF SYSTEMS AFFECTED: CH-46E, CH-53A/D/E, RH-53D, MH-53E, UH-1, AH-1, C 130, P-3, HH-60H, SH-60B, VH-3, VH-60, V-22

TYPE MODIFICATION: MISSION CAPABILITY

DESCRIPTION / JUSTIFICATION: The AN/AAR-47 warns of approaching missiles by detecting radiation associated with rocket motor ignition 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 will be interfaced directly to the ALE-39/47 countermeasures dispenser. Without the AAR-47, helicopters and Fixed Wing Aircraft have no capability to detect an infared missle attack.

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: FY-97/98/99 funded a microprocessor upgrade to replace the 8086 board with an 80486 running new software to enhance threat declaration and to better control false alarms. This software delivers the maximum performance attainable using current sensors. FY 2006 and beyond also funds a sensor upgrade. The current sensors are starting to wear out after 5 years, due to temperature sensitive materials. The new sensors will remove this limitation and will also provide improved performance. This will allow the AAR-47 to better respond to new threats via software changes only. Both upgrades are 100 percent retrofit. There are 2500 systems for installation on all applicable aircraft. TEMP#543 documents the current requirement.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
INSTALLATION KITS N/R																						
INSTALL EQUIPMENT																						
ECO (SENSOR UPGRADE EQUIP ECO)	1,141	49.4	60	5.4																		
FY05 SUP (CP UPGRADE EQUIP ECO)	1	0.3																				
FY05 Sup (Sensor Upgrade Equip)	98	3.7																				
FY06 Title IX Sup (Dynamic Blk ECO)			500	8.1																		
INSTALL EQUIP (AAR-47 EQUIP)	1,250	90.2																				
Title 9 Sup (Sensor Upgrade)	151	11.3																				
INSTALL EQUIPMENT N/R		24.6																				
ECO																						
ECO (CP UPGRADE EQUIP ECO)		8.0																				
ECO (Dynamic Blanking)		1.4																				
FY05 Sup (Dynamic Blanking ECO)		9.0																				
Title 9 Sup (Dynamic Blanking)		0.6																				
DATA		1.8																				
TRAINING EQUIP		0.6																				
SUPPORT EQUIP		5.6																				
ILS		5.1		0.1		0.1																
OTHER SUPPORT		42.5		2.6		0.6																
INTERIM CONTRACTOR SUPPORT																						
TOTAL PROCUREMENT	2,641	253.9	560	16.2		.7																

Totals may not add due to rounding

Exhibit P-3a

MODIFICATION TITLE: AN/APR-39(V)2 RWR(OSIP 014-90)

MODELS OF SYSTEMS AFFECTED: AN/APR-39(V)2, AH-1W, AH-1Z, UH-1N, UH-1Y, HH-60H, CH-53D/E/HM-53E, KC-130F/R/T, VH-3D, VH-60N, SH-60B, MV-22, AN/V4-2/2 (V), VH-3, VH-50, SH-60R, MH-60S

TYPE MODIFICATION: MISSION CAPABILITY

DESCRIPTION / JUSTIFICATION: The AN/APR-39A(V)2 Radar Signal Detecting Set (RSDS) is designed for use on US Marine Corps, US Navy, and US Army Assault Support aircraft to provide onboard warning of radar threats. The AN/APR-39A(V)2 provides control and display of the entire Assault Support Equipment (ASE) Suite, and is required for control and display of the AN/AVR-2/2A(V) and the AAR-47. The system consists of five antenas, one Cockpit Control Unit, one or two Display indicators, two to four receivers, and one processor. The AN/AVR-2/2A(V) laser detection set (LDS) is designed for use on U.S. Army, U.S. Marine Corps, and U.S. Navy Assault Support aircraft. The AN/AVR-2/2A(V) reduces the susceptability of helicopters to attack from laser guided and laser aided threats by providing warning of laser illumination. The system consists of four to six sensor units and one or two comparators. The system requires the APR-39A(V)2 Cockpit Control Unit for On/Off and BIT. AVR-2/2A(V) warnings are displayed on the APR-39A(V)2 cockpit display.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: The U.S. Army awarded a production contract for the AVR-2 in FY 1990 and for the AVR-2A(V) in FY 1994. Procurement for the U.S. Marine Corps and the U.S. Navy is via Military Interdepartmental Purchase Request (MIPR) to the U.S. Army. The AN/APR-39A(V)2 is in the production phase of development (MSIII 3Q/96). The U.S. Navy is the lead service of this joint service program. The U.S. Army awarded the production contract 3Q/96, and continues to administer the contract. U.S. Navy delivery of production systems commenced June 1999. Procurement of an AN/AVR-2/2A(V) in the AN/APR-39(V)2 for the additional requiring platforms will be by extension of application with the required follow-on test and evaluation conducted on each platform.
Version B of AN/APR-39A/B(V)2 is glass cock-pit compatible for H-1 upgrades.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
INSTALL KITS	7	0.2																				
INSTALLATION KITS N/R																						
INSTALL EQUIPMENT																						
GWOT FY05 Supp (Install Equp)APR39A	24	5.0																				
INSTALL EQUIP (AVR-2)	254	32.2																				
INSTALL EQUIP AN/APR-39A/B(V)2	462	73.2	1	0.2																		
Equip)39a	4	5.1																				
INSTALL EQUIPMENT N/R		16.7																				
ECO																						
ECO		18.0		2.9																		
DATA		1.0																				
TRAINING EQUIP		1.0																				
SUPPORT EQUIP		2.1																				
ILS		6.3																				
OTHER SUPPORT		31.1		0.5																		
INTERIM CONTRACTOR SUPPORT																						
TOTAL PROCUREMENT	751	191.8	1	3.6																		

Totals may not add due to rounding

Exhibit P-3a

MODIFICATION TITLE: ALE-39 to 47 RETROFIT(OSIP 006-00)

MODELS OF SYSTEMS AFFECTED: F-14B/D(114), CH-53E(148), EA-6B(80), AH-1W(180), CH-46E(202), UH-1N(86), KC-130FRT(25), CH-53D(36), MH-53D(34), F/A-18C/D(184), AV-8B(133)

TYPE MODIFICATION: MISSION CAPABILITY

DESCRIPTION / JUSTIFICATION: The replacement of the AN/ALE-39 Dispenser System with the AN/ALE-47 Dispenser System will correct some serious safety problems and greatly improve aircraft survivability. The AN/ALE-39 system has serious problems with Things Falling Off Aircraft (TFOA) as well as numerous occurrences of uncommanded firing of chaff and flare stores. The reliability of the ALE-39 is another major factor with continuous reports of hung or unfired stores, a serious ground safety concern as well as serious aircraft survivability concern. The AN/ALE-47 System has been developed to correct the safety issues of the ALE-39. USD(Acq) memo of November 1986 directed U.S. Navy and U.S. Army to participate in EMD phase. Requirements established by Air Force Statement of Operational Requirements Document (SORD) number 341.88-aa-D of 8 July 92. OSIP 006-00 had been cancelled beginning FY04, but operational requirements in support of the Global War on Terrorism have resulted in accelerated installs and additional aircraft being identified for retrofit incorporation.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: The AN/ALE-47 System is in production and being installed in multiple U.S. Navy and Marine aircraft. MS III decision awarded Mardh 1993. FY 2000 systems procured under Air Force contract F09603-01-D-0367. Future procurements to be ordered under U.S. Air Force production contract to be awarded in September 2006.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
AV8 Install Kits (FY05 Sup)	48	0.9																				
EA6B Install Kits (FY06 Sup)			34	0.2																		
INSTALLATION KITS (A Kits)	637	1.6							2	0.1												
INSTALLATION KITS N/R		1.8		0.2						2.7												
INSTALL EQUIPMENT																						
GWOT FY05 SUPP (Install Equip) B Kits	246	3.9																				
INSTALL EQUIP (39 SEQUENCER SWITCHES)	1	2.0																				
INSTALL EQUIP (TACAIR/HELOS)	1,214	30.4							2	0.1												
Title 9 Supplemental (Install Equip)	7	5.6																				
INSTALL EQUIPMENT N/R																						
ECO																						
ECO		0.3																				
DATA		0.1																				
TRAINING EQUIP		3.1		0.1																		
SUPPORT EQUIP		5.4								0.2												
ILS		0.8																				
OTHER SUPPORT		7.8		0.8						1.5												
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST		2.8		0.3																		
TOTAL PROCUREMENT	2,153	66.5	34	1.5					4	4.5												

terisk (*) indicates amount value less than $51

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: F-14B/D(114), CH-53E(148), EA-6B(80), AH-1W(180), CH-46E(202), UH-1N(86), KC-130FRT(25), CH-53D(36), MH-53D(34), F/A-18C/D(184), AV-8B(133)

MODIFICATION TITLE: ALE-39 to 47 RETROFIT(OSIP 006-00)

INSTALLATION INFORMATION: ALE-47 Retrofit requires different types of Installation Equipment kits based on the quantity of dispensers in each aircraft. TACAIR (F-14B/D, F/A-18, EA-6B) and Helos (CH-53D, CH-46, AH-1W, UH-1) require two (2) dispensers per aircraft, C-130 F/R/T require 10 dispensers per aircraft, and AV-8B require 6 dispensers per aircraft.

METHOD OF IMPLEMENTATION: Depot Level Installations

ADMINISTRATIVE LEADTIME: 3 Months

PRODUCTION LEADTIME: 7 Months

CONTRACT DATES: FY 2006 ____ FY 2007 ____ FY 2008 ____ FY 2009 Dec-08

DELIVERY DATE: FY 2006 ____ FY 2007 ____ FY 2008 ____ FY 2009 Jul 09

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS () kits																						
FY 2006 () kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 (2) kits																						
Total	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0												

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In																	2				
Out																					

	FY 2011				FY 2012				FY 2013					
	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Total
In														
Out														

Totals may not add due to rounding

Exhibit P-3a

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 and Fiber Optic Towed Decoy (FOTD) that improves the survivability of aircraft against modern RF threats. The IDECM RFCM Operational Requirements Document (ORD) numbers are 494-88-98, 544-88-00 and 624-78-03. 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 and the ALE-55 (FOTD). This Operational Safety Improvement Program is for the onboard portion of the IDECM Block 2 and 3 configuration.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: IDECM Block 2 received MS III approval in January 2004. FRP 1,2 and 3 were awarded in FY04, FY05 and FY06 respectively. Annual production contract awards are expected to continue until the total inventory objective of 424 systems have been procured.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
INSTALLATION KITS N/R																						
INSTALL EQUIPMENT																						
ALQ-214					15	24.8	16	27.0	17	29.4												
INSTALL EQUIP (B Kits)	15	28.3	18	32.6																		
SCA					4	1.1	21	4.0	10	2.1												
INSTALL EQUIPMENT N/R		0.3																				
ECO																						
ECO (ALR-67V3)		1.8																				
DATA		0.1																				
TRAINING EQUIP																						
SUPPORT EQUIP																						
ILS		*		0.4		0.8		0.8		0.8												
OTHER SUPPORT		21.2		9.1		8.3		4.3		4.2												
INTERIM CONTRACTOR SUPPORT																						
TOTAL PROCUREMENT	15	51.7	18	42.2	19	35.1	37	36.1	27	36.5												

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

Totals may not add due to rounding

Exhibit P-3a

MODIFICATION TITLE: ALQ-157(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 KC-130'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.

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)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
INSTALLATION KITS N/R																						
INSTALL EQUIPMENT																						
INSTALL KITS			6	1.8																		
INSTALL EQUIPMENT N/R																						
ECO																						
DATA																						
TRAINING EQUIP																						
SUPPORT EQUIP				0.9																		
ILS																						
OTHER SUPPORT				0.3																		
INTERIM CONTRACTOR SUPPORT																						
TOTAL PROCUREMENT			6	3.0																		

Totals may not add due to rounding

Exhibit P-3a

MODIFICATION TITLE: DIRECTED INFRARED COUNTERMEASURE (OSIP 005-08)

MODELS OF SYSTEMS AFFECTED: UH-1Y;MU-22;CH-53E;HLR;MH-60R;MH-60S;AH-1Z TYPE MODIFICATION: MISSION CAPABILITY

DESCRIPTION / JUSTIFICATION: CH-53E - Urgent Global War On Terrorism (GWOT) 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. This funding is for the B-kit procurement of a Directed Infrared Countermeasure (DIRCM) capability (FY2008-FY2012) until the next generation DIRCM is produced beginning FY2012 with Low Rate Initial Production (LRIP). This capability will increase surviability against current and next generation infrared threats.

The Assault DIRCM Program consists of a Missile Warning System (MWS) and an Infrared Jammer.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Assault DIRCM Program MS B is scheduled for 3rd quarter FY2008. A System Development and Demonstration (SDD) contract award is scheduled for the 3rd quarter of FY2008. MS C is scheduled for 3rd quarter of FY2011. A Full Rate Production Decision Review is scheduled for the 1st quarter of FY 2013 with Intitial Operating Capability (IOC) planned in FY2014.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
INSTALLATION KITS N/R																						
INSTALL EQUIPMENT																						
ASSAULT DIRCM (NEXT GEN)																						
DIRCM CH-53							7	20.3	7	20.3												
STRIKE DIRCM (NEXT GEN)																						
INSTALL EQUIPMENT N/R																						
ECO																						
ECO								*		*												
DATA								2.9		0.6												
TRAINING EQUIP								0.9		0.5												
SUPPORT EQUIP								0.5		0.2												
ILS								1.2		0.9												
OTHER SUPPORT								3.9		3.5												
INTERIM CONTRACTOR SUPPORT																						
TOTAL PROCUREMENT							7	29.7	7	26.0												

sk (*) indicates amount value less than $51

CLASSIFICATION: **UNCLASSIFIED**

Exhibit P-40, BUDGET ITEM JUSTIFICATION

DATE: **February 2007**

APPROPRIATION/BUDGET ACTIVITY	P-1 ITEM NOMENCLATURE
Aircraft Procurement, Navy/APN-5 Aircraft Modifications	**057700 Common Avionics Changes**
Program Element for Code B Items:	Other Related Program Elements

	Prior Years	ID Code	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	To Complete	Total
QTY		A										
COST (In Millions)	**1,197.6**	A	**175.1**	**176.8**	**148.8**	**150.7**	**145.8**	**140.4**	**143.8**	**147.3**	**486.6**	**2,912.9**

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), the individual aircraft platforms fund the "A" kits and installation in the appropriate aircraft line.

The specific modifications budgeted and programmed are: (1) The NAVSTAR GPS (Global Positioning System) is designed to provide a highly accurate passive position (16 meters) velocity (0.1 meter/sec) and time to users worldwide in all weather conditions. The GPS will interface with communication, navigation, and weapon systems equipment (standard attitude heading reference systems, inertial navigation systems, on-board computers, etc.) in selected applications. GPS is a DoD mandated requirement for all aircraft operating in the National Air Space System after the year 2000. (2) The AN/ARC-210 Electronic Protection (EP) Combination Radio provides dual UHF capability for CV based TACAIR; VHF AM for close air support and maritime channels; VHF AM for air traffic control; and EP capabilities. The AN/ARC-210 can be controlled by either a remote control unit or via MIL-STD-1553 multiplex data bus. (3) The Crash Survivable Flight Incident Recorder (CSFIR) is a crash hardened recorder which will be used in support of aircraft mishap and incident investigations. (4) The Ground Proximity Warning System (GPWS) provides visual and aural warnings to the pilot when the aircraft is in conditions that could result in a controlled flight into terrain accident. (5) The Traffic Alert & Collision Avoidance System (TCAS) will provide a display of situation awareness to aid in the prevention of mid-air mishaps. (6) The Advanced Mission Computer and Display (AMC&D) system will replace existing aging/obsolete and performance limited AN/AYK-14(V) Mission Computer and Contractor Furnished Equipment Displays. (7) 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. (8) 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. (9) Aircrew Wireless Internal Communications System (AWICS) will provide a wireless, spread spectrum intercom system to allow for unimpeded movement throughout the aircraft and prevent aircrew/passenger entanglement with intercom system cords in the event of mishap. (10) Attitude Gyro Upgrade replaces obsolete gyros with a more reliable and, maintainable gyro. (11) Military Flight Operations Quality Assurance (MFOQA) is a program that provides the warfighter with timely and quantitative information regarding aircrew and system performance for improving safety, operational efficiency, and readiness every flight. (12) 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. The overall goal of the modifications budgeted in FY 2008 is to procure the common equipment required for the individual aircraft platforms. The specific modifications budgeted and programmed are:

(TOA, $ in Millions)

OSIP No.	Description	Prior Years	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	Complete	To Total
71-88	NAVSTAR GPS (Hardware)	288.5	8.2	20.0	10.1	9.2	8.1	9.0	9.2	9.4	98.3	**470.0**
04-94	AN/ARC-210 (Hardware)	278.7	9.4	1.4	2.4	7.6	3.9					**303.4**
43-94	Crash Survivable Flight Incident Recorders (CSFIR)	83.9	1.2	0.4								**85.6**
14-97	GPWS (CAT I) Fixed Wing	78.9	14.5	8.5	8.6	6.4	3.6	2.2	2.2	2.3	10.1	**137.5**
25-98	Traffic Alert & Collision Avoidance System (TCAS)	57.6	2.9	0.3								**60.7**
21-01	CNS/ATM	86.5	58.1	59.9	47.7	57.6	63.9	95.4	106.7	111.4	326.2	**1,013.6**
02-02	Tactical Air Moving Map Capability (TAMMAC)	38.6	15.3	23.3	17.8	17.0	13.4	8.0				**133.4**
01-02	AMC&D/MPCD	98.8	48.8	43.4	45.3	43.1	44.6	16.4	10.3	8.9		**359.6**
07-04	Attitude Gyro Upgrade	17.4	10.5	11.6	12.2	1.8					1.2	**54.7**
09-04	Aircrew Wireless Internal Communications System (AWICS)		6.2	8.0	4.6	4.4	4.6	4.4	7.7	7.3	35.7	**82.8**
02-08	Military Flight Operations Quality Assurance (MFOQA)					1.6	1.6	3.0	4.7	4.1	14.8	**29.9**
012-08	Avionics Component Improvement Program (AVCIP)					2.0	2.0	2.0	2.9	3.8	0.4	**13.1**
Total		**1,029.0**	**175.1**	**176.8**	**148.8**	**150.7**	**145.8**	**140.4**	**143.8**	**147.3**	**486.6**	**2,744.3**

Exhibit P-3a Individual Modification

MODIFICATION TITLE: Global Positioning System (GPS) (OSIP 71-88)

MODELS OF SYSTEMS AFFECTED: All aircraft TYPE MODIFICATION: Common Avionics (Safety) (Added Capability)

DESCRIPTION/JUSTIFICATION: The NAVSTAR GPS is designed to provide highly accurate passive position (16 meters), velocity (0.1 meter/sec) and time to users worldwide in all weather conditions. GPS will be integrated with communication, navigation, and weapon systems equipment (attitude heading reference systems, inertial navigation systems, mission computers, etc.). This OSIP procures the GPS B-kit equipment (receivers, antennas, amplifiers, CDNU, DDS, SDC, etc.) as required for the above platforms. Hardware configuration varies depending on the TMS of the aircraft. Approximately 2500 aircraft will be modified with equipment provided through this OSIP. The Global Positioning System Operational Requirement Document (ORD) 003-78 dated 22 Jan 90 was based on an Air Force General Operating Requirement (GOR) dated 28 Jan 1978. The Navy ORD for Enhanced GPS User Equipment for Navigation Warfare and GPS Modernization was approved on 7 June 2000.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The NAVSTAR GPS program completed Phase II (Full Scale Engineering Development) and completed Milestone IIIA (Approval for Limited Production) in June 1986. Milestone IIIB (Approval for Full Production) was completed in January 1992. Research, Development, Test and Evaluation, Navy (RDT&E,N) is funded under program element #0604777N.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		FY2012		FY2013		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
NAVWAR	123	1.5	16	0.4	51	1.1	48	1.1	26	0.7												
Installation Kits N/R	1	0.0		3.2		11.3		1.0		0.6												
Installation Equipment																						
GPS	2,047	173.8																				
NAVWAR	123	4.5	16	1.6	51	4.8	48	4.4	26	4.1												
Installation Equipment N/R		18.7																				
Engineering Change Orders																						
NAVWAR Kit ECO		0.3																				
Data		7.8		0.1																		
Training Equipment																						
GPS	114	7.8																				
NAVWAR	1	0.1	1	0.1																		
Support Equipment		0.3																				
ILS		0.4		*		*		*		*												
Other Support		72.2		2.4		2.6		2.8		2.9												
Interim Contractor Support																						
Installation Cost	97	1.2	25	0.2	10	0.2	51	0.8	50	0.8												
Total Procurement		**288.5**		**8.2**		**20.0**		**10.1**		**9.2**												

Notes:

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

MODIFICATION TITLE: Global Positioning System (GPS) (OSIP 71-88)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Equipment is provided to the platform PMA and installed as per airframe ECP/AFC.

ADMINISTRATIVE LEADTIME: 3

PRODUCTION LEADTIME: 10

CONTRACT DATES: FY 2006: Dec-05 FY 2007: Dec-06 FY 2008: Dec-07 FY 2009: Dec-08

DELIVERY DATE: FY 2006: Oct-06 FY 2007: Oct-07 FY 2008: Oct-08 FY 2009: Oct-09

($ in Millions)

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY ( ) kits	97	1.2	25	0.2																		
FY 2006 ( ) kits					10	0.2	6	0.1														
FY 2007 ( ) kits							45	0.7	6	0.1												
FY 2008 ( ) kits									44	0.7												
FY 2009 ( ) kits																						
TOTAL	**97**	**1.2**	**25**	**0.2**	**10**	**0.2**	**51**	**0.8**	**50**	**0.8**												

**FY03 (1) HH-60 A-kit installation reflected in Installation Kit N/R line.

Installation Schedule

	FY 2005	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	97	6	6	6	7	3	3	2	2	12	12	13	14	12	13	12	13								
Out	97	6	6	6	7	3	3	2	2	12	12	13	14	12	13	12	13								

	FY 2012				FY 2013				To	Total
	1	2	3	4	1	2	3	4	Complete	
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: AN/ARC-210 Electronic Protection (EP) Combination Radio (OSIP 04-94)

MODELS OF SYSTEMS AFFECTED: AH-1W, AV-8B, C-2, CH-46E, C/MH-53D/E, EA-6B, KC-130F/R/T, F/A-18C/D E/F, UH-1N, HH-60 TYPE MODIFICATION: Common Avionics Modification

DESCRIPTION/JUSTIFICATION: The AN/ARC-210 is a combination UHF/VHF, AM/FM jam-resistant radio that was developed to allow for EP interoperability with the Air Force, Army and NATO. The radio provides dual UHF capability for CV based TACAIR; VHF AM for close air support and maritime channels; VHF AM for air traffic control; and EP capabilities using the Air Force developed waveforms (UHF-AM HAVEQUICK I and II), and the Army developed waveform (VHF-FM SINCGARS). The AN/ARC-210 can be controlled by either a remote control unit or via a MIL-STD-1553 multiplex data bus. The EP parameters and single channel preset information can be loaded via a CYZ-10 Data Transfer Device (DTD). The fill information can consist of word-of-the-day for HAVEQUICK; the KGV-10 transec variable, hopsets and frequency lock-out tables for SINCGARS. Engineering Change Proposal (ECP) 12 incorporated embedded Demand Assigned Multiple Access (DAMA) Satellite Communications (SATCOM), embedded COMSEC, embedded Variable Message Format (VMF), Link 4A, and is compatible with the memory loader verifier. ORD # 333-06-93 dated 4/20/93 validated this modification. FY08 and out funding is required for non-recurring engineering and test efforts to determine Communication Security (COMSEC) retrofit solution in response to National Security Agency (NSA) policies and mandates.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The AN/ARC-210 Common OSIP provides B-kits and common logistics requirements to multiple aircraft. Individual platform OSIPs include non-recurring engineering, integration, A-kit manufacturing and unique aircraft logistic requirements. Full rate Production Decision was approved in May 1994. Incorporation of these hardware mods will be accomplished via an ECP to the production receiver/transmitters configuration. Corresponding platform OSIP numbers; C-2A OSIP 24-94; AH-1W OSIP 3-93; AV-8B OSIP 23-93; CH-46E OSIP 9-92; EA-6B OSIP 42-93; F/A-18C/D OSIP 39-92 and 10-99; K/C-130F/R/T OSIP 2-92; UH-1N OSIP 15-92; CH/MH-53D/E OSIP 11-92.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		FY2012		FY2013		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
AN/ARC-210 Kit	80	4.5	40	0.2																		
Installation Kits N/R		7.3																				
Installation Equipment																						
AN/ARC-210 Equip	3,220	185.9	80	4.9																		
Installation Equipment N/R		5.9		0.1					20	4.0												
Engineering Change Orders		8.0						0.3		1.3												
Data		5.1		0.3				0.4		0.4												
Training Equipment	36	3.0		*																		
Support Equipment		9.8																				
ILS		13.3		0.5				0.6		0.6												
Other Support		35.3		1.6		0.4		1.1		1.3												
Interim Contractor Support																						
Installation Cost	7	0.6	20	1.7	12	1.0																
Total Procurement		**278.7**		**9.4**		**1.4**		**2.4**		**7.6**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. A-Kits for F/A-18C/D and KC-130 procured in FY 04-06. Installs are reflected in platform OSIP's.
4. A kits in FY04-06 are for KC-130, F/A-18C/D, HH-60

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: AH-1W, AV-8B, C-2, CH-46E, C/MH-53D/E, EA-6B, KC-130F/R/T, F/A-18C/D E/F, UH-1N, HH-60

MODIFICATION TITLE: AN/ARC-210 Electronic Protection (EP) Combination Radio (OSIP 04-94)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Prime Contractor

ADMINISTRATIVE LEADTIME: 5 Months

PRODUCTION LEADTIME: 11 Months

CONTRACT DATES: FY 2006: _____ FY 2007: _____ FY 2008: _____ FY 2009: _____

DELIVERY DATE: FY 2006: _____ FY 2007: _____ FY 2008: _____ FY 2009: _____

($ in Millions)

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY ( ) kits	7	0.6	20	1.7	12	1.0																
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
TOTAL	**7**	**0.6**	**20**	**1.7**	**12**	**1.0**																

*Note: KC-130 installation reflected in OSIP 02-92.
F/A-18 installations are reflected in OSIP 10-99.

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	7	3	5	6	6	5	4	3																	
Out	7	3	5	6	6	5	4	3																	

	FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4		
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: Crash Survivable Flight Incident Recorders (CSFIR) (OSIP 43-94)

MODELS OF SYSTEMS AFFECTED: AV-8B, F/A-18, VH-3D/60N, C/T-130, C-2, C-12, T-39, U/VP-3

TYPE MODIFICATION: Common Avionics Modification

DESCRIPTION/JUSTIFICATION: Chief of Naval Operations letter, Ser N8/5U640779 of 2 May 1995, directed the CSFIR implementation policy on Naval Aircraft. This modification will provide procurement and integrated logistics support of Navy common CSFIR and will include addressing obsolescence of commercial components. The CSFIR will be a crash hardened recorder of selective aircraft systems and position parameters to be used in support of aircraft mishap and incident investigations. RDC01-88-97 validate this modification.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Commercial off-the-shelf and non-developmental systems will be procured to the maximum extent feasible via open competition. Completed F/A-18 val/ver in 3rd quarter FY00. F/A-18 installations delayed due to war-time efforts; schedule extended out into FY07.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		FY2012		FY2013		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
CSFIR Kit	432	12.0																				
Installation Kits N/R	12	20.6																				
Installation Equipment																						
CSFIR Equip	449	9.9																				
Installation Equipment N/R		3.6																				
Engineering Change Orders																						
Data		1.2																				
Training Equipment	2	0.4																				
Support Equipment		3.2																				
ILS		3.3		0.1																		
Other Support		20.1		0.9		0.1																
Interim Contractor Support																						
Installation Cost	389	9.7	19	0.3	23	0.3																
Total Procurement		**83.9**		**1.2**		**0.4**																

Notes:

1. Totals may not add due to rounding

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: F/A-18, VH-3D/60N, C/T-130, C-2, C-12, T-39, U/VP-3

MODIFICATION TITLE: Crash Survivable Flight Incident Recorders (CSFIR) (OSIP 43-94)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor or USN Field Modification Team

ADMINISTRATIVE LEADTIME: 2 Months

PRODUCTION LEADTIME: 8 Months

CONTRACT DATES: FY 2006: _____ FY 2007: _____ FY 2008: _____ FY 2009: _____

DELIVERY DATE: FY 2006: _____ FY 2007: _____ FY 2008: _____ FY 2009: _____

($ in Millions)

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY ( ) kits	389	9.7	19	0.3	23	0.3																
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
TOTAL	**389**	**9.7**	**19**	**0.3**	**23**	**0.3**																

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	389	5	5	9		8	8	7																	
Out	389	5	5	9		8	8	7																	

	FY 2012				FY 2013				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: Ground Proximity Warning System (GPWS CAT I) Fixed Wing (OSIP 14-97)

MODELS OF SYSTEMS AFFECTED: KC-130T/F/R, VP-3, C-2A, S-3, UP-3, EA-6B, T-45 TYPE MODIFICATION: Common Avionics Modification

DESCRIPTION/JUSTIFICATION: The Ground Proximity Warning System (GPWS) is a low-cost, highly reliable stand-alone commercial set built to provide reliable integration of on-board sensor data and provides an aural warning for excessive descent rate, terrain closure rate, inadvertent descent below glideslope and descent below minimum. Commercial GPWS implementation has shown a demonstrated dramatic reduction in controlled flight into terrain incidents. ECP-130-108 increases system safety by eliminating known deficiencies and applies to military application during normal and low level mission requirements. ORD # 555-88-00 signed 1 May 00 validates this modification.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: GPWS CAT-I OPEVAL (P-3C) was successfully completed October 1993. USAF retrofitting all C-130 T/M/S with same unit as part of Autopilot Upgrade Program. USAF OPEVAL in C-130.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		FY2012		FY2013		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
GPWS CAT I Kit	195	3.1	30	0.6	24	0.3	24	0.3	27	0.3												
Installation Kits N/R	1	9.2																				
Installation Equipment																						
GPWS CAT I Equip	217	12.5	30	2.6	24	0.7	24	0.7	27	0.8												
Installation Equipment N/R	2	10.5		1.3				0.6														
Engineering Change Orders																						
Data		0.9						0.1														
Training Equipment	3	1.6				0.5		0.2														
Support Equipment																						
ILS		2.7		0.5		0.5		0.5		0.5												
Other Support		34.8		8.5		5.2		4.7		4.5												
Interim Contractor Support																						
Installation Cost	144	3.5	19	0.9	26	1.4	50	1.6	34	0.4												
Total Procurement		**78.9**		**14.5**		**8.5**		**8.6**		**6.4**												

Notes:

1. Totals may not add due to rounding
2. Installation qty differ from Install kits/equipment due to installation of OFT trainers listed in training material.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: KC-130T/F/R, VP-3, C-2A, S-3, UP-3, EA-6B, T-45

MODIFICATION TITLE: Ground Proximity Warning System (GPWS CAT I) Fixed Wing (OSIP 14-97)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor or USN Field Modification Team

ADMINISTRATIVE LEADTIME: 2 Months

PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2006: Dec-05 FY 2007: Dec-06 FY 2008: Dec-07 FY 2009: Dec-08

DELIVERY DATE: FY 2006: Dec-06 FY 2007: Dec-07 FY 2008: Dec-08 FY 2009: Dec-09

($ in Millions)

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY ( ) kits	144	3.5	19	0.9	26	1.4	6	0.2														
FY 2006 ( ) kits							30	0.9														
FY 2007 ( ) kits							14	0.5	10	0.1												
FY 2008 ( ) kits									24	0.3												
FY 2009 ( ) kits																						
TOTAL	**144**	**3.5**	**19**	**0.9**	**26**	**1.4**	**50**	**1.6**	**34**	**0.4**												

Installation Schedule

	FY 2005	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	144	4	5	5	5	6	6	7	7	12	12	13	13	9	9	8	8								
Out	144	4	5	5	5	6	6	7	7	12	12	13	13	9	9	8	8								

	FY 2012				FY 2013				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: Traffic Alert & Collision Avoidance System (TCAS) (OSIP 25-98)

MODELS OF SYSTEMS AFFECTED: C-2, C-130T, VP-3, KC-130, UP-3 | TYPE MODIFICATION: Common Avionics Modification

DESCRIPTION/JUSTIFICATION: CNO memorandum of 09 Nov 1999 directed TCAS implementation policy on Naval Aircraft. This modification will provide procurement and logistics support of a common TCAS. The TCAS will provide a display of situation awareness to aid in the prevention of midair mishaps. An ECP was approved in FY 99 to incorporate this change.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: TCAS Off-The-Shelf processor was selected. The ECP NRE effort for C-2, VP-3, and C-130T/KC-130 was accelerated and began in FY 98. Milestone III approved March FY01.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		FY2012		FY2013		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
TCAS Kit	114	7.4																				
Installation Kits N/R	1	7.3																				
Installation Equipment																						
TCAS Equip	115	13.2																				
Installation Equipment N/R		3.0		0.9																		
Engineering Change Orders		1.8																				
Data		1.8		0.2																		
Training Equipment	8	1.6																				
Support Equipment																						
ILS		2.4		0.2		0.1																
Other Support		13.9		0.8		0.2																
Interim Contractor Support																						
Installation Cost	104	5.0	11	0.8																		
Total Procurement		**57.6**		**2.9**		**0.3**																

Notes:

1. Totals may not add due to rounding

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: C-2, C-130T, VP-3, KC-130, UP-3

MODIFICATION TITLE: Traffic Alert & Collision Avoidance System (TCAS) (OSIP 25-98)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor or USN Field Modification Team

ADMINISTRATIVE LEADTIME: 2 Months

PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2006: _____ FY 2007: _____ FY 2008: _____ FY 2009: _____

DELIVERY DATE: FY 2006: _____ FY 2007: _____ FY 2008: _____ FY 2009: _____

($ in Millions)

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY ( ) kits	104	5.0	11	0.8																		
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
TOTAL	**104**	**5.0**	**11**	**0.8**																		

*KC130 Qty includes installation of (1) Maint. Trainer

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	104	3	3	3	2																				
Out	104	3	3	3	2																				

	FY 2012				FY 2013				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: Communication - Navigation - Surveillance / Air Traffic Management (CNS/ATM) Systems (OSIP 21-01)

MODELS OF SYSTEMS AFFECTED: P-3C, EP-3E, C-2A, EA-6B, KC130J, VH-3D, VH-60N, F/A-18E/F, F/A-18C/D, E-2C, MH-60S, MH-60R, F/A-18A+, H-1, CH-53E, AV-8B, TAV-8B, UP/VP-3A, NP-3C/D, MV-22B, MH-53E

TYPE MODIFICATION: Common Avionics Modification

DESCRIPTION/JUSTIFICATION: CNS/ATM provides new and enhanced Common Avionics equipment to comply with increasing ICAO (International Civil Aviation Organization) Standards and mandates. Areas impacted are worldwide, including transoceanic routes, as well as European and US National Air Space. Aircraft which are non-compliant with these standards and country mandates will be operationally delayed, circuitously rerouted, or denied access to controlled airspace. Some requirements are already in place (i.e. 8.33KHz VHF radio channels in Europe, Oct 99), while others are scheduled for implementation throughout the next several years (i.e.: Mode S, March 2009).

Prioritization of platform type and quantity is based on mission and anticipated operation in affected airspace. Enhanced functionality includes Mode S (Common Transponder and Aircraft Personality Module), 8.33KHz VHF channel spacing, RNP-4 integrity, Protected Instrument Landing System (P-ILS), Multi-Mode Receiver, and cockpit processing and display capability.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:
Began Mode S and RNP/RNAV integration into P-3 and C-2 in 2004. Achieve IOC by 07
Began Mode S and RNP/RNAV integration into E-2 in 2005 . Achieve IOC by 07
Began integration of 8.33 KHz VHF Radio into P-3C by 05 . Achieve IOC by 2007

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		FY2012		FY2013		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
CNS/ATM Kit	36	2.6	55	2.5	277	6.2	45	6.3	71	10.2												
Installation Kits N/R		1.0		1.3		0.8		0.1		0.6												
Installation Equipment																						
CNS/ATM Equip	15	6.3	109	8.7	295	15.9	54	10.3	80	15.1												
CNS/ATM P-ILS	713	2.7																				
Installation Equipment N/R		35.0		21.2		3.2		0.3		0.5												
Engineering Change Orders				0.4		1.4		0.3		0.2												
Data		0.5		0.3		1.0		0.1		0.1												
Training Equipment		0.2		2.7		4.1		4.0		8.5												
Support Equipment				0.0		0.4		0.4		0.3												
ILS		2.0		2.2		1.4		0.7		0.8												
Other Support		35.8		14.7		20.6		18.4		15.4												
Interim Contractor Support																						
Installation Cost	12	0.5	38	4.0	155	5.0	283	6.8	57	5.9												
Total Procurement		**86.5**		**58.1**		**59.9**		**47.7**		**57.6**												

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 procurred, installation quantity reflects number of aircraft.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: P-3C, EP-3E, C/KC-130, C-2A, EA-6B, KC130J, VH-3D, VH-60N, F/A-18E/F, F/A-18C/D E-2C, MH-60S, MH-60R, F/A-18A+, H-1, CH-53E, AV-8B, TAV-8B,UP/VP-3A, NP-3C/D, MV-22B, MH-53E

MODIFICATION TITLE: CNS/ATM (OSIP 21-01)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: USN Field Modification Team

ADMINISTRATIVE LEADTIME: 4 Months

PRODUCTION LEADTIME: 11 Months

CONTRACT DATES: FY 2006: Feb-06 FY 2007: Feb-07 FY 2008: Feb-08 FY 2009: Feb-09

DELIVERY DATE: FY 2006: Jan-07 FY 2007: Jan-08 FY 2008: Jan-09 FY 2009: Jan-10

($ in Millions)

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY ( ) kits	12	0.5	26	2.7																		
FY 2006 ( ) kits			12	1.3	67	2.1																
FY 2007 ( ) kits					88	2.9	272	6.5														
FY 2008 ( ) kits							11	0.3	41	4.2												
FY 2009 ( ) kits									16	1.7												
TOTAL	**12**	**0.5**	**38**	**4.0**	**155**	**5.0**	**283**	**6.8**	**57**	**5.9**												

**Notes: E-2C GNS-530 COTS item; no production lead time.
Difference in A-kits and Installations (395) are as follows: KC-130J (50) B-kits, MH-60R (25) B-kits, MH-60S (78) B-kits, F/A-18E/F (17) B-kits, F/A-18A+ (72) B-kits, F/A-18C/D (135) B-kits, MV-22B (18) B-kits
MH-53E (-2) installed by platform OSIP.

Installation Schedule

	FY 2005	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	12	9	9	10	10	38	39	39	39	70	71	71	71	14	14	14	15								
Out	12	9	9	10	10	38	39	39	39	70	71	71	71	14	14	14	15								

	FY 2012				FY 2013				To	Total
	1	2	3	4	1	2	3	4	Complete	
In										
Out										

Exhibit P-3a — Individual Modification

MODIFICATION TITLE: Tactical Aircraft Moving Map Capability (TAMMAC) (OSIP 02-02)

MODELS OF SYSTEMS AFFECTED: F/A-18C/D/E/F, AV-8B, AH-1W, UH-1Y — TYPE MODIFICATION: Common Avionics Modification

DESCRIPTION/JUSTIFICATION: TAMMAC provides the aircrew an easily assimilated graphical presentation of the aircraft's position and the relative positions of targets, threats, terrain features, planned mission flight path, no fly zones, safe bases and other objects. TAMMAC will present the aircraft's current situation on a map using new or existing cockpit displays. In addition to providing a basic moving map capability, the TAMMAC system will serve as a memory resource for the overall aircraft mission system and will incorporate an improved data transfer and recording capability. This memory resource includes a data loader function of sufficient memory capacity and speed to load/update all required map theater and mission specific databases as well as the ability to record mission and maintenance data. TAMMAC will also provide a Terrain Awareness Warning System (TAWS) capability. The principle benefits anticipated, increased mission effectiveness and survivability, arise from improved situation awareness, reduced crew workload and enhanced capability for precision navigation, targeting, terrain avoidance, and mission replanning. TAMMAC is comprised of two Weapon Replaceable Assemblies (WRA), the Advanced Memory Unit (AMU) and the Digital Map Computer (DMC). The Digital Video Map Computer (DVMC) , a DMC variant, will be utilized for Lot 26 and above F/A-18E/F aircraft . The TAMMAC system will replace the existing Navy AN/ASQ-196 Digital Map Set in the older aircraft, which is facing major parts obsolescence problems and is not capable of growing to support future requirements. TAMMAC will also replace the AN/ASQ-194 Data Storage Set which has insufficient memory and loading speed to load map theater databases. DVMCs are procured to replace F/A-18E/F DMCs installed in Lot 26 and 27. The DMC will be reused in the C/D retrofit program.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:
Milestone III approved April 01.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		FY2012		FY2013		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
TAMMAC Kit	160	0.2	99	1.2	93	0.8	108	1.1	74	1.5												
Installation Kits N/R																						
Installation Equipment																						
TAMMAC Equip	360	17.8	76	5.6	171	9.4	116	6.1	48	3.4												
Installation Equipment N/R		12.1		1.6		7.5		2.6		4.6												
Engineering Change Orders		0.1		0.8		0.4		0.5		0.5												
Data		0.2		0.7																		
Training Equipment		0.1				0.2																
Support Equipment	139	1.0	77	0.2	90	0.3	90	0.3	27	0.1												
ILS		0.6		0.5		0.5		0.6		0.6												
Other Support		6.4		4.3		2.4		3.4		3.1												
Interim Contractor Support																						
Installation Cost	3	*	43	0.5	97	1.9	161	3.2	114	3.3												
Total Procurement		**38.6**		**15.3**		**23.3**		**17.8**		**17.0**												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. Difference in A and B kits reflect procurements of AMU only and DVMC retrofits - no A kit required.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: F/A-18C/D/E/F, AV-8B, AH-1W, 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 2006: Jan-06 FY 2007: Jan-07 FY 2008: Jan-08 FY 2009: Jan-09

DELIVERY DATE: FY 2006: Jan-07 FY 2007: Jan-08 FY 2008: Jan-09 FY 2009: Jan-10

($ in Millions)

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY ( ) kits	3	*	43	0.5	97	1.9	29	0.5														
FY 2006 ( ) kits							99	2.0														
FY 2007 ( ) kits							33	0.7	60	1.7												
FY 2008 ( ) kits									54	1.6												
FY 2009 ( ) kits																						
TOTAL	**3**	*	**43**	**0.5**	**97**	**1.9**	**161**	**3.2**	**114**	**3.3**												

**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.
Installation Schedule

	FY 2005	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	3		14	14	15		32	32	33		51	53	57		38	38	38								
Out	3		14	14	15		32	32	33		51	53	57		38	38	38								

	FY 2012				FY 2013				To	
	1	2	3	4	1	2	3	4	Complete	Total
In										
Out										

Exhibit P-3a — Individual Modification

MODIFICATION TITLE: Advanced Mission Computer & Displays (AMC&D)/ Multipurpose Color Display (MPCD) (OSIP 01-02)

MODELS OF SYSTEMS AFFECTED: F/A-18C/D/E/F, AV-8B, T-45 — TYPE MODIFICATION: Common Avionics Modification

DESCRIPTION/JUSTIFICATION: Advanced Mission Computer and Displays (AMC&D) System is targeted to replace existing aging/obsolete and performance limited AN/AYK-14(V) Mission Computer (MC) and Contractor Furnished Equipment Displays. AMC&D system consists of an Advanced Mission Computer (AMC) which includes Mission Processing and Display Processing, Display Heads (DH), High-Speed Data Bus interfaces with Fiber Channel Network Switches (FCNS) and an 8x10 display. AMC&D system will have modular components integrated on an Open Systems Architecture so that it can be tailored and configured for each application, and can address new performance requirements and technologies with minimum cost. AMC&D will provide improved mission computers and displays to handle increased requirement for flight, mission, and imagery data. Due to obsolescence problems with the current Multipurpose Color Display (MPCD) display, the AMC&D program is leveraging the 5x5 DH to provide a form, fit, function and interface replacement (no install funding required). Analysis of parts obsolescence will be required to maintain current AMC&D configuration and to determine life of type procurements as required. MPCD production buys begin in FY02 (no installation required) and AMC&D LRIP production buys began in FY01 with FRP buys planned in FY04. The F/A-18E/F Retrofit Program (begins in FY06) goal is to achieve a 2-block configuration. Block 1 aircraft include Lots 23-25 and Block 2 includes Lots 26 and above. Block 1 will consist of replacing the AN/AYK-14 computers in Lots 23-24 and replacing the AMC with an newer configuration AMC in Lot 25. The computers are obtained as part of a reuse program from Block 2 portion of the upgrade and all Lots will require an A-kit. Lots 26 and 27 of Block 2 are provisioned to accept all WRAs for Block 2. The 06 procurement for Lots 26 consists of FCNS, displays and digital video mapping card. The 06 procurement for Lot 27 consists of displays, DVMC, and upgrade to a card in the AMC. To maintain the common block configuration, new AMCs are procured for both Lots in the out years. The AMCs removed from Lots 26 and 27 will be part of the reuse to the Block 1 configuration. The AMCs procured for Lot 28 and 29 do not require installation costs since they are a form fit function replacement for as-delivered AMCs. The systems removed from Lots 28 and 29 will be part of the reuse process. AMC&D MNS - M061-88-94 of 2 December 1994. AMC&D ORD Ser. No. 549-88-00 Approved 21 March 2000. The FY08, 09 and 10 procurements include B-kits to provide digital output for the 8x10 AMPD (HRRI) to address a COMOPTEVFOR finding of poor ready room playback quality of the current analog video

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.
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 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		FY2012		FY2013		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
AMC&D Kit					32	0.7	11	0.2	17	1.2												
Installation Kits N/R																						
Installation Equipment																						
AMC&D / MPCD Equip	398	47.2	109	38.2	89	32.3	108	36.4	83	32.6												
Installation Equipment N/R		30.8		4.5		5.0		3.1		4.1												
Engineering Change Orders				0.4		0.3		0.3		0.3												
Data		1.0		0.1																		
Training Equipment		2.0																				
Support Equipment		0.7		0.5		1.7		0.9		0.9												
ILS		5.0		2.6		1.7		2.0		1.9												
Other Support		12.1		2.5		1.7		1.3		1.3												
Interim Contractor Support																						
Installation Cost							70	1.2	41	0.7												
Total Procurement		**98.8**		**48.8**		**43.4**		**45.3**		**43.1**												

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: 5 Months

PRODUCTION LEADTIME: 19 Months

CONTRACT DATES: FY 2006: FY 2007: Jan-07 FY 2008: Jan-08 FY 2009: Jan-09

DELIVERY DATE: FY 2006: FY 2007: Aug-08 FY 2008: Aug-09 FY 2009: Aug-10

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits							32	0.5														
FY 2008 ( ) kits							23	0.4														
FY 2009 ( ) kits							15	0.3	34	0.6												
									7	0.1												
TOTAL							**70**	**1.2**	**41**	**0.7**												

Note: Lots 26 (64) B-kiths with associated installation cost included in schedule, no A-kit required.

Installation Schedule

	FY 2005	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In											23	23	24		13	14	14								
Out											23	23	24		13	14	14								

	FY 2012				FY 2013				To	Total
	1	2	3	4	1	2	3	4	Complete	
In										
Out										

* A-Kits, B-Kits and Installs do not align. A or B-Kits which require installation are shown.
** F/A-18's longest lead time component is 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 HRRI kit), B-Kit (AMC, FCNS, 8x10)
Lot 28	A-Kit (8x10 HRRI kit), B-Kit (AMC)
Lot 29	A-Kit (8x10 HRRI kit), B-Kit (AMC)
Lot 30	A-Kit (8x10 HRRI kit)

Note 3: Lots 27-29 AMC retrofits are O-Level mods with no install cost.
Note 4: Due to variation in lead times, B-kits are procurred 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.

Exhibit P-3a — Individual Modification

MODIFICATION TITLE: Attitude Gyro Upgrade (OSIP 07-04)

MODELS OF SYSTEMS AFFECTED: CH-53E/D, MH-53E, CH-60S, EP-3E, HH-60H/J, P-3C, H-46, SH-60B/F/H, and MH-60R

TYPE MODIFICATION: Common Avionics Modification

DESCRIPTION/JUSTIFICATION: There are eleven (11) current attitude gyro systems in the CH-53E/D, MH-53E, CH-60S, EP-3E, HH-60H/J , P-3C, H-46, SH-60B/F/H, and MH-60R aircraft that are significant fleet operational and support cost drivers in the flight hour program. Two state-of-the-art Commercial-off-the-Shelf (COTS) products are available to improve readiness and reduce fleet operational and support costs in the flight hour program. The solution to the problem is to replace these obsolete gyros with a more reliable and maintainable gyro at the very lowest cost. In order to minimize time and cost for fleet introduction, replacement units shall be COTS in nature and be a form, fit, functional replacement.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Initial procurement awards were Displacement Gyro's - May 2004 and Rate Gyro's - January 2005. COTS/NDI replacement system.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		FY2012		FY2013		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
Attitude Gyro Upgrade Kit																						
Installation Kits N/R																						
Installation Equipment																						
Attitude Upgrade Equip	2,092	9.7	916	4.3	984	8.2	832	9.4														
Installation Equipment N/R		3.8		2.2		0.4																
Engineering Change Orders																						
Data		0.6		0.6		0.1																
Training Equipment																						
Support Equipment																						
ILS		0.2		0.3		0.2		0.2		0.2												
Other Support		3.1		3.2		2.6		2.7		1.6												
Interim Contractor Support																						
Installation Cost																						
Total Procurement		**17.4**		**10.5**		**11.6**		**12.2**		**1.8**												

Notes:

1. Totals may not add due to rounding
2. H-53 OSIP # 08-06 reflects (7) Displacement Gyros in FY07.

Exhibit P-3a — Individual Modification

MODIFICATION TITLE: Aircrew Wireless Internal Communications System (AWICS) (OSIP 09-04)

MODELS OF SYSTEMS AFFECTED: MH-53E, CH-46E, CH-53D/E, MH-60S/R, KC-130R/T, C-130T, KC-130J, MV-22B, C-2A, P-3 (all TMS), and UH-1

TYPE MODIFICATION: Common Avionics Modification

DESCRIPTION/JUSTIFICATION:
A wireless intercom system that will allow for unimpeded movement throughout the aircraft. This safety improvement will prevent aircrew/passenger entanglement with ICS (intercom system) cords in the event of a mishap. Unencrypted system will begin procurements in FY06, with encrypted system beginning procurements in FY08.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:
Installation Decision (Unencrypted) 3rd Quarter 2006
Secure Transmission (encrypted) ECP 1st Quarter 2008

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		FY2012		FY2013		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
AWICS Kit			152	0.1	244	0.1	59	*	49	*												
Installation Kits N/R										0.1												
Installation Equipment																						
AWICS Equip			152	2.0	244	3.2	59	2.0	49	1.6												
Installation Equipment N/R				0.5		0.4		0.4		0.5												
Engineering Change Orders																						
Data				0.2		0.1		0.1		0.1												
Training Equipment				*		*		*		*												
Support Equipment																						
ILS				0.9		0.6		0.5		0.5												
Other Support				0.9		1.1		1.0		1.0												
Interim Contractor Support																						
Installation Cost			152	1.5	244	2.4	59	0.6	49	0.5												
Total Procurement				**6.2**		**8.0**		**4.6**		**4.4**												

Notes:
1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. Differences in A Kit and B Kit quantities results from 406 FY08 and out encrypted type 1 appliques that have previously provisioned A kits.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: MH-53E, CH-46E, CH-53D/E, MH-60S/R, KC-130R/T, C-130T, KC-130J, MV-22B, C-2A, P-3 (all TMS), and UH-1

MODIFICATION TITLE: Aircrew Wireless Internal Communications System (AWICS) (OSIP 09-04)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor or USN Field Modification Team

ADMINISTRATIVE LEADTIME: 5 Months

PRODUCTION LEADTIME: 3 Months

CONTRACT DATES: FY 2006: Mar-06 FY 2007: Nov-06 FY 2008: Nov-07 FY 2009: Nov-08

DELIVERY DATE: FY 2006: Jun-06 FY 2007: Feb-07 FY 2008: Feb-08 FY 2009: Feb-09

($ in Millions)

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY ( ) kits																						
FY 2006 ( ) kits			152	1.5																		
FY 2007 ( ) kits					244	2.4																
FY 2008 ( ) kits							59	0.6														
FY 2009 ( ) kits									49	0.5												
TOTAL			**152**	**1.5**	**244**	**2.4**	**59**	**0.6**	**49**	**0.5**												

**Note: FY08 retrofits unencrypted maintenance trainers to type 1 applique (encrypted) maintenance trainers. The following maintenance trainers apply: MH-53E (1), CH-46E (2), and CH-53D (1).

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In				76	76		81	81	82		19	20	20		16	16	17								
Out				76	76		81	81	82		19	20	20		16	16	17								

	FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4		
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: Military Flight Operations Quality Assurance (MFOQA) (OSIP 02-08)

MODELS OF SYSTEMS AFFECTED: F/A-18C/D/E/F, MH-60R/S, T-45C, CH-53E, MV22 | TYPE MODIFICATION: Common Avionics Modification

DESCRIPTION/JUSTIFICATION: MFOQA improves safety, readiness and asset conservation by assessment of aircrew and aircraft performance; improving training, operations, maintenance, and safety across all Naval Aviation platforms. Efforts will include procuring hardware, as required, to capture aircraft parametric data and data downloading capability to allow the processing & analysis required by MFOQA. Efforts will also include hardware & software upgrades to the various Squadrons' ground/work stations to enable MFOQA implementation. MFOQA Program directed by OSD mandate October 2005 and SECNAV February 06.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:
Analysis of Alternatives (AoA) approved Sep 05; Capability Development Document (CDD) approved Jan 06
Milestone B 1st Qtr FY07, Milestone C 3rd Qtr FY09, IOC 1st Quarter FY10

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		FY2012		FY2013		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
MFOQA Kit																						
Installation Kits N/R																						
Installation Equipment																						
MFOQA Equip																						
Installation Equipment N/R																						
Engineering Change Orders										0.1												
Data																						
Training Equipment										0.3												
Support Equipment										0.7												
ILS										0.1												
Other Support										0.5												
Interim Contractor Support																						
Installation Cost																						
Total Procurement										**1.6**												

Notes:
1. Totals may not add due to rounding
2. Asterisk indicates amount less than $50K
3. Differences in A Kit and B Kit quantities results from Quick Access Recorder procurements in FY13 and out.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: F/A-18C/D/E/F, MH-60R/S, T-45C, CH-53E, MV22

MODIFICATION TITLE: Military Flight Operations Quality Assurance (MFOQA) (OSIP 02-08)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor or USN Field Modification Team

ADMINISTRATIVE LEADTIME: 2 Months

PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2006: _____ FY 2007: _____ FY 2008: _____ FY 2009: _____

DELIVERY DATE: FY 2006: _____ FY 2007: _____ FY 2008: _____ FY 2009: _____

($ in Millions)

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2005 & PY ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
TOTAL																						

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In																									
Out																									

	FY 2012				FY 2013				To	Total
	1	2	3	4	1	2	3	4	Complete	
In										
Out										

Exhibit P-3a | Individual Modification

MODIFICATION TITLE: Avionics Component Improvement Program (AVCIP) (OSIP 012-08)

MODELS OF SYSTEMS AFFECTED: All Aircraft | TYPE MODIFICATION: Common Avionics Modification

DESCRIPTION/JUSTIFICATION: AvCIP provides resources to address critical readiness and reliability deficiencies, obsolescence, loss of sustainability and top Fleet repair cost drivers in Naval avionics systems. In the year prior to execution, candidate projects from all TMS are collected, reviewed, competed and selected based upon proposal solution maturity and executability, mission criticality and urgency, degree of readiness impact or Fleet maintenance or repair cost burden, return on investment, and Fleet advocacy. AvCIP is considered a better business practice to address cost-wise readiness in support of NAE efficiency objectives. AvCIP is funded by both RDT&E,N and APN accounts to cover non-recurring engineering for design/development or re-design/modification, integration testing, prototype/lab asset development, qualification testing and engineering and logistics documentation and support services. APN funds will cover NRE to insert modern technology to address poor performance or obsolescence, and support initial procurements. Follow-on procurement tails are coordinated with Program Offices and their OSIPs.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: AvCIP project selection criteria include proposed solution maturity and executability. Target project length to start of fielding of the solution is 12-18 months. Each procurement below is representative of initial project lab asset purchases for qualification and productionization validation. Units may be transferred to Fleet platforms as operational assets. Future year specific development profiles/milestones will be dependent upon projects competed and selected. Multiple projects may be selected each year.

FINANCIAL PLAN: (TOA, $ in Millions)

	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY2010		FY2011		FY2012		FY2013		To Complete		Total	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																						
PROCUREMENT																						
Installation Kits																						
AVCIP Kit																						
Installation Kits N/R																						
Installation Equipment																						
AVCIP Equip									4	0.4												
Installation Equipment N/R										1.0												
Engineering Change Orders																						
Data																						
Training Equipment																						
Support Equipment																						
ILS										0.2												
Other Support										0.5												
Interim Contractor Support																						
Installation Cost																						
Total Procurement										**2.0**												

Notes:

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

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: All Aircraft

MODIFICATION TITLE: Avionics Component Improvement Program (AVCIP) (OSIP 012-08)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Component is provided to the platform PMA and installed as per airframe ECP/AFC.

ADMINISTRATIVE LEADTIME: 2 Months

PRODUCTION LEADTIME: 4 Months

CONTRACT DATES: FY 2006: _____ FY 2007: _____ FY 2008: _____ FY 2009: Nov-08

DELIVERY DATE: FY 2006: _____ FY 2007: _____ FY 2008: _____ FY 2009: Feb-09

($ in Millions)

Cost:	Prior Years		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		To Complete		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	**$**
FY 2005 & PY ( ) kits																						
FY 2006 ( ) kits																						
FY 2007 ( ) kits																						
FY 2008 ( ) kits																						
FY 2009 ( ) kits																						
TOTAL																						

Installation Schedule

	FY 2005 & Prior	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In																									
Out																									

	FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4		
In										
Out										

BUDGET ITEM JUSTIFICATION SHEET

P-40

DATE: February 2007

APPROPRIATION/BUDGET ACTIVITY
Aircraft Procurement, Navy / APN5 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	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
QUANTITY												
COST (In Millions)	7.7	B	13.6	10.9	6.5	10.9	0.0	0.0	0.0	0.0	0.0	49.4

DESCRIPTION:

This line funds Gun Systems for Marine Corps assault support aircraft. OSIP 003-06 funds the Common Defensive Weapon System (CDWS). The CDWS is a .50 Caliber Medium Pintle Head (MPH) mounted weapon system which is being procured to replace the GAU-16 and the XM-218 .50 caliber machine guns. The CDWS provides a significant increase in firepower, accuracy, lethality, and reliability, and will maximize survivability through suppressive fire capabilities for Marine Corps assault support aircraft. Procurement of the system began in FY03. 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. FY07 Funding: Continue outfitting the CH-46 and begin outfitting of UH-1. FY08/09 Funding: Complete outfitting of the CH-46 and UH-1. OSIP 017-07 funds the M240D Medium Caliber machine gun for outfitting on the CH46E to provide suppressive and defensive fire in the rear sector of the aircraft. All units will be procured in FY07 using FY07 Title IX supplemental funds.

OSIP No. / DESCRIPTION	PRIOR YEARS	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
003-06 COMMON DEFENSE WEAPON SYSTEM	7.7	13.6	10.1	6.5	10.9	0.0	0.0	0.0	0.0	0.0	48.7
017-07 CREW-SERVED WEAPONS			0.8								
TOTAL	7.7	13.6	10.9	6.5	10.9	0.0	0.0	0.0	0.0	0.0	49.4

*$750K received in FY 2007 Title IX.

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

Totals may not add due to rounding
DD Form 2454, Jun 86

Exhibit P-3a

MODIFICATION TITLE: COMMON DEFENSE WEAPON SYSTEM(OSIP 003-06)

MODELS OF SYSTEMS AFFECTED: CH-53D/E, CH-46, UH-1, V-22 TYPE MODIFICATION: MISSION/MISSION ENHANCEMENT

DESCRIPTION/JUSTIFICATION:

The Common Defensive Weapon System (CDWS) is a .50 Caliber Medium Pintle Head (MPH) mounted weapon system which will provide enhanced defensive and suppressive fire 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, UH-1, and V-22). The MPH and aircraft integration kit's base designs are also COTS though kit modifications for each T/M/S aircraft must still be finalized. CDWS is also being integrated on USN platform MH-60R/S and USMC V-22 through their own budget lines, thus enhancing the common configurations between USN and USMC. All non-recurring engineering efforts were completed during FY03 under BLI 052800, H-53 Series, OSIP 18-03. Total does not include FY04 Operation Iraqi Freedom (OIF) supplemental received under H-53 Series, OSIP 18-03 which procured the Ramp Mounted Weapons System. Milestone C review for GAU-21 .50 Caliber Machine Gun is scheduled for August 2006.

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
CH-46					75	3.0	33	1.3	69	2.8												
CH-53E/D A KITS	111	3.7	245	8.1	75	3.0																
UH-1							33	1.3	69	2.8												
INSTALLATION KITS N/R																						
INSTALL EQUIPMENT																						
CH-46					75	1.6	33	0.7	69	1.4												
CH-53E/D	111	1.9	245	4.1	75	1.6																
UH-1							33	0.7	69	1.4												
INSTALL EQUIPMENT N/R																						
ECO																						
DATA		*		0.4																		
TRAINING EQUIP		*																				
SUPPORT EQUIP		1.7																				
ILS				0.6		0.7		2.1		2.0												
OTHER SUPPORT		0.3		0.3		0.3		0.4		0.4												
INTERIM CONTRACTOR SUPPORT																						
TOTAL PROCUREMENT	222	7.7	490	13.6	300	10.1	132	6.5	276	10.9												

Notes:
1. Asterisk indicates amount less than $51k
2. Congressional Adds in FY03 and FY04 on H-53 line procured 80 and 110 GAU-21s respectively.
3. Increase in FY08 and FY09 ILS includes depot start-up costs.
4. GAU-21 .50 Caliber Machine Guns will be transitioned from the CH-46 to the V-22 as the CH-46 is retired from the inventory.

Exhibit P-3a

MODIFICATION TITLE: CREW-SERVED WEAPONS (OSIP 017-07)

MODELS OF SYSTEMS AFFECTED: CH-46E TYPE MODIFICATION: MISSION/MISSION ENHANCEMENT

DESCRIPTION/JUSTIFICATION:

The M240D is a single barrel 7.62mm Machine Gun is a gas operated, belt fed, air cooled machine gun with a maximum rate of fire of 950 shots per minute (SPM). The M240D will serve as a rear-defensive weapon system for the CH-46E aircraft. CH-46E squadrons deployed to GWOT operations are vulnerable from the rear hemisphere due to the limited fields of fire provided by the door guns. The M240D Machine gun on the ramp of the CH-46E can be employed to suppress small arms fire while inbound and provide defensive fire in the aircraft's 6-o'clock sector. This reduces vulnerability from small arms ground fires during take-off, landing, en-route, egress and can be crucial during hover operations, such as rescue hoisting and Special Patrol Insertion and Extraction (SPIE) operations. The M240D allows for a common medium machine gun throughout the Marine Corps. FN Manufacturing is the sole source manufacturer of the M240D Machine Gun.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

The M240-D Machine Gun is a Commercial Off-the-Shelf (COTS) item ready for deployment on the CH-46E Marine Corps assault support aircraft . The M240D is currently supported by the Navy/Marine Corps supply system and can be procured and delivered to theatre within sis months of receiving funding.

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS																						
CH-46					119	0.1																
CH-53E/D A KITS																						
UH-1																						
INSTALLATION KITS N/R																						
INSTALL EQUIPMENT																						
CH-46					100	0.5																
CH-53E/D																						
UH-1																						
INSTALL EQUIPMENT N/R																						
ECO																						
DATA																						
TRAINING EQUIP																						
SUPPORT EQUIP																						
ILS						0.1																
OTHER SUPPORT						*																
INTERIM CONTRACTOR SUPPORT																						
TOTAL PROCUREMENT						.8																

Notes:
1. Astrisk indicates amount is less than $51K

Totals may not add due to rounding

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2007	
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy / APN-5 Aircraft Modifications BA5**							P-1 ITEM NOMENCLATURE **058200, ID SYSTEMS**					
Program Element for Code B Items:							Other Related Program Elements					
	PRIOR YEARS	ID Code	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
QUANTITY												
COST (In Millions)	1.6	B	8.2	11.1	10.3	12.1	24.3	20.5	31.6	26.1	58.5	204.3

DESCRIPTION/JUSTIFICATION:

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 the APX-118/123, UPX-37/41C, APX-111, RT-1832/1918, APX-119, and XS-950SI. 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.

OSIP No. / DESCRIPTION	PRIOR YEARS	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
015-03 MARK XIIA MODE 5 IFF	1.6	8.2	11.1	10.3	12.1	24.3	20.5	31.6	26.1	58.5	204.3
TOTAL	1.6	8.2	11.1	10.3	12.1	24.3	20.5	31.6	26.1	58.5	204.3

Exhibit P-3a

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 is a product improvement which is designed to be installed through engineering changes to digital MK XII interrogators and transponders including the APX-118/123, UPX-37/41C, APX-111, RT-1832/1918, APX-119, and XS-950SI. 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. Mode 5 was designated a "JROC special interest" program in March 2001 and is interoperable across all services. (ORD # 577-06-01). Mode 5 upgrades existing Mode 4 IFF equipment, including cryptography, support equipment, and associated hardware and software changes.

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 May 2003. Operational Assessment (OA) completed 2nd quarter FY 2006 with Operational Evaluation (OE) scheduled for 1st quarter FY 2008. Due to the need for additional developmental efforts resulting from requirements definitization, numerous test events have been rescheduled and Milestone C delayed from September 2005 to July 2006. Milestone C and Low Rate Initial procurement (LRIP) was approved in July 2006 including a revised Acquisition Program Baseline Agreement.

FINANCIAL PLAN: (TOA, $ in Millions)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E		37.8		9.3		13.7		11.8		9.7												
PROCUREMENT																						
INSTALLATION KITS																						
MODE 5 IFF A-KIT									7	0.1												
INSTALLATION KITS																						
MODE 5 IFF B-KIT			5	0.1	85	2.6	20	0.3	24	1.2												
INSTALL EQUIPMENT N/R		1.5		4.1		1.7		2.5		5.4												
ECO						0.2		*		0.2												
DATA				0.1		0.1		0.1		*												
TRAINING EQUIP		*				0.1		0.4		0.1												
SUPPORT EQUIP				0.8		3.7		4.1		1.6												
ILS				0.2		0.5		0.4		0.4												
OTHER SUPPORT				3.0		2.2		2.4		3.2												
INTERIM CONTRACTOR SUPPORT																						
INSTALLATION COST					5	*	85	0.1	20	*												
TOTAL PROCUREMENT		1.6		8.2		11.1		10.3		12.1												

NOTES:
1. Mode 5 IFF "A" Kits will be required for installation on the F/A-18C/D platform along with the "B" kits. The other platforms will only require "B" kits.
2. Asterisk (*) indicates amount value less than $50K
3. Totals may not add due to rounding

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: VARIOUS (49 SEPARATE T/M/S) MODIFICATION TITLE: MARK XIIA MODE 5 IFF(OSIP 015-03)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: FIELD INSTALL KITS AND VENDOR DEPOT ECP INSTALLATION

ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2006 May 06 FY 2007 Nov 06 FY 2008 Nov 07 FY 2009 Nov 08

DELIVERY DATE: FY 2006 May 07 FY 2007 Nov 07 FY 2008 Nov 08 FY 2009 Nov 09

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		TO COMPLETE		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PRIOR YEARS () kits																						
FY 2006 (5) kits					5	*																
FY 2007 (85) kits							85	0.1														
FY 2008 (20) kits									20	*												
FY 2009 (31) kits																						
Total					5	*	85	0.1	20	0.0												

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In		0	0	0	0	0	3	2	0	21	21	21	22	5	5	5	5				
Out		0	0	0	0	0	3	2	0	21	21	21	22	5	5	5	5				

	FY 2011				FY 2012				FY 2013				To Complete	Total
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

NOTES:
1. Asterisk (*) indicates amount value less than $50K
2. Totals may not add due to rounding

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2007	
APPROPRIATION/BUDGET ACTIVITY **Aircraft Procurement, Navy / APN5 Aircraft Modifications**							P-1 ITEM NOMENCLATURE **059000, V-22 SERIES**					
Program Element for Code B Items:							Other Related Program Elements					
	PRIOR YEARS	ID Code	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
QUANTITY												
COST (In Millions)	64.0	B	82.2	140.0	68.4	41.8	25.8	26.3	26.8	27.3	1198.4	1700.8

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

The FY 2008 budget request reflects the funding level necessary to correct currently known deficiencies and allow the program to move forward. The FY 2008 modifications program procures retrofit kits necessary to correct discrepancies identified during initial flight testing as well as those resulting from any redesign efforts.

The current procurement objective is 458: 360 MV-22 Marine Corps aircraft, 48 HV-22 Navy aircraft, and 50 CV-22 aircraft for USSOCOM.

Type Modifications: Safety, Reliability, Increased Service Life, Improved Mission Capabilities

OSIP No. / DESCRIPTION	PRIOR YEARS	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	TO COMPLETE	TOTAL
022-01 MV-22 CORRECTION OF DEFIENCIES AND PRE	64.0	82.2	140.0	68.4	41.8	25.8	26.3	26.8	27.3	1198.4	1700.8
TOTAL	64.0	82.2	140.0	68.4	41.8	25.8	26.3	26.8	27.3	1198.4	1700.8

(1) FY07 includes $54.6M of Title IX funding

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

Totals may not add due to rounding
DD Form 2454, Jun 86

Exhibit P-3a

MODIFICATION TITLE: MV-22 CORRECTION OF DEFIENCIES AND PRE BLOCK A THROUGH C(OSIP 022-01)

MODELS OF SYSTEMS AFFECTED: V-22 Series TYPE MODIFICATION: Safety, Reliability, Increased Service Life, Improved Mission Capabilities

DESCRIPTION / JUSTIFICATION:

Future ECPs:
PRE BLOCK A, BLOCK A, BLOCK B, and BLOCK C: Major configuration changes are associated with the aircraft Propulsion/Drive, Electrical, Avionics, Hydraulics, Structure/Airframe, Fuel, Software, and Environmental Control System (ECS).
Specifically included are Nacelle changes, Avionics, Blade Fold Harness, Fuel Probe, Active Vibration Suppression System, Constant Frequency Generator and Variable Frequency Generator. Additional configuration changes include Effectiveness and Suitability and Enhanced Capability. ECPs for (R&M changes, Ice Protection and Clam Shell Doors) are configuration items associated with production Block A, Block B, and Block C changes. Aircraft Retrofits are implemented to coincide with resources and aircraft availability , stand-alone retrofit ECPs are generated. These Retrofit ECPs are the implemention of the approved production Block Configuration changes.

ECP-344:
REGULATED CONVERTER: Incorporates fixes to alleviate concerns associated with spec compliance and eliminate nuisance failures for fleet aircraft.
SHAFT DRIVEN COMPRESSOR SCREEN: Incorporates a new shaft drive compressor screen with one piece inner and outer frames to reduce the number of parts and larger holes to increase air flow.
RAMP ACTUATOR: Incorporates fixes for reliability and life limit deficiencies. There are two ramp actuators per aircraft.
CARGO RESTRAINT SYSTEM: Changes the cargo restraint factors from a dynamic to a static tie down system to improve Fleet suitability.
FUEL ISOLATION TUBES: Incorporates the productionized final design for resistive tubes on hoses for lightning strike protection.
AVIONICS: Avionics modifications to the V-22 will improve display reliability, eliminate communication security issues and alleviate parts obsolescence/vendor problems. Changes to the V-22 avionics will include: Display System upgrade, Cockpit Inter Communication System modification, upgraded Mission Computer, updated Data Transfer Module, Control Display Unit/Engine Instrument Caution Advisory System upgrade, Control Display Unit Keyboard upgrad, and Avionics Interface Units upgrades.
POWER TRANSMISSION AND CONTROL: Changes to the V-22 Power Transmission and Control System will improve reliability and maintainability. Changes to the V-22 Power Transmission and Control System will include: swashplate reliability upgrades, engine gimbal ring/spherical bearing installation revision, updated refuel/defuel valve, bull gear shroud and engine gimbal ring.
COCKPIT: Changes to the V-22 cockpit will improve crew safety, mission suitability and overall reliability. Changes to the V-22 cockpit include: night vision goggle compatible hardware, upgraded inertial reels, upgraded pilot and co-pilot restraint system, throttle control lever soft stop modification, and improved rain removal.
STRUCTURAL: Structural changes to the V-22 will increase survivability, improve maintainability and aircraft availability, eliminate component interferences, improve suitability and correct safety related issues. Structural changes include: forward sponson fuel bladder access redesign/install powder panels, environmental control unit Ram air barrier filter, avionics left hand mounting tray, aft upper door strut, add manual drive decal, fold blades in high winds and modified trunnion fitting.
PRODUCTION ROTOR LIGHTING PROTECTION: Improves rotor system lighting protection by adding improved bonding harness and grounding strap bracket.
BRACKET HYDRAULIC LINE CLAMPING: Relocate clamping provisions from the removable conversion actuator fairing to the frame and improve the tube installation.
SWASHPLATE DRAG TUBE: Redesign Swashplate Drag Tube to increase part life.
WASHER: Washer to now be included with attach hardware to ensure adequate tying of the assembly.
RELIABILITY & MAINTAINABILITY FIXES: Includes Corrective Action Plans to make the aircraft compliant with Operation Requirements Document requirements.

ECP-400:
AIRCRAFT MAINTENANCE TRAINER: Improves training and pilot proficiency by incorporating modifications to the AMT #1 to reflect most current aircraft configuration as directed by Blue Ribbon Panel.

ECP-397:
FULL FIDELITY SIMULATOR (FFS) UPGRADES: Improves training and pilot proficiency by incorporating modifications to the FFS #1 & #2 to reflect most current aircraft configuration as directed by Blue Ribbon Panel.
FLIGHT TRAINING DEVICE (FTD) UPGRADES: Improves training and pilot proficiency by incorporating modifications to the FTD #1 to reflect most current aircraft configuration as directed by Blue Ribbon Panel.

ECP-427R1:
MECHANICAL PART TASK TRAINER: Improves maintainer and aircrew proficiency by incorporating Block 'A' configuration changes.

ECP-451:
INTERACTIVE MULTIMEDIA INSTRUCTION: Improves maintainer and aircrew proficiency by incorporating Block 'A' configuration changes.

ECP-511:
AIRFRAME PART TASK TRAINER , Incorporate Block 'B' configuration changes.

ECP-###: Block B safety configuration changes required to meet mission requirements. Changes are associated with the aircraft Propulsion/Drive, Electrical, Avionics, Hydraulics, and Structure/Airframe.

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.

ECP-722: Shaft Driven Compressor Inlet Barrier Filter,

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.

ECP-###: Refuel/Defuel Valve, redesign of the refuel/defuel valve.

ECP-###: Gussets to Fairings, Install gussets to upper and lower flanges of fairings assembly.

ECP-###: Ramp Tunnel Redesign, redesign of the ramp tunnel.

ECP-656: 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.

ECP-669: MLG Door Hinge Redesign, new-thicker machined hinge replacement designed to meet current loading requirements.

ECP-505: ECU Water Spray Redesign, redesigned the water spray inlet assembly (U-tube) and the heat exchangercrossover 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-552R1: 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 diaphram 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-####: Cabin Upper Crew Door, Provides redesign to the cabin upper crew door and the proper use of the new door.

ECP-627: Engine Air Particle Seperator (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-###: 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-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-###: Air Cycle Machine Filtration, Modifies the bearing cooling flow path and adds a barrier filter.

ECP-###: 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.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

The MV-22 aircraft are currently in Low Rate Production. First acceptance and incorporation has been in production aircraft.
All Awarded Kit deliveries and Installations are on schedule.

FINANCIAL PLAN: (TOA, $ IN MILLIONS)

FISCAL YEAR	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	QTY	$	QTY	$	QTY	$	QTY	$	QTY	$
RDT&E										
PROCUREMENT										
INSTALLATION KITS										
Addl Force & Drive Rate Output for TCL			39	1.7						
Air Cycle Machine Filtration			23	0.9	12	0.4	16	0.5		
Block A to B (9 A/C) (LOT 5, 41-49)					9	46.8				
Block B #1					20	0.3	19	0.3		
Block B #2					17	0.3				
Block C (120 A/C)										
CCP-0107/Thrust Cntrl Lever Soft Stop	2	0.1								
CCP-0138/Aft Upper Door Strut	8	0.1								
CCP-0147 Rain Removal	6	0.2								
CCP-0151/Add Manual Drive Decal	4	*								
CCP-0161/Shaft Driven Compressor	8	0.3								
CCP-0163/Swashplate Gimbal Ring	8	0.6								
CCP-0177R1/Inst Powder Panels, FSFBAR	8	2.6								
CCP-0188/Data Transfer Module	8	0.4								
CCP-0192R1/Regulator Converter	8	2.0								
CCP-0206/Inertial Reels	8	0.2								
CCP-0208/Fuel Isolation Tubes	8	0.3								
CCP-0216/Cntrl Display Unit	8	1.0								
CCP-0217/Shaft Driven Compressor	8	0.1								
CCP-0224/Avi Left Hand Mounting Tray	8	0.2								
CCP-0249/Enviro Cntrl Unit Ram	8	2.6								
CCP-0279/Update Ramp Actuator	8	1.4								
CCP-0301/Cntrl Display Unit Keyboard	8	0.6								
CCP-0319/Refuel-Defuel Valve	8	0.4								
CCP-10641R2/Display Sys Upg/Flat Panels	8	2.2								
CCP-10670R1/Implem Cockpit Intercom Mod	8	0.3								
CCP-10692/Trunnion	8	0.8								
CCP-10703R1/AMC Post Part No Roll	8	3.0								
CCP-10716/Swashplate Actuator	8	4.6								
CCP-10718/Eng Gimbal Ring Spher Bearing	4	0.3								
CCP-40008/NVG Compat Cockpit Hardware	8	0.2								
Cargo Hook Door Actuator					31	1.0				
Clam Shell Doors (16)							16	9.4		
Climb Dive Valve	28	0.4								
ECP 471 Life Rafts	3	*								
ECP 478 SDC DUCT LEAK SWITCH SET POINT	19	*								
ECP 479 SUCTION LIFT PUMP	20	*								
ECP 493 Wheel & Brake			23	1.3						
ECP-V-22-0348 Interface Units	8	0.3								
ECP-V-22-0647 Lndng Gear Isolation Valve					39	2.2	38	2.1	14	0.8
ECP-V-22-0649 O2N2 Concentrator					36	0.2				
ECP-V-22-0693 Fuel Surge Valve					32	0.1	13	*	19	0.1
ECU Water Spray Design					57	0.2				
Electrical Contactors Matl & Torque Valv			44	0.5	23	0.3				
Engine Air Particle Separator			32	0.8						
FWD Engine Bleed Air			27	0.4						
Fuel System Changes					47	0.6	13	0.2	19	0.2
Full Authority Digital Engine Controller			20	0.1						
Gussets To Fairings			11	*	25	0.1	23	0.1		
IR Suppressor			21	1.4	20	1.5	27	1.7		
Ice Protection - Block B			15	1.5	4	10.0	1	2.5	4	10.0
Improved Nacelle Blower			29	0.4						
MLG Door Hinge Redesign					20	0.3	20	0.3	18	0.3
Plugs & Covers			21	0.5						
Pre Block A to B					1	0.6				
Pre-Block A to B Supplemental					2	54.6				
Purge Chk Valve Cracking Pressure Change					33	*				
Ramp Mounted Weapon System			10	0.6	10	0.2	9	0.7		
Refuel/Defuel Valve					28	0.7				

Totals may not add due to rounding

Rotor Harness Redesign			52	0.7						
Shaft Driven Comp Inlet Barrier Filter					20	0.2				
Slip Ring Commonality (ECP-544)			31	0.3						
Swashplate Actuator Hose			53	1.8						
Troop Seats			44	4.8						
Upper Crew Door					12	1.4	22	2.5	22	2.5
Wing Stow System					20	0.1				
INSTALLATION KITS N/R		3.5		24.8						
INSTALL EQUIPMENT										
INSTALL EQUIPMENT N/R		0.6								
ECO										
DATA		0.2		*		*		*		*
TRAINING EQUIP	10	31.1	15	38.9	7	13.5	5	17.7	4	12.6
SUPPORT EQUIP		0.1		0.1		0.7		2.7		3.2
ILS		1.0								
OTHER SUPPORT				0.8		1.8		2.2		2.5
INTERIM CONTRACTOR SUPPORT										
INSTALLATION COST	199	2.3			29	2.1	127	25.3	78	9.6
TOTAL PROCUREMENT	471	64.0	510	82.2	554	140.0	349	68.4	178	41.8

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

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: V-22 Series

MODIFICATION TITLE: MV-22 CORRECTION OF DEFICIENCIES AND PRE BLOCK A THROUGH C (OSIP 022-01)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION:

ADMINISTRATIVE LEADTIME: Various Months

PRODUCTION LEADTIME: Various Months

CONTRACT DATES: FY 2006 Various FY 2007 Various FY 2008 Various FY 2009 Various

DELIVERY DATE: FY 2006 Various FY 2007 Various FY 2008 Various FY 2009 Various

($ in Millions)

Cost:	PRIOR YEARS		FY 2006		FY 2007		FY 2008		FY 2009	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
FY 2005 & PY (199) kits	199	2.3								
FY 2006 (44) kits					29	2.1	15	0.2		
FY 2007 (132) kits							112	25.1	20	0.3
FY 2008 (85) kits									58	9.3
FY 2009 (25) kits										
Total	199	2.3			29	2.1	127	25.3	78	9.6

Installation Schedule

	PRIOR YEARS	FY 2006				FY 2007				FY 2008				FY 2009			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	199					6	6	8	9	31	31	31	34	19	19	20	20
Out	199						6	6	8	9	31	31	31	34	19	19	20

Totals may not add due to rounding