

Exhibit P-40, BUDGET ITEM JUSTIFICATION							DATE: February 2004				
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/APN-5 Aircraft Modifications							P-1 ITEM NOMENCLATURE F-18 Series Modification				
Program Element for Code B Items:							Other Related Program Elements				
	Prior Years	ID Code	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total
QUANTITY											
COST (In Millions)	1,505.0		385.7	361.0	412.5	394.3	504.6	451.6	468.8	1,527.6	6,011.3
<p>This line item funds modifications to F/A-18 aircraft. The F/A-18 Naval Strike Fighter is a twin-engine, mid-wing, multi-mission tactical aircraft. The F/A-18 is employed in both Navy and Marine Corps squadrons. Commencing with the FY 1988 procurement, both the single seat and two-seat F/A-18's include a night attack capability. 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 2005 is to implement commonality/capability and structural safety and reliability improvements. The specific modifications budgeted and programmed are:</p>											
(TOA, \$ in Millions)											
<u>OSIP No.</u>	<u>Description</u>	<u>Prior Years</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>Complete</u>	<u>Total</u>
11-84	Correction of Discrep.	370.5	57.4	51.0	33.4	39.7	47.8	48.5	51.8	177.1	877.2
39-92	AN/ARC-210	14.9	1.5	1.2							17.6
19-94	Common Configuration	177.7	19.8	0.8	0.1	0.1					198.4
36-94	GPS	73.2	4.5	1.2	1.9					27.4	108.2
38-94	AN/APG-73 RUG	139.3	4.1	0.3							143.7
12-96	PIDS	51.2	1.5	1.5						191.0	245.2
3-97	ATARS	240.4	*	4.2						12.0	256.7
10-99	DCS	4.7	3.7	4.3	4.8	3.4	2.5	1.8	1.5		26.6
11-99	SLMP	38.6	55.1	30.7	103.1	80.6	81.8	70.0	61.3	355.4	876.6
12-99	MIDS ¹	141.1	37.9	46.2	48.8	41.1	46.3	48.0	49.1	5.5	464.0
20-99	NACES P3I	13.8	2.8							3.5	20.1
21-00	USMC F/A-18 UPGRADE (ECP583)	157.3	28.4	51.1	19.9	47.3	41.9	15.1	9.4	110.2	480.5
24-00	JHMCS	1.8	6.4	23.4	27.1	37.1	38.9	36.6	40.4	203.0	414.7
12-01	ATFLIR	52.4	85.9	103.1	103.2	103.7	130.2	133.1	148.8		860.4
19-01	E/F 2000 hr Correction of Discrep.	19.3	15.7	10.7	6.2	2.9	3.2	3.7	9.2		70.9
05-02	Digital Wing Tip for AIM 9X	1.6	0.8	0.6	0.3	0.2	0.2	0.2	0.5	0.5	5.0
06-02	C/D Training System	4.8	37.4	13.9		7.7	6.8	6.9	7.1		84.6
15-02	Fast Tactical Imagery II	2.5		1.0							3.5
12-03	E/F 4000 hr Correction of Discrep.		8.9	6.4	10.2	3.6	2.3	2.9	1.0	6.4	41.7
13-03	E/F 6000 hr Correction of Discrep.		1.8	3.1	4.9	3.0	1.7	0.8	0.7	0.4	16.2
14-03	E/F Correction of Operational Discrep.		11.3	20.2	26.9	16.0	13.7	13.8	11.0	10.1	122.9
15-03	Mark XIII Mode 5 IFF ²		0.9								0.9
08-05	Reserve Squadron ECP560				7.9	7.9	0.4	0.4	0.3		16.8
XX-07	AESA						87.1	69.8	76.8	425.2	658.9
TOTAL		1,505.0	385.7	361.0	412.5	394.3	504.6	451.6	468.8	1,527.6	6,011.3
<p>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)</p>											
RESERVE INCLUDED IN TOTAL			11.7	11.8	7.9	7.9	0.4	0.4	0.3		

INDIVIDUAL MODIFICATION

Exhibit P-3a

MODIFICATION TITLE: CORRECTION OF DISCREPANCIES IDENTIFIED DURING PRELIMINARY EVALUATION, SUBSEQUENT FLIGHT TEST PROGRAMS AND FLEET OPERATIONS (OSIP 11-84)MODELS OF SYSTEM AFFECTED: F/A-18 A/B/C/D TYPE MODIFICATION SAFETY /RELIABILITY/IMPROVEMENT

DESCRIPTION/JUSTIFICATION:

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

<p>External Stores EMI Protection (ECP 087S1) Auto AC Bus Isolation (ECP 121R1) Battery Control Relay Unit (ECP 165R1) FY86 Block Upgrade (ECP 178R1C1) Center Fuselage Structural Mods (ECP 241R1) Dorsal Longeron (ECP 251) Dorsal Longeron (ECP 251R1) 470.5 Bulkhead (ECP 262)* Righthand AMAD Bay (ECP 267R1)* Y508 Former (ECP 276) AFT Engine Mount (ECP 305R1)* Y657.35 Engine Bay Door Former (ECP 306) Main Landing Gear (MLG) Planing Link (ECP 311)* MLG Trunnion Upgrade (ECP 319)* Y488 Bulkhead (ECP 320) Wing Fatigue Repair (ECP 353) MLG Shoulder Belt (ECP 355) ASFJ System Improvement (ECP 364) Y470 Bulkhead Improvement (ECP 365) #1 Fuel Cell Floor (ECP 367) MLG Retract Actuator (ECP 375) Fretting on Formers & Spindles (ECP 391) Fuselage Skin, Y518 to Y534 (ECP 402)* Fuselage Skin, Y518 to Y534 (ECP 402R1)* Inlet Duct Skin at Y453 (ECP 417) Y470.5 Bulkhead MLG Trunnion (ECP 428) Speed Brake Trough (ECP 440) SUJU-63 Wing Pylon Door Panel (ECP 488) Y470.5 Bulkhead Fatigue Change (ECP 492) Fuselage Skin at Y453 (ECP 498) Nacelle Skin Fatigue Improvements (ECP 501) LAU-115 Sparrow Mod (ECP 506)* ST-16 Failures (ECP 536)* Improvement of Inner Wing SPAR (ECP 544) Fuel Barrier Web (ECP 548) Wing Drag Longeron (ECP 550)* Y326.5 Plate Nut (ECP 561) Lower Center Keel Fire Hazard (ECP 562) Aileron/Trailing Edge Flap (ECP 574) Flight Control Computer (ECP 595) Hydraulic Temp Gauges (ECP NI 879) Environment Control System Wiring (NI 742) Wing Fuel Dams (NI 796) MLG Trunnion Assembly (NI 824) Heat Exchanger (NI 827) Night Vision Display System (NVDS) (NI 830) Trailing Edge Flap (NI 839) Birdstrike Res Windshield (NI 843) Aileron Hinge Mod (NI 844) ANTI G VALVE (ECP XXX) Tank 2 & 3 Floor Crack (ECP XXX2) Side Fuselage Crack (ECP592) Front SPAR Crack (ECP XXX5) Forward Lower Keel Modification (ECP NI 931) Main Landing Gear (MLG) Axle (ECP 952) MLG Y488 Bulkhead (ECP XXX8) LOX OBGs Conversion (ECP XXX9) Crease Longeron (ECP XX10) Heat Deterrent (ECP XX11)</p>	<p>Provide for the application of external stores EMI Protection. This ECP includes Installation Costs ONLY Modifies the 50A Battery Charging Converter installation to automatically isolate the busses and reset the generators following a dual power outage. Safety modification to the utility/emergency battery control circuits and adds a battery relay control unit. Prevents inadvertent battery discharge Increases the power handling capabilities of the four port antenna and the RF switchable filter in order to accommodate the RF power output requirements of the ASPJ System Improves fatigue for the Dorsal Deck, Duct Skin rivets at Y442, ECS Inlet Casting, and Y419 Nacelle Former at Ramp Truss Attachment. Life extension modification to the Dorsal Longeron. Life extension modification to the Dorsal Longeron. Improves the fatigue life of the Y470.5 Bulkhead Outer Cap. Reliability and maintainability improvement to the interference between the motive flow tube and the hot fuel recirculation tube Structural improvement of the Y508 Former by increasing the flange thickness and reinforcing the former with integral ribs. Safety modification improves the aft engine mount support to prevent cracking in the aft engine mount support fitting. Modifies the existing door former to prevent cracking. Safety modification to the existing planing link assembly. Belleville washers spring is replaced with nested external compression springs to provide additional overcenter locking force and stroke capability Safety modification reconfigures and strengthens the MLG trunnion assembly to prevent catastrophic failure upon landing or takeoff. Modifies the Y488 bulkhead to reduce structural stress and improve fatigue life. Modifies the fastener holes in the Wing Panel Forward Spar and the #4 Intermediate Wing Spar to increase fatigue life. Safety modification provides new shoulder bolts to correct a deficiency concerning elongation of the AFT bolt hole in the MLG Door Actuator Support Fitting Improves reliability and maintainability by improving the cooling system and correcting transmit switchable filter qual test problems Modifies the Y470 bulkhead to reduce structural stress and improve fatigue life. Safety modification to improve the fuel cell floor strength to prevent cracking during catapult. Redesigns the MLG Retract Actuator Support Fitting and the Flange of Y470.5 Bulkhead where the fitting attaches and revises hydraulic timing to lengthen the Fatigue Life of the structures Safety modification to correct fretting observed on outboard formers of horizontal stabilizer. Modifies exterior fittings and adds and internal bathtub to strengthen the area, reduce structural stress, and improve fatigue life. Modifies exterior fittings and adds and internal bathtub to strengthen the area, reduce structural stress, and improve fatigue life. Addresses the retrofit design which will provide 12,000 SFH of life without cracks for the Inlet Duct Skin Corrects the deficiency in the MLG Trunnion support at Y470.5 bulkhead. Modifies the existing speed brake trough area to strengthen it and improve fatigue life. Safety modification to the existing door panel to preclude loss of the door during flight Modifies the thickness of the existing bulkhead web to increase strength and improve fatigue life. Safety modification to strengthen existing fasteners attaching the P/N 74A324350 former to Y453 bulkhead. Retrofits the Inlet Nacelle Skin to correct acoustic vibration related fatigue failures. Modifies the lower rail of the LAU-115 to strengthen the area of the AIM-7 Sparrow missile forward hanger interface and improve fatigue life Modifies aircraft between Lot VI and Lot XVI to realize Full Life Airframe (6000 Fatigue Hours) Strengthens the existing inner wing spar to improve fatigue life. Safety improvement to the existing fuel barrier web to prevent fuel leaks. Structural improvement to the Wing Drag Longeron due to tabs attached to the closeout webs were cracking during installation. Modifies the existing fasteners at the Y326.5 Bulkhead to improve fatigue life. Safety improvement to the secondary pressure regulator bay to eliminate fire hazards. Provides a full-life improvement for aircraft degradation caused by cracked trailing edge flap and aileron hinges. Improves safety-of-flight for the recovery from, and resistance to, out-of-control flight (OOCF) while also eliminating anomalies cited in FCC OFF 91C*004. (NON-RECURRING COSTS ONLY) Improves the reliability of the hydraulic temperature gauges. Modifies wiring to the number 3 Relay Panel Assembly to connect the Left MainGear (LMG) Weight on Wheels (WOW) Relay ABD the Dump/RAM Dump Relay. Safety improvement modifies the inner wing inboard closure rib to prevent fuel leaks. Safety improvement to the MLG trunnion assembly to improve fatigue life and prevent failed landing gear mishaps. Provides for the removal of the nickel core and replaces with a more reliable stainless steel and nickel core. Adds capability to the lighting system to make the NVDS compatible. Safety modification to the trailing edge flap to correct flap departures while in flight. Safety modification to the windshield to protect against birdstrikes during flight Provide a full-life improvement for aircraft degradation caused by cracked trailing edge flap and aileron hinges. Improves pilot G-Load tolerance as part of the Navy Combat Edge (NCE) Anti-G Protection System. Safety modification to correct cracks at Y431, Y442, and Y453 in the fuel cavity floor deck centerline under tank two and three Safety improvement to the fatigue life of the forward skin section of the chem-milled panels. Strengthens the existing front inner wing SPAR to improve fatigue life. Improves fatigue life of the Nose Landing Gear (NLG) Drag Brace. Incorporation of Full Life redesigned Main Landing Gear Axle Polygon, extending Axle's service life from current 8300 total landings to 13000. Restores Full Life to Y488 Bulkhead due to cracks around MLG Uplock hardware holes Retrofit LOX equipped aircraft with OBOGs solutions that are integrated with supplemental oxygen systems Restores the load path lost when the Crease Longeron cracks at FS 453. Modifies the aircraft to correct structural fatigue problems caused by degraded ECS Peri-Seats.</p>
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

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 11-8)																		
MODELS OF SYSTEM AFFECTED:		F/A-18 A/B/C/D									TYPE MODIFICATION: SAFETY /RELIABILITY/IMPROVEMENT									
FINANCIAL PLAN (TOA, \$ in Millions):																				
	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
PROCUREMENT																				
Installation Kits																				
ECP 087S1/External Stores EMI Protection																				
ECP 121R1/Auto AC Bus Isolation																				
ECP 165R1/Battery Control Relay Unit																				
ECP 178/Y88 Block Upgrade																				
ECP 241R1/Center Fuselage Structural Mods																				
ECP 251/Dorsal Longeron																				
ECP 251R1/Dorsal Longeron																				
ECP 262/470.5 Bulkhead																				
ECP 267R1/Righthand AMAD Bay																				
ECP 276/Y508 Former																				
ECP 305/AFT Engine Mount																				
ECP 306/Y657.35 Engine Bay Door Former																				
ECP 311/Main Landing Gear (MLG) Planing Link																				
ECP 318/MLG Trunnion Upgrade																				
ECP 320/Y488 Bulkhead																				
ECP 353/Wing Fatigue Repair																				
ECP 355/MLG Shoulder Belt																				
ECP 364/ASPJ System Improvement																				
ECP 365/Y470 Bulkhead Improvement																				
ECP 367/#1 Fuel Cell Floor																				
ECP 375/MLG Retract Actuator																				
ECP 391/Fretting on Formers & Spindles																				
ECP 402/Fuselage Skin, Y519 to Y533																				
ECP 402R1/Fuselage Skin, Y518 to Y534																				
ECP 417/Inlet Duct Skin at Y453																				
ECP 428/Y470.5 Bulkhead MLG Trunnion																				
ECP 440/Speed Brake Trough																				
ECP 488/SUU-63 Wing Pylon Door Panel																				
ECP 492/Y470.5 Bulkhead Fatigue Change																				
ECP 498/Fuselage Skin at Y453																				
ECP 501/Nacelle Skin Fatigue Improvements																				
ECP 506/LAU-115 Sparrow Mod																				
ECP 536/ST-16 Failures																				
ECP 544/Improvement of Inner Wing SPAR																				
ECP 548/Fuel Barrier Web																				
ECP 550/Wing Drag Longeron																				
ECP 561/Y326.5 Plate Nut																				
ECP 562/Lower Center Keel Fire Hazard																				
ECP 574/Trailing Edge Flaps																				
ECP 574/Aileron																				
NI879/Hydraulic Temp Guages																				
NI 742/Environment Control System Wiring																				
NI 796/Wing Fuel Dams																				
NI 824/MLG Trunnion Assembly																				
NI 827/Heat Exchanger																				
NI 830/Night Vision Display System (NVDS)																				
NI 839/Trailing Edge Flap																				
ECP XXX - ANTI G VALVE																				
ECP XXX2 - Tank 2 & 3 Floor Crack																				
ECP 592 - Side Fuselage Crack																				
ECP XXX5 - Front SPAR Crack																				
ECP NI 931 - Forward Lower Keel Modification																				
ECP 952 - MLG Aisle																				
ECP XXX8 - MLG Y488 Bulkhead																				
ECP XXX9 - LOX OBGs Conversion																				
ECP XX10 - Crease Longeron																				
ECP XX11 Heat Derren																				
Installation Kits N/R																				
Installation Equipment																				
Installation Equipment N/R																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
ILS																				
Other Support																				
Interim Contractor Suppor																				
Installation Cost																				
TOTAL PROCUREMENT																				

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

INDIVIDUAL MODIFICATION

Exhibit P-3a

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

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

DESCRIPTION/JUSTIFICATION:

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

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

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

FINANCIAL PLAN (TOA, \$ in Millions):

	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
Lot XII through XXI Kit	79	1.3																	79	1.3	
Lot X through XI Kit	141	4.0																	141	4.0	
Installation Kits N/R		0.8																			0.8
Installation Equipment **																					
Lot XII through XXI Kit	114	5.6																	114	5.6	
Lot X through XI Kit																					
Installation Equipment N/R																					
Engineering Change Orders																					
Data		0.3																			0.3
Training Equipment																					
Support Equipment																					
ILS		0.2		0.1		*															0.3
Other Support																					
Interim Contractor Support																					
Installation Cost	119	2.8	60	1.4	41	1.1														220	5.4
TOTAL PROCUREMENT		14.9		1.5		1.2															17.6

Notes:

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

Exhibit P-3a

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

INSTALLATION INFORMATION:

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

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 24 Months

CONTRACT DATES: FY 2003: _____ FY 2004: _____ FY 2005: _____

DELIVERY DATE: FY 2003: _____ FY 2004: _____ FY 2005: _____

(\$ in Millions)

Cost:	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2002 & PY (220) kits	119	2.8	60	1.4	41	1.1													220	5.4
FY 2003 () kits																				
FY 2004 () kits																				
FY 2005 () kits																				
FY 2006 () kits																				
FY 2007 () kits																				
FY 2008 () kits																				
FY 2009 () kits																				
To Complete () kits																				
TOTAL	119	2.8	60	1.4	41	1.1													220	5.4

Installation Schedule

	FY 2002 & Prior	FY 2003				FY 2004				FY 2005				FY 2006					
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In	119	0	20	20	20	0	15	15	11	0	0	0	0	0	0	0	0	0	0
Out	119	0	20	20	20	0	15	15	11	0	0	0	0	0	0	0	0	0	0

	FY 2007				FY 2008				FY 2009				To Complete	TOTAL
	1	2	3	4	1	2	3	4	1	2	3	4		
In	0	0	0	0	0	0	0	0	0	0	0	0	0	220
Out	0	0	0	0	0	0	0	0	0	0	0	0	0	220

Exhibit P-3a **INDIVIDUAL MODIFICATION**

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

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

DESCRIPTION/JUSTIFICATION:

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

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

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

FINANCIAL PLAN (TOA, \$ in Millions):

	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
INSTALLATION KITS																					
NI818/CVRS	314	2.9																			
CDII-045/VPM("O"Level")	559	57.0																			
CDII-051/VPM("O"Level")	217	20.6																			
INSTALLATION KITS N/R		33.6		6.2																	
INSTALLATION EQUIP.																					
NI818/CVRS																					
CDII-045/VPM("O"Level")																					
CDII-051/VPM("O"Level")	291	7.6																			
INSTALLATION EQUIP. N/R																					
ENGINEERING CHANGE ORDERS																					
DATA		3.8																			
TRAINING EQUIPMENT		0.3																			
SUPPORT EQUIPMENT(SE NR, PSE, SE ILS)		41.3		11.9		0.8		0.1													
ILS		4.6		1.8																	
OTHER SUPPORT																					
INTERIM CONTRACT SUPPORT																					
Installation Cost	727	6.2																			
TOTAL PROCUREMENT		177.7		19.8		0.8		0.1													

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

Exhibit P-3a	INDIVIDUAL MODIFICATION																				
MODIFICATION TITLE:	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:																					
<p>GPS (ORD# 401-88-95) is a space-based worldwide radio navigation aid that provides precise position, velocity, and time data under all-weather conditions twenty-four hours a day, and is proposed to replace land-based TACAN. Incorporation of the GPS in the F/A-18 aircraft provides the following: accurate navigation position and velocity, precision close air support, onboard sensor positioning, command and control guidance, search and rescue guidance, accurate all-weather air drops and accurate time standard. The F/A-18A (Lot VI through IX) GPS requirements will be satisfied by retrofitting the Embedded Global Positioning Inertial Navigation System. F/A-18C/D requirements will be satisfied by retrofitting the Miniature Airborne GPS Receiver (MAGR) in Lot X through Lot XVI and forward fitting Lot XVII through Lot XXI. This OSIP will also be used to perform non-recurring efforts to address parts obsolescence and to examine potential GPS-related capability upgrades associated with Network Centric Operations and interoperability requirements.</p>																					
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:																					
<p>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.</p> <p>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:</p> <ol style="list-style-type: none"> 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. F/A-18 Mission Computer S/W testing to incorporate EGI functionality has experienced continual slips due to EGI hardware immaturity. 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. 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. <p>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).</p>																					
FINANCIAL PLAN (TOA, \$ in Millions):																					
	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
Lot VI through IX Kit (Note 3)	67	5.1																	219	6.1	
Lot X through XVI Kit	392	6.3	15	0.5															443	7.9	
Installation Kits N/R		34.0																		34.0	
Installation Equipment																					
Lot VI through IX Kit																				152	13.3
Lot X through XVI Kit	358	11.4	20	0.8	16	0.6	16	0.7											443	17.6	
Installation Equipment N/R								0.5												0.5	
Engineering Change Orders		2.5		1.6																4.1	
Data																					
Training Equipment		2.0																		2.0	
Support Equipment		1.8																		1.8	
ILS		1.0		0.1		0.2		0.4												1.7	
Other Support																					
Interim Contractor Support																					
Installation Cost	365	9.2	64	1.5	15	0.4	15	0.4											647	19.3	
TOTAL PROCUREMENT		73.2		4.5		1.2		1.9												108.2	
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. Asterisk indicates amount less than \$50K																					
4. 15 "A" kits procured in FY91 to 98 were not installed due to technical issue addressed above.																					

Exhibit P-3a

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

INSTALLATION INFORMATION:

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

ADMINISTRATIVE LEADTIME: 5 Months PRODUCTION LEADTIME: 18 Months

CONTRACT DATES: FY 2003: Mar-03 FY 2004: _____ FY 2005: _____

DELIVERY DATE: FY 2003: Sep-04 FY 2004: _____ FY 2005: _____

(\$ in Millions)

Cost:	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2002 & PY (459) kits	365	9.2	64	1.5	15	0.4													444	11.0
FY 2003 (15) kits							15	0.4											15	0.4
FY 2004 () kits																				
FY 2005 () kits																				
FY 2006 () kits																				
FY 2007 () kits																				
FY 2008 () kits																				
FY 2009 () kits																				
To Complete (188) kits																			188	7.9
TOTAL	365	9.2	64	1.5	15	0.4	15	0.4											647	19.3

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

Installation Schedule

	FY 2002 & Prior	FY 2003				FY 2004				FY 2005				FY 2006						
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4			
In	365	14	15	18	17	3	4	4	4	3	4	4	4							
Out	365	14	15	18	17	3	4	4	4	3	4	4	4							

	FY 2007				FY 2008				FY 2009				To Complete	TOTAL	
	1	2	3	4	1	2	3	4	1	2	3	4			
In															
Out															

Exhibit P-3a		INDIVIDUAL MODIFICATION																		
MODIFICATION TITLE:		AN/APG-73 RADAR UPGRADE (RUG) PHASE I & RUG PHASE II (OSIP 38-94)										TYPE MODIFICATION: CAPABILITY IMPROVEMENT								
MODELS OF SYSTEM AFFECTED:		F/A-18C/D																		
DESCRIPTION/JUSTIFICATION:																				
<p>The F/A-18 radar (AN/APG-65), requires an upgrade to improve electronic counter-countermeasures (ECCM) performance against improved threat electronic countermeasures (ECM). This threat ECM improvement has partially resulted from compromises in the F/A-18 radar performance against various threat electronic warfare systems. The AN/APG-73 radar follows and capitalizes on AN/APG-70 and AN/APG-71 developmental and value engineering programs to maximize shop replaceable assembly (SRA) commonality. ORD # 199-05-88 (Radar Upgrade Phase I) and ORD # 022-05-83 (Radar Upgrade Phase II).</p>																				
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:																				
<p>Forward fit of the AN/APG-73 was incorporated into Lot 16 (Block 43) and subsequent aircraft. Rug Phase I was approved for full rate production of retrofit units in September 1996. This OSIP reflects retrofit of Lot 13 through Lot 16 (Block 42) aircraft. A Pre-planned Product Improvement (P3I) Phase II to the RUG program developed improved hardware and software for an all-weather Reconnaissance (RECCE) strip map mode. Additional modes can be incorporated with software changes as required in the future. Development of RUG Phase II completed in FY 1998 and retrofit procurements began in FY 1999.</p>																				
FINANCIAL PLAN (TOA, \$ in Millions):																				
	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E (0204136N/E2065)		293.0		4.1																297.1
PROCUREMENT																				
Installation Kits																				
ECP 508 / RUG - Phase I Kit	58	103.0																	58	103.0
ECP 569 / RUG - Phase II Kit	32	12.3	2	0.7															34	13.1
Installation Kits N/R		5.6																		5.6
ECP 508 / RUG - Phase I Equip																				
ECP 569 / RUG - Phase II Equip																				
Installation Equipment																				
ECP 508 / RUG - Phase I Equip																				
ECP 569 / RUG - Phase II Equip																				
Installation Equipment N/R		2.2																		2.2
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment		4.1																		4.1
ILS		11.3		3.2		0.2														14.7
Other Support																				
Interim Contractor Support																				
Installation Cost	44	0.8	7	0.2	7	0.1													58	1.1
TOTAL PROCUREMENT		139.3		4.1		0.3														143.7

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

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: F/A-18C/D MODIFICATION TITLE: AN/APG-73 RADAR UPGRADE (RUG) PHASE I & RUG PHASE II (OSIP 38-94)

METHOD OF IMPLEMENTATION: Phase I kits are Depot Level; Phase II kits are Organization level. Schedule below reflect RUG Phase I installs only.

ADMINISTRATIVE LEADTIME: 4 Months PRODUCTION LEADTIME: 18 Months

CONTRACT DATES: FY 2003: _____ FY 2004: _____ FY 2005: _____

DELIVERY DATE: FY 2003: _____ FY 2004: _____ FY 2005: _____

(\$ in Millions)

Cost:	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2002 & PY (58) kits	44	0.8	7	0.2	7	0.1													58	1.1
FY 2003 (0) kits																				
FY 2004 (0) kits																				
FY 2005 (0) kits																				
FY 2006 (0) kits																				
FY 2007 (0) kits																				
FY 2008 (0) kits																				
FY 2009 (0) kits																				
To Complete (0) kits																				
TOTAL	44	0.8	7	0.2	7	0.1													58	1.1

(\$ in Millions)

Installation Schedule

	FY 2002 & Prior	FY 2003				FY 2004				FY 2005				FY 2006					
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In	44	0	0	3	4	4	3	0	0	0	0	0	0	0	0	0	0	0	0
Out	44	0	0	3	4	4	3	0	0	0	0	0	0	0	0	0	0	0	0

	FY 2007				FY 2008				FY 2009				To Complete	TOTAL	
	1	2	3	4	1	2	3	4	1	2	3	4			
In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58
Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58

INDIVIDUAL MODIFICATION

Exhibit P-3a

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

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

DESCRIPTION/JUSTIFICATION:
 The Positive Identification System (PIDS) will allow the F/A-18 to positively identify another aircraft. The requirement for positive identification of enemy and friendly aircraft arose from Desert Storm lessons learned and is a CNO high priority issue. Although Lot applicability is back to Lot X, FYDP funding represents an affordable plan. ORD # 446-88-96

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

FINANCIAL PLAN (TOA, \$ in Millions):

	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL			
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$		
RDT&E		89.7																			89.7	
PROCUREMENT																						
Installation Kits																						
Lot X through XIX Kit	90	27.9																			526	178.4
Lot XX through XXI Kit																						
Installation Kits N/R		7.0																				7.0
Installation Equipment (Note 1)																						
Lot X through XIX Kit																						
Lot XX through XXI Kit																						
Installation Equipment N/R																						
Engineering Change Orders																						
Data		1.2																				1.2
Training Equipment		2.7																				2.7
Support Equipment		5.4																				5.4
ILS		2.2		*		*																2.3
Other Support																						
Interim Contractor Support																						
Installation Cost	56	4.8	17	1.5	17	1.5															526	48.4
TOTAL PROCUREMENT		51.2		1.5		1.5																245.2

- 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: POSITIVE IDENTIFICATION SYSTEM (OSIP 12-96)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: DEPOT LEVEL

ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 18 Months

CONTRACT DATES: FY 2003: _____ FY 2004: _____ FY 2005: _____

DELIVERY DATE: FY 2003: _____ FY 2004: _____ FY 2005: _____

(\$ in Millions)

Cost:	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2002 & PY (90) kits	56	4.8	17	1.5	17	1.5													90	7.8
FY 2003 (0) kits																				
FY 2004 (0) kits																				
FY 2005 (0) kits																				
FY 2006 (0) kits																				
FY 2007 (0) kits																				
FY 2008 (0) kits																				
FY 2009 (0) kits																				
To Complete (436) kits																			436	40.5
TOTAL	56	4.8	17	1.5	17	1.5													526	48.4

Installation Schedule

	FY 2002 & Prior	FY 2003				FY 2004				FY 2005				FY 2006						
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4			
In	56	4	4	4	5	4	4	4	5	0	0	0	0							
Out	56	4	4	4	5	4	4	4	5	0	0	0	0							

	FY 2007				FY 2008				FY 2009				To Complete	TOTAL
	1	2	3	4	1	2	3	4	1	2	3	4		
In														526
Out														526

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: F/A-18 ADVANCED TACTICAL AIRBORNE RECONNAISSANCE SYSTEM (ATARS) (OSIP 3-97)

MODELS OF SYSTEM AFFECTED: F/A-18D(RC) TYPE MODIFICATION: OPERATIONAL UPGRADE

DESCRIPTION/JUSTIFICATION:
 The need for a modern reconnaissance capability for the Navy and Marine Corps was clearly demonstrated during Operation Desert Shield/Desert Storm. Specific deficiencies noted were: poor connectivity with coalition forces, no wide-area standoff or all weather reconnaissance, and insufficient quantities of reconnaissance platforms. Lessons learned emphasized the value of timely imagery intelligence to support the tactical commander's concept of operations. In order to provide low to medium altitude, day/night, penetrating under-the weather overflight imagery to meet the Operational Requirement for the Navy and Marine Corps, the Navy is capitalizing on the work accomplished in the former ATARS Program and is leveraging the Air Force investment in ATARS to develop an ATARS-based Tactical Reconnaissance System for the F/A-18. Since system delivery, a need has arisen to upgrade the current recording system to a Digital Solid State Recorder. A Congressional add in FY 2004 provided funding for procurement of 6 recorders.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:
 An engineering change to the F/A-18 which would allow internal carriage of reconnaissance sensors was incorporated in production via ECP-206 in the F/A-18D starting with FY 1992 procured aircraft. All subsequently procured F/A-18Ds contained the reconnaissance modifications in their baseline configuration. Development of the Advanced Tactical Airborne Reconnaissance System (ATARS) began in 1988 with the Air Force as the lead service. ATARS was developed as a common reconnaissance system for use by the Air Force, Navy, and Marine Corps in both manned and unmanned platforms. The Air Force and the ATARS prime contractor mutually agreed to a cessation of effort on the ATARS contract in June 1993, and the Navy/Marine Corps assumed program leadership in August 1993. A go-ahead decision to procure four(4) LRIP-1 ATARS systems in February 1997 and six (6) LRIP-2 units and four Datalink pods in March 1998. An Early Operational Capability (EOC) was approved in May 1999 leading to a deployment of the system to Kosovo. Formal OPEVAL began in September 1999 leading to a Milestone III decision in July 2000 for Full Rate Production. NAVAIR ECP-549, allowed for the procurement & installation of the AN/ASD-10(V) ATARS Sensor System Pallet and the AN/ARQ-56 Data Link Pod, and resulted in AFC-244 (an "O" Level Change), and AVC-4744 (an "O" Level Change). These changes have been approved and implemented. NAVAIR North Island submitted ECP-960, a depot level modification to the F/A-18 SUU-62 Centerline Pylon to enable carriage of the AN/ARQ-56 ATARS Data Link Pod. This ECP resulted in a need for additional funding in FY 2002 through FY 2004. Since system delivery, a need has arisen to upgrade the current recording system to a Digital Solid State Recorder. Congress added \$11.9M in FY 2003 to integrate this capability into the F/A-18D ATARS capable aircraft. This development is scheduled to be completed in FY 2005.

FINANCIAL PLAN (TOA, \$ in Millions):

	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E		223.4		11.5																	234.9
PROCUREMENT																					
Installation Kits																					
Suites, DL, Ground Stations	39	159.5																		39	159.5
Solid State Recorders					6	3.9														18	12.3
Installation Kits N/R		33.8																			33.8
Installation Equipment																					
Installation Equipment N/R																					
Engineering Change Orders		2.0		*		*															2.0
Data																					
Training Equipment		0.2																			0.2
Support Equipment		8.3																			10.1
ILS		13.6																			15.4
Other Support		22.1				0.3															22.4
Interim Contractor Support		1.0																			1.0
Installation Cost																					
TOTAL PROCUREMENT		240.4		*		4.2															256.7

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

INSTALL KIT COMPONENTS BREAKOUT:

	FY97	FY98	FY99	FY00	FY01
ATARS SUITES	4	6	4	5	0
DATA LINK PODS	0	4	0	0	9
SQUADRON GROUND STATIONS	1	2	4	0	0

Exhibit P-3a		INDIVIDUAL MODIFICATION																		
MODIFICATION TITLE:		DIGITAL COMMUNICATIONS SYSTEM (DCS) (OSIP 10-99)																		
MODELS OF SYSTEM AFFECTED:		F/A-18 C/D (Lots 10-21)								TYPE MODIFICATION: CAPABILITY IMPROVEMENT										
DESCRIPTION/JUSTIFICATION:																				
<p>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.</p>																				
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:																				
<p>The AN/ARC-210 RT is being upgraded to a DCS RT. Initial Engineering Developmental Model (EMD) 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 (OFF) 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.</p>																				
FINANCIAL PLAN (IOA, \$ in Millions):																				
	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E		35.3																		
PROCUREMENT																				
Installation Kits																				
Lot XII through XXI Kit	196	0.6	32	0.1	36	0.1	72	0.2												
Lot X through XI Kit					72	0.5	31	0.3												
Installation Kits N/R		0.6																		
Installation Equipment																				
Lot XII through XXI Kit ("B" Kit)	14	0.7	26	0.9																
Lot X through XI Kit (ACI)			32	2.1	40	2.5	36	2.4												
Installation Equipment N/R																				
Engineering Change Orders							0.6													
Data		*																		
Training Equipment		0.6																		
Support Equipment		0.7				0.2	0.2													
ILS		0.8		0.1		0.2	0.4													
Other Support																				
Interim Contractor Support																				
Installation Cost	57	0.6	58	0.4	56	0.8	57	0.8												
TOTAL PROCUREMENT		4.7		3.7		4.3		4.8												
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 2003: Mar-03 FY 2004: Jan-04 FY 2005: Jan-05

DELIVERY DATE: FY 2003: Mar-05 FY 2004: Jan-06 FY 2005: Jan-07

(\$ in Millions)

Cost:	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2002 & PY (196) kits	57	0.6	58	0.4	56	0.8	25	0.4													
FY 2003 (32) kits							32	0.4													
FY 2004 (108) kits																					
FY 2005 (123) kits																					
FY 2006 (84) kits																					
FY 2007																					
FY 2008																					
FY 2009																					
To Complete () kits																					
TOTAL	57	0.6	58	0.4	56	0.8	57	0.8													

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 2002 & Prior	FY 2003				FY 2004				FY 2005				FY 2006							
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
In	57	16	16	15	11	18	18	10	10	13	12	16	16								
Out	57	16	16	15	11	18	18	10	10	13	12	16	16								

	FY 2007				FY 2008				FY 2009				To Complete	TOTAL	
	1	2	3	4	1	2	3	4	1	2	3	4			
In															
Out															

INDIVIDUAL MODIFICATION

Exhibit P-3a
 MODIFICATION TITLE: **F/A-18 AIRCRAFT STRUCTURAL LIFE MANAGEMENT PLAN (SLMP) (OSIP 11-99) CBR+**
 MODELS OF SYSTEM AFFECTED: **F/A-18C/D** TYPE MODIFICATION: **SAFETY / LIFE EXTENSION**

DESCRIPTION/JUSTIFICATION:

Incorporation of structural enhancements and changes is required to attain F/A-18 service life and maintain sufficient aircraft inventory to meet fleet operational requirements through FY2020. Structural enhancements and changes include resolution of discrepancies identified as a result of Structural Test (ST-16) and in-service experience. These enhancements and changes include: modifications to allow the entire airframe to achieve 6,000 spectrum flight hours; modifications to ensure structures currently limited to 78% of design life can achieve 100% life; modifications to ensure landing gear, catapult and arrestment components and associated structure achieve at least 2700 cats/traps; modifications to ensure landing gear and associated structure achieve a total of at least 14,500 landings; to ensure flight control surfaces and associated / attaching components achieve 6,000 spectrum flight hours; to ensure a 30-year service life for primary and secondary structural components of metallic and nonmetallic (composite, polymer, etc) construction. The unacceptable alternative to retrofitting would be the failure to reach full fatigue life for these aircraft and to not correct the structural defects discovered on fatigue test articles. In many cases, the mission capability of the aircraft would be adversely affected in addition to its reduced service life. As a result, aircraft may be prematurely removed from useful service. Center Barrel Replacement Plus (CBR+) is applicable to F/A-18A/Bs as well as to F/A-18C/Ds. Currently F/A-18A/Bs are not in the plan. However, the F/A-18As being retrofitted with upgraded avionics changes may require a service life extension in the future.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Currently all Lot VI through XVII aircraft have 78% life limits without the SLMP modifications to bring them to 100% airframe life. MDA and NGC developed ECP536 retrofit repair to modify these aircraft so they could restore the airframe to full life. ECP 536 was approved and Validation was completed May 2001. NADEP North Island developed ECP904NI (CBR+) which was approved on 27 April 2000. Validation started October 2000 and was completed in August 2001. Verification started August 2001 and was completed June 2002. ECP 536 moved from this OSIP to OSIP 11-84 in FY02.

FINANCIAL PLAN (TOA, \$ in Millions):

	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E		16.0		3.6																
PROCUREMENT																				
Installation Kits																				
ECP 904 Part 1	16	14.5	37	26.6	14	12.2	40	32.1												
ECP 904 Part 2	5	3.3	12	8.8			2	1.3												
ECP 904 Part 3			5	1.5	25	8.4	53	17.1												
Installation Kits N/R	3	9.3	2	6.3		0.2	1	5.2												
Installation Equipment				0.8		0.3	1.6													
Installation Equipment N/R		0.1		0.1																
Engineering Change Orders																				
Data		3.5		1.4			0.3													
Training Equipment																				
Support Equipment																				
ILS		3.5		6.4		3.3	9.5													
Other Support																				
Interim Contractor Support																				
Installation Cost	4	4.4	***4	3.2	7	6.4	37	36.1												
TOTAL PROCUREMENT		38.6		55.1		30.7	103.1													

Notes:

- 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.
- "Installation Kit" Pricing is Quantity Sensitive. FMS procurements in some years also affects unit price.
- ECP 904 Part 2 is required to correct a Root Wing FLE problem and is not required for all aircraft.
- ECP 904 Part 3 is to required fix CAT & TRAP deficiencies. It is not required for all aircraft.

Exhibit P-3a

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

INSTALLATION INFORMATION: CONTRACTOR PROVIDING 1 WARRANTY KIT

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

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 24 Months

CONTRACT DATES: FY 2003: Jan-03 FY 2004: Jan-04 FY 2005: Jan-05

DELIVERY DATE: FY 2003: Jan-05 FY 2004: Jan-06 FY 2005: Jan-07

(\$ in Millions)

Cost:	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2002 & PY (15) kits	4	4.4	4	3.2	7	6.4														
IN WARRANTY (1) kit	1																			
FY 2003 (37) kits							37	36.1												
FY 2004 (14) kits																				
FY 2005 (40) kits																				
FY 2006 (37) kits																				
FY 2007 (31) kits																				
FY 2008 (21) kits																				
FY 2009 (20) kits																				
To Complete (139) kits																				
TOTAL	5	4.4	4	3.2	7	6.4	37	36.1												

Installation Schedule

	FY 2002 & Prior	FY 2003				FY 2004				FY 2005				FY 2006						
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4			
In	5	1	1	1	1	1	2	2	2	8	9	10	10							
Out	3	1	0	1	1	1	1	1	1	0	2	2	2							

	FY 2007				FY 2008				FY 2009				To Complete	TOTAL	
	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** TYPE MODIFICATION: **CAPABILITY IMPROVEMENT**

DESCRIPTION/JUSTIFICATION:
 The system is Tactical Data Link Communications to provide a secure communications and navigation system. MIDS is a Pre-planned Product Improvement (P3I) to the Joint Tactical Information System (JTIDS) and will be installed in USN/USMC F/A-18 aircraft as the primary U.S. platform, since the aircraft can not accommodate the larger JTIDS Class 2 Terminals due to size and weight constraints. MIDS LVT is an International Cooperative Program (ICP) development with France, Germany, Italy, and Spain. A PMOU and Supplement 1 is in effect. The system will be interoperable with JTIDS Class 2 Terminals utilized by NATO allies as well as the other Services. F/A-18 will be interoperable with all Link 16 equipped platforms in U.S. and Allied Nations. This OSIP will also be used to perform efforts to address parts obsolescence and to examine potential MIDS-related capability upgrades associated with Network Centric Operations and interoperability requirements. ORD # 337-06-93

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:
 This OSIP is planned for incorporation of MIDS into F/A-18C/D (Lots 12-21) and F/A-18E/F (Lots 22-26). A MIDS installation kit Critical Design Review (CDR) was held at Boeing in September 1996. MIDS Terminal initial Engineering and Manufacturing Development (E&MD) delivery for F/A-18 occurred in February 1998. Installation into the first three (3) EMD aircraft began in March 1998 and ended in September 1998. In May 1999, Boeing was awarded the ECP contracts required to provision the F/A-18E/F for the MIDS LVT while still in production. These provisions include: an Interference Blanking Unit (IBU); an Amplifier Control Intercommunication Unit (ACI); a MIDS Compatible CIT upgrade; and a MIDS Compatible Transponder upgrade. This list of equipment was also required to be retrofit into F/A-18C/D and is included as the "Avionics Upgrade" in the table below. These provisions are required by other F/A-18 programs and can be installed independently of MIDS LVT. OPEVAL was completed in June 2003, with a recommendation of operationally effective and operationally not suitable. A Verification Correction of Deficiencies (VCD) was completed on 15 August 2003. The VCD report delivered on 4 September 2003 recommended full fleet release. Full Rate Production approval was granted on 25 September 2003.

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

	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E		26.5		3.0		0.4		0.9													
PROCUREMENT																					
Installation Kits																					
Lot 12 through 21 Kits	136	22.4	48	7.8	48	7.7	48	7.7													
Lot 10 through 11 Kits																					
Installation Kits N/R																					
Installation Equipment																					
Avionics Upgrade	136	23.9	48	8.5	48	8.4	48	8.4													
MIDS LVT	147	50.4	25	7.1	65	18.8	72	21.2													
Installation Equipment N/R		37.2																			
Engineering Change Orders							0.5														
Data		0.8		0.6																	
Training Equipment																					
Support Equipment		2.0		0.9		0.7		0.9													
ILS		3.2		1.7		0.9		1.1													
Other Support		7.7		5.8		5.5		4.3													
Interim Contractor Support																					
Installation Cost	38	4.9	56	5.8	42	4.2	48	4.8													
TOTAL PROCUREMENT		152.6		37.9		46.2		48.8													

- Notes:
1. Totals may not add due to rounding
 2. Asterisk indicates amount less than \$50K
 3. "A" Kits and Avionics Upgrade continue to be procured and MIDS installations continue on the C/D's to maintain schedule.
 4. 12 Installations kits and Avionics Upgrades, plus 23 MIDs LVT procured through DERF(\$11.5M), in FY02. Installation will be accomplished through budgeted FY04 installation cost.
 5. 173 MIDS LVTs planned for Lot 22 - 26 E/F (provisioned in production) and 40 planned for DT & OT.
 6. Production Engineering (w/ SPAWAR) scheduled to pay share of FSE support and associated Fleet Standup and deployment Issues (Other Support).

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: F/A-18C/D/E/F MODIFICATION TITLE: MULTI-FUNCTIONAL INFORMATION DISTRIBUTION SYSTEM (MIDS) (12-99)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: DEPOT LEVEL

ADMINISTRATIVE LEADTIME: 5 Months PRODUCTION LEADTIME: 18 Months

CONTRACT DATES: FY 2003: Mar-03 FY 2004: Mar-04 FY 2005: Mar-05

DELIVERY DATE: FY 2003: Sep-04 FY 2004: Sep-05 FY 2005: Sep-06

(\$ in Millions)

Cost:	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2002 & PY (136) kits	38	4.9	56	5.6	42	4.2	48	4.8												
FY 2003 (48) kits																				
FY 2004 (48) kits																				
FY 2005 (48) kits																				
FY 2006 (48) kits																				
FY 2007 (48) kits																				
FY 2008 (48) kits																				
FY 2009 (0) kits																				
To Complete (0) kits																				
TOTAL	38	4.9	56	5.6	42	4.2	48	4.8												

*Note: DERS funded "A" kit procurement.
Installation Schedule

	FY 2002 & Prior	FY 2003				FY 2004				FY 2005				FY 2006			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	38	13	13	15	15	15	15	6	6	12	12	12	12				
Out	38	13	13	15	15	15	15	6	6	12	12	12	12				

	FY 2007				FY 2008				FY 2009				To Complete	TOTAL
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														

Exhibit P-3a		INDIVIDUAL MODIFICATION																			
MODIFICATION TITLE:		<u>F/A-18C/D/E/F NACES P3I (Navy Aircrew Common Ejection Seat Pre-Planned Product Improvement) (OSIP 20-99)</u>																			
MODELS OF SYSTEM AFFECTED:		<u>F/A-18C/D/E/F NACES EJECTION SEATS</u>								TYPE MODIFICATION: <u>SAFETY</u>											
DESCRIPTION/JUSTIFICATION:		<p>An average of 15 Naval Aircrew fatalities occur each year from in-flight mishaps. Nearly half result from the seat ejecting aircrew into the ground or water at low altitude and adverse attitude. Congressional direction to increase U.S. Navy aircrew anthropometric range to more closely match the general aircrew population. This change will increase anthropometric range from the current 135lbs through 213lbs to 100lbs through 245lbs. The NACES P3I program is divided into three phases of development and upon completion of each phase, existing aircraft seats will be modified with retrofit kits to provide the increased capability to the NACES seat: Phase I - Current technology improvements to increase cockpit accommodation and reduce injury risk for all aircrew. Phase II - Propulsion stability control to reduce the risk of major injury to less than 5% up to 600 knots. Phase III - Stability control and surface avoidance capability for low altitudes, adverse altitudes, and out-of-control ejections.</p>																			
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:		ECP MB6004 was approved 19 May 1999.																			
FINANCIAL PLAN (TOA, \$ in Millions):																					
	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RD&E																					
PROCUREMENT																					
Installation Kits	376	9.9	64	2.5															544	15.5	
Installation Kits N/R		1.5																			1.5
Installation Equipment																					
Installation Equipment N/R																					
Engineering Change Orders																					
Data		0.2																			0.2
Training Equipment	12	0.3																	12	0.3	
Support Equipment		0.2																			0.2
ILS		1.4		0.2																	1.7
Other Support																					
Interim Contractor Support																					
Installation Cost	376	0.3	64	0.1															544	0.7	
TOTAL PROCUREMENT		13.8		2.8																	20.1

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/E/F NACES EJECTION SEATS MODIFICATION TITLE: F/A-18 C/D/E/F NACES P3I (OSIP 20-99)

INSTALLATION INFORMATION: _____

METHOD OF IMPLEMENTATION: Contractor Modification Team

ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 2 Months

CONTRACT DATES: FY 2003: Apr-03 FY 2004: _____ FY 2005: _____ FY 2006: _____

DELIVERY DATE: FY 2003: Jun-03 FY 2004: _____ FY 2005: _____ FY 2006: _____

(\$ in Millions)

Cost:	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2002 & Prior (376) kits	376	0.3																		376	0.3
FY 2003 (64) kits			64	0.1																64	0.1
FY 2004 () kits																					
FY 2005 () kits																					
FY 2006 () kits																					
FY 2007 () kits																					
FY 2008 () kits																					
FY 2009 () kits																					
To Complete (104) kits																				104	0.4
TOTAL	376	0.3	64	0.1																544	0.7

Installation Schedule

	FY 2002 & Prior	FY 2003				FY 2004				FY 2005				FY 2006							
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
In	376	0	0	32	32	0	0	0	0	0	0	0	0								
Out	376	0	0	32	32	0	0	0	0	0	0	0	0								

	FY 2007				FY 2008				FY 2009				To Complete	TOTAL	
	1	2	3	4	1	2	3	4	1	2	3	4			
In															544
Out															544

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** TYPE MODIFICATION: **AVIONICS UPGRADE**

DESCRIPTION/JUSTIFICATION:

This OSIP upgrades USMC F/A-18A/B/Cs (Lots 7-11) to a capability level comparable to a Lot 17 F/A-18C, including both hardware and software capabilities. This requirement is critical to meet the Marine Corps requirements for the Tactical Air Integration Plan. The Avionics Upgrade includes new avionics subsystems already incorporated or in process of being incorporated into USMC and/or FMS F/A-18 aircraft. This ECP incorporates the following subsystems in ECP 583R1: AN/ARC-210(V) with HAVEQUICK II and SINGARS; Digital Communication Systems (DCS) Receiver/Transmitter (RT-1824(C)); Combined Interrogator/Transponder AN/APX-111 (V); Night Vision Display System (NVDS); Mission Computer CP-2360 (XN-8); Radar (AN/APG-73); Stores Management Set (SMS) (AN/AYQ-9); AMRAAM Capability (radar 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. Starting in FY 2007, ECP583R2 will add the following capabilities: MIDS(LVT); Color Displays; JHMCS; ALE-47; TAMMAC; and AMU.

This OSIP also provides for limited integration of the Litening Enhanced Range FLIR on 12 USMC F/A-18Ds. This will allow the Marine Corps to utilize existing Litening pods, currently in the AV-8B inventory, on USMC F/A-18Ds to provide the Air Ground Task Force capability and flexibility in the execution of operations in the combat spectrum.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

While the number of aircraft to be retrofitted in the program of record has not changed, the Marine Corps will now retrofit some early lot F/A-18C/Ds vice only F/A-18As due to greater remaining life on those aircraft. ECP 583 was approved 25 March 1999. ECP 583R1 was approved in August 2001. All the equipment being incorporated in this ECP has completed development. This OSIP includes a \$24.5M Congressional Add in FY 2004

A New Start notification was sent to the Congress in FY 2003 to initiate the Litening integration and procurement of the FY 2004 Installation Kits.

FINANCIAL PLAN (TOA, \$ in Millions):

	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
ECP 583	18	6.0	3	1.1	6	2.4	4	1.6													
ECP 583R1	76	0.3			6	*	4	*													
ECP 583R2																					
Litening					12	2.0															
Installation Kits N/R		0.7		0.7		1.9		0.3													
Installation Equipment		127.9		13.4		37.3		15.5													
Installation Equipment N/R																					
Engineering Change Orders																					
Data		0.3						0.2													
Training		0.5		0.2																	
Other Support (Testing)		1.9		0.2																	
Support Equipment		1.4																			
ILS		5.6		6.3		6.3		2.2													
Interim Contractor Support																					
Installation Cost	30	12.7	16	6.6	18	1.2	3	0.0													
TOTAL PROCUREMENT		157.3		28.4		51.1		19.9													

- 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 scewed by Congressional adds. The 6 installs in FY2004 are funded with FY 2002 Congressional add funding and the 3 installs in FY 2005 are funded with FY 2003 Congressional add funding
 5. Beginning in FY 2009 "Installation Costs" are for installation of ECP 583R2.
 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 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 2003: Mar-03 FY 2004: Jan-04 FY 2005: Jan-05

DELIVERY DATE: FY 2003: Mar-05 FY 2004: Jan-06 FY 2005: Jan-07

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 2003: _____ FY 2004: Feb-04 FY 2005: _____

DELIVERY DATE: FY 2003: _____ FY 2004: Jun-04 FY 2005: _____

(\$ in Millions)

Cost:	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2002 & PY (52) kits ^{1,2}	30	12.7	16	6.6	6	0.0														
FY 2003 (3) kits ³							3	0.0												
FY 2004 (18) kits ⁴					12	1.2														
FY 2005 (4) kits																				
FY 2006 (11) kits																				
FY 2007 (24) kits ⁵																				
FY 2008 (6) kits																				
FY 2009 () kits																				
To Complete (46) kits																				
TOTAL	30	6.0	16	6.6	18	1.2	3	0.0												

Notes:

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

FY 2002 & Prior	FY 2003				FY 2004				FY 2005				FY 2006			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	30	4	4	4	4	0	0	9	9	0	0	2	1			
Out	30	4	4	4	4	0	0	9	9	0	0	2	1			

	FY 2007				FY 2008				FY 2009				To Complete	TOTAL	
	1	2	3	4	1	2	3	4	1	2	3	4			
In															
Out															

Exhibit P-3a **INDIVIDUAL MODIFICATION**

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

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

DESCRIPTION/JUSTIFICATION:

The Joint Helmet-Mounted Cueing System (JHMCS) is a multi-service system that provides United States Air Force (USAF), United States Navy (USN), and United States Marine Corp (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, 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.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

F/A-18E/F JHMCS completed Developmental Testing in August 2001. Operational Test (OPEVAL) began in September 2001 and was completed in April 2002. The FY 2000 APN-5 funding was used for production Non-recurring engineering and tooling. The first F/A-18C/D JHMCS retrofit kits will be procured in FY 2004 and installed in FY 2005. F/A-18E/F retrofit kit procurement begins in **FY 2004**, to be installed in **FY 2005** starting with Lot 23 aircraft.

FINANCIAL PLAN (TOA, \$ in Millions):

	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E		31.3		23.2		24.6		12.7													
PROCUREMENT																					
Installation Kits																					
C/D					36	4.1	54	6.3													
E/F					14	1.6															
Installation Kits N/R		1.8		4.8		0.4															
Installation Equipment																					
C/D					36	8.7	54	13.3													
E/F					14	3.4															
Installation Equipment N/R																					
Engineering Change Orders																					
Data				-		0.1															
Training																					
Support Equipment				0.8		1.4		0.5													
ILS				0.8		3.8		2.1													
Spares																					
Other Support - Testing																					
Installation Cost							50	5.0													
TOTAL PROCUREMENT		1.8		6.4		23.4		27.1													

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than \$50K
3. Unit Cost Increase in FY05 is due to increased costs for procurement of Aft Seat JMCS

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: F/A-18C/D/E/F MODIFICATION TITLE: F/A-18 JOINT HELMET-MOUNTED CUEING SYSTEM (JHMCS) (OSIP 24-00)

INSTALLATION INFORMATION: APPROX 5 KITS INSTALLED EVERY 4 WEEKS

METHOD OF IMPLEMENTATION: FIELD MOD TEAMS

ADMINISTRATIVE LEAD-TIME: 2 Months PRODUCTION LEAD-TIME: 12 Months

CONTRACT DATES: FY 2003: _____ FY 2004: Feb-04 FY 2005: Dec-04

DELIVERY DATE: FY 2003: _____ FY 2004: Feb-05 FY 2005: Dec-05

(\$ in Millions)

Cost:	Prior Years		FY 2003		FY 2004		FY 2005		FY2006		FY2007		FY2008		FY2009		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2002 & PY () kits																					
FY 2003 () kits																					
FY 2004 (50) kits							50	5.0													
FY 2005 (54) kits																					
FY 2006 (72) kits																					
FY 2007 (50) kits																					
FY 2008 (47) kits																					
FY 2009 (52) kits																					
To Complete (273) kits																					
TOTAL							50	5.0													

Installation Schedule

	FY 2002 & Prior	FY 2003				FY 2004				FY 2005				FY2006							
		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	16	17	17								
Out	0	0	0	0	0	0	0	0	0	0	16	17	17								

	FY2007				FY2008				FY2009				To Complete	TOTAL	
	1	2	3	4	1	2	3	4	1	2	3	4			
In															
Out															

INDIVIDUAL MODIFICATION

Exhibit P-3a

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 FLIR (ORD# 437-88-96) 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 is designed to provide a quantum leap in operational effectiveness to fully support the standoff precision strike mission. Improved reliability and maintainability technology will increase operational availability while reducing life cycle costs. This OSIP will also be used to perform efforts to address parts obsolescence and to examine potential ATFLIR-related capability upgrades associated with Network Centric Operations and interoperability requirements.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

ATFLIR development began in FY1997. The E&MD contract was awarded in March, 1998. Preliminary Design Review, Critical Design Review, and TECHEVAL have been completed. OPEVAL testing was completed June 2003 and the OPEVAL report was issued 4 September 2003 to support Full Rate Production decision in October 2003. An FOT&E period is planned in 2004 to test functionality on the F/A-18C/D with OFP 17C.

FINANCIAL PLAN (TOA, \$ in Millions):

	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY2007		FY2008		FY2009		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E		262.5		13.1																	
PROCUREMENT																					
Installation Kits			495	1.5	148	0.7															
Installation Kits N/R																					
Installation Equipment(C/D)	10	36.7	15	43.2	31	78.3	37	84.0													
Installation Equipment(E/F)																					
Installation Equipment N/R		*		30.0																	
Engineering Change Orders																					
Data		1.5		0.7		0.8		1.6													
Training		1.6		1.3		1.4		1.1													
Support Equipment		4.0		3.8		10.8		8.9													
ILS		8.5		5.4		10.2		5.8													
Spares																					
Other Support - Testing						0.2															
Installation Cost					50	0.8	120	1.8													
TOTAL PROCUREMENT		52.4		85.9		103.1		103.2													

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

MODELS OF SYSTEMS AFFECTED: F/A-18A+C/D/E/F MODIFICATION TITLE: ADVANCED TARGETING FORWARD LOOKING INFRARED (ATFLIR) (OSIP 12-01)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: DEPOT LEVEL MODIFICATION USING FIELD MOD TEAMS

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

CONTRACT DATES: FY 2003: Sep-03 FY 2004: Jun-04 FY 2005: _____

DELIVERY DATE: FY 2003: Mar-04 FY 2004: Dec-04 FY 2005: _____

(\$ in Millions)

Cost:	Prior Years		FY 2003		FY 2004		FY 2005		FY2006		FY2007		FY2008		FY2009		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2002 & PY () kits																					
FY 2003 (495) kits					50	0.8	120	1.8													
FY 2004 (148) kits																					
FY 2005 () kits																					
FY 2006 () kits																					
FY 2007 () kits																					
FY 2008 () kits																					
FY 2009 () kits																					
To Complete () kits																					
TOTAL	0	0.0	0	0.0	50	0.8	120	1.8													

Installation Schedule

	FY 2002 & Prior	FY 2003				FY 2004				FY 2005				FY 2006							
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
In	0	0	0	0	0	0	25	30	30	30	30										
Out	0	0	0	0	0	0	25	25	30	30	30	30									

	FY 2007				FY 2008				FY 2009				To Complete	TOTAL	
	1	2	3	4	1	2	3	4	1	2	3	4			
In															
Out															

Exhibit P-3a		INDIVIDUAL MODIFICATION	
MODIFICATION TITLE:	<u>E/F 2000 HR CORRECTION OF DISCREPANCIES (OSIP 19-01)</u>		
MODELS OF SYSTEM AFFECTED:	<u>F/A-18E/F</u>	TYPE MODIFICATION:	<u>SAFETY /RELIABILITY/IMPROVEMENT</u>
DESCRIPTION/JUSTIFICATION:			
<p>Corrections to discrepancies up to 2000 Flight Hours identified during testing and development can sometimes be incorporated into production aircraft, effective with the physical configuration audit which establishes the product baseline of the aircraft. However, when this cannot be done due to time constraints, retrofit of the changes into already delivered aircraft requires funding through the Aircraft Modification Program. Additionally, deficiencies discovered during fleet operations must be corrected. The unacceptable alternative to retrofitting would be multiple configurations in the fleet, which will create maintenance and supply problems, and in many cases the mission capability of the aircraft would be adversely affected as well as reduced service life. Corrections to the following items/conditions are required to meet transition plan and achieve planned life limits of I.RIP 1-3 and FRP 1 and 2 aircraft:</p>			
<p>TEF, ALL & AIL Shroud Hinges, (ECP-6035 PT1) Drag Angle, (ECP-6136) Idle Hinge, NLG R/H Forward Door, (ECP-6032) Strut Door Attach Former @ Y520, (ECP-6057) Drive Hinge, NLG R/H Forward Door, (ECP-6137) Y541 Fitting Repair Crack, (ECP-6111) ECS Primary Heat Exchanger, (ECP-6078) LEX Diverter Apex Fitting @ Y383, (ECP-6041) MLG Sidebrace Pin, (ECP-6099) Heat Exchanger Cover (Door 55) Hole Wear, (ECP-6086) Outer Wing Substructure, Hinge kit & Wing Torque Box kit, (ECP-6035 PT2) Ecology Tank Flange Changes, (ECP-6100) Center Keel Intercaster @ Y627, (ECP-6092) Fuel Floor Support Angle @ Y470, (ECP-6128) Inlet Duct Stiffener, (ECP-6094) Keel Access Cover @ Y631-Y645, (ECP-6118) Upper Keel Web Stringer @ Y659, (ECP-6067) Keel Web Fittings Aft of Y472, (ECP-6127) Visual Identification System, (ECP-6052) AOA/PITOT Probe Circuitry Change & Boarding Ladder/Canopy Switch, (ECP-6165) Keel Web, (ECP-XXX7)</p>	<p>Replace hinges on trailing edge flap, aileron and aileron shroud with redesigned hinges to prevent potential departure of flight control surfaces in flight. Install redesigned wing drag angle to correct acoustic vibration related fatigue failures. Retrofit redesigned hinge to restore component to its original specification. Replace with redesigned hinge and clevis, and install bushing into Y520 former to restore component to its original specification. Incorporate redesigned drive hinge to prevent potential departure of component in flight. Splice redesigned lower appendage area into Y541 former to restore component to original specification. Replace noncompliant heat exchanger with redesigned full life component and new ECS duct. Retrofit with redesigned apex fitting to restore component to its original specification. Fit MLG with redesigned pin to prevent possible collapse of MLG during arrestments. Retrofit fasteners with steel bushings to prevent distribution of stress into fuselage components. Remove noncompliant TEF and aileron hinges on wing torque box and replace with full life hinges. Incorporate redesigned ecology tank and modify mount on the door to prevent tank separation. Replace component to restore aircraft to original structural integrity. Add titanium bathtub fittings and replace fuel floor to increase fuel floor land area. Remove & replace with new design Inlet Duct Stiffener to correct design deficiency. Replace Keel Web with redesigned component to conform to original aircraft specification. Install doublers to restore component to its original service life. Install doublers to restore component to its original service life. Provide Pattern Strobe Light System and Circuit Logic Change cues to distinguish E/F from C/D at night. 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. Replace Keel Web with redesigned component to conform to original aircraft specification.</p>		
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:			
<p>Each change has been or will be tested prior to installation in the F/A-18. Some ECPs are "O" Level Installs</p>			

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: E/F 2000 HR CORRECTION OF DISCREPANCIES (OSIP 19-01)

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

FINANCIAL PLAN (TOA, \$ in Millions):

	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
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	12	*	62	0.2	36	0.1	25	0.1													
ECP 6111 / Y541 Fitting Repair Crack	72	2.8	7	0.3																	
ECP 6078 / ECS Primary Heat Exchanger					48	4.9	8	0.8													
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	38	0.6	62	3.1																	
ECP 6100 / Ecology Tank Flange Changes	27	0.4																			
ECP 6092 / Center Keel Intercaster @Y627	12	0.2																			
ECP 6128 / Fuel Floor Support Angle@Y470	36	0.4	36	0.4	19	0.2															
ECP 6094 / Inlet Dust Stiffener	9	0.1																			
ECP 6118 / Keel Access Cover @Y631-Y645			62	0.6	36	0.3	30	0.3													
ECP 6067 / Upper Keel Web Stringer @Y659	12	0.1	34	0.3																	
ECP 6127 / Keel Web Fitting Aft @Y472	36	0.4	36	0.4	7	0.1															
ECP 6052 / Visual Identification System			32	2.1																	
ECP 6165 /AOA PITOT Probe Circuitry Change & Boarding Ladder/Canopy Switch	72	0.1			36	*	27	*													
ECP XXX7 / Keel Web							30	0.2													
Installation Kits N/R		8.4		6.4		1.0		0.3													
Installation Equipment																					
Installation Equipment N/R																					
Engineering Change Orders																					
Data		0.5		0.4		0.2		*													
Training Equipment																					
Support Equipment																					
ILS		0.9		0.7		0.6		0.5													
Other Support																					
Interim Contractor Support																					
Installation Cost	24	0.2	89	0.8	186	3.2	360	3.9													
TOTAL PROCUREMENT		19.3		15.7		10.7		6.2													

- Notes:
- Total may not add due to rounding.
 - Asterisk indicates amount less than \$50K
 - Procurement unit cost for ECP 6035PT2 is dependent of Lot of aircraft being retrofitted due to multiple Technical Directives.
 - Update required based on FY02 magr procurement \$2,548K from OSIP 19-01.

Exhibit P-3a		INDIVIDUAL MODIFICATION																			
MODIFICATION TITLE:		F/A-18C/D DIGITAL WINGTIP MOD FOR AIM-9X COMPATIBILITY (OSIP 05-02)																			
MODELS OF SYSTEM AFFECTED:		F/A-18C/D							TYPE MODIFICATION:							CAPABILITY UPGRADE					
DESCRIPTION/JUSTIFICATION:																					
<p>The AIM-9X Joint Operation Document (JORD), ORD# USN-CAF (USAF 001-93)-IIA, requires a highly expanded off-boresight targeting capability that presently cannot be achieved with the current AIM-9M analog interface signal set. The JORD also requires the missile to communicate with the aircraft through a digital interface. The F/A-18 currently has a tailored MIL-STD-1760 interface on stations 2 through 8. Modifications to the outer wing panel and LAU-7 launcher can provide full digital capability to the wingtip and can support full AIM-9X capability. The current launcher support equipment (AWM-100) must also be modified to support/test this digital wingtip capability. AWM-100 are "O" level installations.</p>																					
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:																					
<p>The AIM-9X missile is on contract for LRIP 1, 2 and 3 deliveries, with the LRIP 1 delivery complete. Operational test shots have been completed and an end of test message was issued in August 2003. The AIM-9X program Milestone III (FRP) is scheduled for the 2nd quarter of FY 2004.</p>																					
FINANCIAL PLAN (TOA, \$ in Millions):																					
	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY2007		FY2008		FY2009		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
F/A-18 Digital Wingtip Kits	88	0.1	82	0.1	42	0.1	25	*													
Installation Kits N/R	2	0.3		*		*		*													
Installation Equipment																					
Installation Equipment N/R																					
Engineering Change Orders																					
Data		0.4																			
Training																					
Support Equipment		0.7		*		*		*													
ILS		*		*		*		*													
Spares																					
Other Support - Testing																					
Installation Cost			88	0.5	82	0.5	42	0.3													
TOTAL PROCUREMENT		1.6		0.8		0.6		0.3													
Notes:																					
1. Totals may not add due to rounding																					
2. Asterisk indicates amount less than \$50K																					

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: 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 2003: Dec-02 FY 2004: Dec-03 FY 2005: Dec-04

DELIVERY DATE: FY 2003: Dec-03 FY 2004: Dec-04 FY 2005: Dec-05

(\$ in Millions)

Cost:	Prior Years		FY 2003		FY 2004		FY 2005		FY2006		FY2007		FY2008		FY2009		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2002 & PY (88) kits			88	0.5																	
FY 2003 (82) kits					82	0.5															
FY 2004 (42) kits							42	0.3													
FY 2005 (25) kits																					
FY 2006 (29) kits																					
FY 2007 (4) kits																					
FY 2008 (65) kits																					
FY 2009 (20) kits																					
To Complete (45) kits																					
TOTAL			88	0.5	82	0.5	42	0.3													

Installation Schedule

	FY 2002 & Prior	FY 2003				FY 2004				FY 2005				FY2006							
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
In	0	18	19	19	32	18	22	22	20	10	10	11	11								
Out	0	18	19	19	32	18	22	22	20	10	10	11	11								

	FY2007				FY2008				FY2009				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 2003		FY 2004		FY 2005		FY 2006		FY2007		FY2008		FY2009		to Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
Installation Kits N/R																					
Installation Equipment																					
Installation Equipment N/R																					
Engineering Change Orders																					
Data																					
Training		4.8		37.4				13.9													
Support Equipment																					
ILS																					
Spares																					
Other Support - Testing																					
Installation Cost																					
TOTAL PROCUREMENT		4.8		37.4				13.9													
Notes:																					
1. Totals may not add due to rounding																					
2. Asterisk indicates amount less than \$50K																					

Exhibit P-3a	INDIVIDUAL MODIFICATION										
MODIFICATION TITLE:	Fast Tactical Imagery II (OSIP 15-02) FTI	TYPE MODIFICATION: CAPABILITY IMPROVEMENT									
MODELS OF SYSTEM AFFECTED:	F/A-18C/DE/F										
DESCRIPTION/JUSTIFICATION:											
<p>FTI provides the aircrew the capability to link video imagery and targeting coordinates from aircraft to aircraft at limited cost. This capability is currently being used by the F-14 to transmit critical targeting imagery and coordinates from aircraft to aircraft. This Congressionally added funding would be used to fully qualify the FTI capability on the F/A-18, and to provide this critical warfighting capability to the Fleet as F-14s are being retired from carriers. The Fleet completed a successful demonstration of the FTI capability on the F/A-18C aircraft last year, and thus, this effort is considered low risk.</p> <p>Tactical imagery continues to be critical to ongoing conflicts. FTI provides the capability to transmit this imagery from aircraft to aircraft, or to a ground receiving station. This allows quick and easy dissemination of imagery to aircraft or ground station after it is collected. This also provides the fleet the capability to target mobile targets. Without FTI on F/A-18 aircraft, the Battle Group Commander lost this critical capability in FY03 when F-14s left the Fleet. As such, his ability to transmit and disseminate imagery, and to target mobile targets were severely diminished. A fiscal year 2004 Congressional Add for \$1.0M provides for procurement and installation for one (1) F/A-18 squadron.</p>											
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:											
Deliver Preproduction Units(3) Sep 30 2002 Complete Carrier Qual Testing Dec 30 2002											
FINANCIAL PLAN (TOA, \$ in Millions):											
	Prior Years	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E (0204138N/E2065)											
PROCUREMENT											
Installation Kits	3	2.1			12	0.4				15	2.5
Installation Kits N/R											
Installation Equipment											
Installation Kits N/R											
Installation Equipment N/R											
Engineering Change Orders					0.1						0.1
Data											
Training Equipment											
Support Equipment					0.1						0.1
ILS					0.2						0.2
Other Support		0.4			*						0.4
Interim Contractor Support											
Installation Cost			12	0.2						12	0.2
TOTAL PROCUREMENT		2.5			1.0						3.5
Notes:											
1. Totals may not add due to rounding											
2. Asterisk indicates amount less than \$50K											
3. FY04 installs are funded with FY 2004 Congressional Add funding.											

Exhibit P-3a		INDIVIDUAL MODIFICATION
MODIFICATION TITLE:	E/F 4000 HR CORRECTION OF DISCREPANCIES (OSIP 12-03)	
MODELS OF SYSTEM AFFECTED:	F/A-18E/F	TYPE MODIFICATION: SAFETY /RELIABILITY/IMPROVEMENT
DESCRIPTION/JUSTIFICATION:		
<p>Corrections to discrepancies up to 4000 Flight Hours identified during testing and development can sometimes be incorporated into production aircraft, effective with the physical configuration audit which establishes the product baseline of the aircraft. However, when this cannot be done due to time constraints, retrofit of the changes into already delivered aircraft requires funding through the Aircraft Modification Program. Additionally, deficiencies discovered during fleet operations must be corrected. The unacceptable alternative to retrofiting would be multiple configurations in the fleet, which will create maintenance and supply problems, and in many cases the mission capability of the aircraft would be adversely affected as well as reduced service life. Corrections to the following items/conditions are required to meet transition plan and achieve planned life limits of LRIP II / III and FRP I/II aircraft</p>		
<p>LEX Cracks Redesign, (ECP-6126) Bootstrap at Several Locations (After Interim Fix), (ECP-6029) Dorsal Cover (Door 40) Hole Elongation, (ECP-6085) Door 317 Hole Elongation, (ECP-6120) Side Longeron Web @ Y510 (ECP-6129) Aft Fuselage Inboard Former Crack @ Y618, (ECP-6135) LEX Doors – Upper Center & Aft, (ECP-6009) Lower Outboard Longeron @ Y555, (ECP-6141) Inlet Duct Stiffener @ Y568, (ECP-6143) Y472.5 Bkfd Fatigue Crks @ MLG Trunion, (ECP-6157) Missile Launcher Bay Clost Out Web, (ECP-6142) Lower Outboard Longeron Cracks, (ECP-6138)</p>	<p>Replace 50% of intermediate Spar; add bathtub fittings 4 locations; replace rib to restore aircraft to design life Replace bootstrap and Y645 Outboard Former with redesigned components to meet specification life Incorporate redesigned door to prevent potential departure of component in flight Incorporate redesigned door to prevent potential departure of component in flight Remove and replace Longeron Web with thicker web to restore component to its original specification. Replace stringer, upper / lower keel webs and stiffener to restore aircraft to original structural integrity Install door with thicker lands and thicker hat stiffeners end to correct acoustic vibration related fatigue Cold work nutplate holes and add clip to correct design deficiency Installation of a structural clip to the shroud in order to prevent buckling Blend bulkhead to prevent distribution of stress into components. (Installation costs only) Install doublers to restore component to its original service life Brings structure back to original specification by adding a doubler to the structure</p>	
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:		
<p>Each change has been or will be tested prior to installation in the F/A-18. Some ECPs are "O" Level Installs</p>		

Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL	
		Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RD&E																			
PROCUREMENT																			
Installation Kits																			
			62	2.1	34	0.5													
					4	0.7	10	1.8											
			36	1.6	17	0.8													
			62	1.4	17	0.4													
			62	-	25	-													
			62	0.3	36	0.1	30	0.1											
			32	0.5															
					36	0.2	36	0.2											
			62	-	36	0.0	30	-											
					36	0.2	36	0.2											
			62	-															
				2.3	1.6	1.0													
Installation Equipment																			
Installation Equipment N/R																			
Engineering Change Orders																			
				0.6	-	0.1													
Training Equipment																			
Support Equipment																			
				0.1	0.9	0.6													
Other Support																			
Interim Contractor Support																			
					81	1.0	488	6.1											
				8.9	6.4	10.2													
TOTAL PROCUREMENT																			

Notes:

- Totals may not add due to rounding.
- Asterisk indicates amount less than \$50K.
- 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.
- ECP 6126 includes multiple airframe changes with different pricing dependent on aircraft Lot.

Exhibit P-3a		INDIVIDUAL MODIFICATION		
MODIFICATION TITLE:	<u>E/F 6000 HR CORRECTION OF DISCREPANCIES (OSIP 13-03)</u>			
MODELS OF SYSTEM AFFECTED:	<u>F/A-18E/F</u>	TYPE MODIFICATION: <u>SAFETY /RELIABILITY/IMPROVEMENT</u>		
DESCRIPTION/JUSTIFICATION:				
<p>Corrections to discrepancies up to 6000 FHs identified during testing and development can sometimes be incorporated into production aircraft, effective with the physical configuration audit which establishes the product baseline of the aircraft. However, when this cannot be done due to time constraints, retrofit of the changes into already delivered aircraft requires funding through the Aircraft Modification Program. Additionally, deficiencies discovered during fleet operations must be corrected. The unacceptable alternative to retrofiting would be multiple configurations in the fleet, which will create maintenance and supply problems, and in many cases the mission capability of the aircraft would be adversely affected as well as reduced service life. Corrections to the following items/conditions are required to meet transition plan and achieve planned life limits of LRIP II III and FRP I / II aircraft:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top; padding: 2px;"> <p>Y577 Frame Flange @ Door 55, <u>(ECP-6154)</u> 12K SFH Y461 Clip Crack, <u>(ECP-6144)</u> Y591 Bulkhead Stiffener Fillet Crack, <u>(ECP-6160)</u> Keel Longerons @ Y555 Former, <u>(ECP-6117)</u> Outboard Longerons Splice Fasteners @ Y591, <u>(ECP-6119)</u> Upper Outboard Longerons @ Y631, <u>(ECP-6124)</u> Nacelle Skin Failed Fastener @ Y694, <u>(ECP-6107)</u> Y679 Former Fasteners, <u>(ECP-6123)</u> Y604 UOB Long, <u>(ECP-6134)</u> Missile Beam Web, Aft of Y541, <u>(ECP-6132)</u></p> </td> <td style="width: 50%; vertical-align: top; padding: 2px;"> <p>Add bathtub fitting to restore aircraft to original structural integrity Replace fatigued clip with a redesigned clip to meet design life Add nested fitting to restore aircraft to original structural integrity Add structural backup to former to meet specification life Remove and replace splice fitting and fasteners to restore aircraft to original structural integrity Remove and replace hi-lok fastener to restore aircraft to original structural integrity Replace fastener with oversize fastener to correct design deficiency Replace with new material fastener to restore aircraft to original structural integrity Blend away material from downstanding leg to prevent distribution of stress Add doubler to restore component to its original service life</p> </td> </tr> </table>			<p>Y577 Frame Flange @ Door 55, <u>(ECP-6154)</u> 12K SFH Y461 Clip Crack, <u>(ECP-6144)</u> Y591 Bulkhead Stiffener Fillet Crack, <u>(ECP-6160)</u> Keel Longerons @ Y555 Former, <u>(ECP-6117)</u> Outboard Longerons Splice Fasteners @ Y591, <u>(ECP-6119)</u> Upper Outboard Longerons @ Y631, <u>(ECP-6124)</u> Nacelle Skin Failed Fastener @ Y694, <u>(ECP-6107)</u> Y679 Former Fasteners, <u>(ECP-6123)</u> Y604 UOB Long, <u>(ECP-6134)</u> Missile Beam Web, Aft of Y541, <u>(ECP-6132)</u></p>	<p>Add bathtub fitting to restore aircraft to original structural integrity Replace fatigued clip with a redesigned clip to meet design life Add nested fitting to restore aircraft to original structural integrity Add structural backup to former to meet specification life Remove and replace splice fitting and fasteners to restore aircraft to original structural integrity Remove and replace hi-lok fastener to restore aircraft to original structural integrity Replace fastener with oversize fastener to correct design deficiency Replace with new material fastener to restore aircraft to original structural integrity Blend away material from downstanding leg to prevent distribution of stress Add doubler to restore component to its original service life</p>
<p>Y577 Frame Flange @ Door 55, <u>(ECP-6154)</u> 12K SFH Y461 Clip Crack, <u>(ECP-6144)</u> Y591 Bulkhead Stiffener Fillet Crack, <u>(ECP-6160)</u> Keel Longerons @ Y555 Former, <u>(ECP-6117)</u> Outboard Longerons Splice Fasteners @ Y591, <u>(ECP-6119)</u> Upper Outboard Longerons @ Y631, <u>(ECP-6124)</u> Nacelle Skin Failed Fastener @ Y694, <u>(ECP-6107)</u> Y679 Former Fasteners, <u>(ECP-6123)</u> Y604 UOB Long, <u>(ECP-6134)</u> Missile Beam Web, Aft of Y541, <u>(ECP-6132)</u></p>	<p>Add bathtub fitting to restore aircraft to original structural integrity Replace fatigued clip with a redesigned clip to meet design life Add nested fitting to restore aircraft to original structural integrity Add structural backup to former to meet specification life Remove and replace splice fitting and fasteners to restore aircraft to original structural integrity Remove and replace hi-lok fastener to restore aircraft to original structural integrity Replace fastener with oversize fastener to correct design deficiency Replace with new material fastener to restore aircraft to original structural integrity Blend away material from downstanding leg to prevent distribution of stress Add doubler to restore component to its original service life</p>			
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:				
Each change has been or will be tested prior to installation in the F/A-18.				

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: **E/F 6000 HR CORRECTION OF DISCREPANCIES (OSIP 13-03)**

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

FINANCIAL PLAN (TOA, \$ in Millions):

	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
ECP 6154 / Y577 Frame Finge @ Door 55			62	*	36	*	19	*													
ECP 6144 / 12K SFH Y461 Clip Crack			62	0.1	36	0.1	30	0.1													
ECP 6160 / Y591 Bulkhead Stiffner Fillet Crack			62	0.2	36	0.1	30	0.1													
ECP 6117 / Keel Longerons @Y555 Former					36	0.4	36	0.4													
ECP 6119 / Outboard Longeron Splice Fasteners @ Y591																					
ECP 6124 / Upper Outboard Longeron @Y631					28	0.2															
ECP 6107 / Nacelle Skin Failed Fastener @Y694			36	*	11	0.0															
ECP 6123 / Y679 Former Fasteners			63	*																	
ECP 6134 / Y604 UOB Long					36	0.3	36	0.3													
ECP 6132 / Missile Beam Web, Afrt @Y541			36	0.2	36	0.3	26	0.2													
Installation Kits N/R				0.9		0.6		0.1													
Installation Equipment																					
Installation Equipment N/R																					
Engineering Change Orders																					
Data				0.3		*		*													
Training Equipment																					
Support Equipment																					
ILS				0.1		0.6		0.5													
Other Support																					
Interim Contractor Support																					
Installation Cost					54	0.4	423	3.2													
TOTAL PROCUREMENT				1.8		3.1		4.9													

- Notes:
- Total may not add due to rounding.
 - Asterisk indicates amount less than \$50K
 - "Installation Kit" procurement quantity exceeds "Installation" quantity due to 20 Validation/Verification kits.

Exhibit P-3a	INDIVIDUAL MODIFICATION			
MODIFICATION TITLE:	<u>E/F CORRECTION OF OPERATIONAL DISCREPANCIES (OSIP 14-03)</u>			
MODELS OF SYSTEM AFFECTED:	<u>F/A-18E/F</u>	TYPE MODIFICATION: <u>SAFETY /RELIABILITY/IMPROVEMENT</u>		
<p>DESCRIPTION/JUSTIFICATION:</p> <p>Corrections to operational discrepancies identified can sometimes be incorporated into production aircraft, effective with the physical configuration audit which establishes the product baseline of the aircraft. However, when this cannot be done due to time constraints, retrofit of the changes into already delivered aircraft requires funding through the Aircraft Modification Program. Additionally, deficiencies discovered during fleet operations must be corrected. The unacceptable alternative to retrofiting would be multiple configurations in the fleet, which will create maintenance and supply problems, and in many cases the mission capability of the aircraft would be adversely affected as well as reduced service life. Corrections to the following items/conditions are required to meet transition plan and achieve planned life limits of LRIP II / III and FRP I / II aircraft:</p> <table style="width: 100%; border: none;"> <tr> <td style="vertical-align: top; width: 50%;"> <ul style="list-style-type: none"> ECS Exhaust Overtemp Final Fix/Bard Stacks, (ECP-6106R1) Aft ECS Cooling Fan, (ECP-6114) FCC Processor Upgrade, (ECP-6002) MLG Door Bushing Migration, (ECP-6104) AFT Fuselage Outbd Former Fwd Flange @ Y645, (ECP-6088) MLG Trunnion Bearing Loose Retention Nut, (ECP-6194) Long Stick Position, (ECP-XXX2) SKIN 12 Stiffener Back-up Structure, (ECP-6171) AFT Fan Shutoff Valve, (ECP-XXX5) Radar Altimeter Antenna Radome Delineation, (ECP-XXX8) Leading Edge Extension (LEX) Lower Surface/Structure Cracks Redesign, (ECP-6193) MLG Outboard Tire Door Clevis, (ECP-6145) FT50 Y436 Inlet Former, (ECP-6188) FT50 teardown Keel Failure, (ECP-XX11) FT50 Teardown Bulkhead Cracking, (ECP-XX12) FT-50 Failure of Upper Wing Skin Splice Plate, (ECP-6183) DOOR 49 Replacement, (ECP-6098) Horizontal Actuator Cover-Door 71, (ECP-6068) MLG R/H Upper Planing Link Attach Fitting Failure, (ECP-6196) LEX Vent Mechanism Support Assembly Rod End Clevis Failure, (ECP-XXX3) LDS Fuel Wash Filter, (ECP-XX16) ECS Ejector Cracks, (ECP-XX17) MLG Door Uplock, (ECP-XX18) Cockpit Pressure Warning System (CPWS), (ECP-XX19) DOORS 315 & 316 Elongation, (ECP-XX20) HOL Follow-On Upgrades Lot 25 & Up, (ECP-XX21) 18E Follow-On Upgrades Lot 24 & Below, (ECP-XX22) MLG Proximity Switches & Sidebrace Down lock Mechanism, (ECP-6076) </td> <td style="vertical-align: top; width: 50%;"> <ul style="list-style-type: none"> Modifies current exhaust ducts in order to reduce skin and structural temperatures caused by the ECS exhaust plume Strengthens ECS cooling fan to prevent and contain fan failures Replace existing FCC processor with upgraded higher order processors Improved bushing retention for MLG Door hinge attach points Repair former by adding a doubler to bring it back to original specification Replacing bearing retention nut with an improved retention nut Incorporation of improved retention mechanism in position sensor Strengthen the Centerline Structure to meet 2000 catapult requirement Modify the Aft Fan with an Improved Shut-Off Valve Drill hole in door to allow escape of moisture accumulation in order to prevent corrosion of the antenna Modifies LEX structure to prevent cracks induced from aerodynamic loads Redesign clevis to eliminate cracking imparted during gear cycling Introduces strengthened design to prevent cracking Modifies Keel To Prevent Future Cracking Modifies bulkhead to prevent cracking discovered during FT50 testing Redesigned Upper Wing Skin Splice Plate to address failures observed during fatigue testing Replace Door 49 for holes found elongated beyond spec. Improved fasteners to prevent deformation introduced by flight loads Redesign existing planing link attach fittings Redesign and strengthen door actuator Redesign wash filter to prevent passages from becoming clogged and causing loss of cooling efficiency; impacting LCS, Hydraulic, and AMAD life- due to higher operating temps. Modify ECS ejector to prevent cracks from being induced Improves Uplock ability to overcome increased loads due to MLG Door icing Provides a warning system to identify a possible insidious cabin pressure loss that could result in crew hypoxia and possible A/C loss Reduces the potential for hole elongation on doors 315 & 316. Mission Computer BIT performance upgrades & enhancements for aircraft with Higher Order Language (HOL) Mission Computer BIT performance upgrades & enhancements for aircraft without Higher Order Language (HOL) Modify down lock actuator assembly, jury link; replace lock plate & proximity switches </td> </tr> </table>			<ul style="list-style-type: none"> ECS Exhaust Overtemp Final Fix/Bard Stacks, (ECP-6106R1) Aft ECS Cooling Fan, (ECP-6114) FCC Processor Upgrade, (ECP-6002) MLG Door Bushing Migration, (ECP-6104) AFT Fuselage Outbd Former Fwd Flange @ Y645, (ECP-6088) MLG Trunnion Bearing Loose Retention Nut, (ECP-6194) Long Stick Position, (ECP-XXX2) SKIN 12 Stiffener Back-up Structure, (ECP-6171) AFT Fan Shutoff Valve, (ECP-XXX5) Radar Altimeter Antenna Radome Delineation, (ECP-XXX8) Leading Edge Extension (LEX) Lower Surface/Structure Cracks Redesign, (ECP-6193) MLG Outboard Tire Door Clevis, (ECP-6145) FT50 Y436 Inlet Former, (ECP-6188) FT50 teardown Keel Failure, (ECP-XX11) FT50 Teardown Bulkhead Cracking, (ECP-XX12) FT-50 Failure of Upper Wing Skin Splice Plate, (ECP-6183) DOOR 49 Replacement, (ECP-6098) Horizontal Actuator Cover-Door 71, (ECP-6068) MLG R/H Upper Planing Link Attach Fitting Failure, (ECP-6196) LEX Vent Mechanism Support Assembly Rod End Clevis Failure, (ECP-XXX3) LDS Fuel Wash Filter, (ECP-XX16) ECS Ejector Cracks, (ECP-XX17) MLG Door Uplock, (ECP-XX18) Cockpit Pressure Warning System (CPWS), (ECP-XX19) DOORS 315 & 316 Elongation, (ECP-XX20) HOL Follow-On Upgrades Lot 25 & Up, (ECP-XX21) 18E Follow-On Upgrades Lot 24 & Below, (ECP-XX22) MLG Proximity Switches & Sidebrace Down lock Mechanism, (ECP-6076) 	<ul style="list-style-type: none"> Modifies current exhaust ducts in order to reduce skin and structural temperatures caused by the ECS exhaust plume Strengthens ECS cooling fan to prevent and contain fan failures Replace existing FCC processor with upgraded higher order processors Improved bushing retention for MLG Door hinge attach points Repair former by adding a doubler to bring it back to original specification Replacing bearing retention nut with an improved retention nut Incorporation of improved retention mechanism in position sensor Strengthen the Centerline Structure to meet 2000 catapult requirement Modify the Aft Fan with an Improved Shut-Off Valve Drill hole in door to allow escape of moisture accumulation in order to prevent corrosion of the antenna Modifies LEX structure to prevent cracks induced from aerodynamic loads Redesign clevis to eliminate cracking imparted during gear cycling Introduces strengthened design to prevent cracking Modifies Keel To Prevent Future Cracking Modifies bulkhead to prevent cracking discovered during FT50 testing Redesigned Upper Wing Skin Splice Plate to address failures observed during fatigue testing Replace Door 49 for holes found elongated beyond spec. Improved fasteners to prevent deformation introduced by flight loads Redesign existing planing link attach fittings Redesign and strengthen door actuator Redesign wash filter to prevent passages from becoming clogged and causing loss of cooling efficiency; impacting LCS, Hydraulic, and AMAD life- due to higher operating temps. Modify ECS ejector to prevent cracks from being induced Improves Uplock ability to overcome increased loads due to MLG Door icing Provides a warning system to identify a possible insidious cabin pressure loss that could result in crew hypoxia and possible A/C loss Reduces the potential for hole elongation on doors 315 & 316. Mission Computer BIT performance upgrades & enhancements for aircraft with Higher Order Language (HOL) Mission Computer BIT performance upgrades & enhancements for aircraft without Higher Order Language (HOL) Modify down lock actuator assembly, jury link; replace lock plate & proximity switches
<ul style="list-style-type: none"> ECS Exhaust Overtemp Final Fix/Bard Stacks, (ECP-6106R1) Aft ECS Cooling Fan, (ECP-6114) FCC Processor Upgrade, (ECP-6002) MLG Door Bushing Migration, (ECP-6104) AFT Fuselage Outbd Former Fwd Flange @ Y645, (ECP-6088) MLG Trunnion Bearing Loose Retention Nut, (ECP-6194) Long Stick Position, (ECP-XXX2) SKIN 12 Stiffener Back-up Structure, (ECP-6171) AFT Fan Shutoff Valve, (ECP-XXX5) Radar Altimeter Antenna Radome Delineation, (ECP-XXX8) Leading Edge Extension (LEX) Lower Surface/Structure Cracks Redesign, (ECP-6193) MLG Outboard Tire Door Clevis, (ECP-6145) FT50 Y436 Inlet Former, (ECP-6188) FT50 teardown Keel Failure, (ECP-XX11) FT50 Teardown Bulkhead Cracking, (ECP-XX12) FT-50 Failure of Upper Wing Skin Splice Plate, (ECP-6183) DOOR 49 Replacement, (ECP-6098) Horizontal Actuator Cover-Door 71, (ECP-6068) MLG R/H Upper Planing Link Attach Fitting Failure, (ECP-6196) LEX Vent Mechanism Support Assembly Rod End Clevis Failure, (ECP-XXX3) LDS Fuel Wash Filter, (ECP-XX16) ECS Ejector Cracks, (ECP-XX17) MLG Door Uplock, (ECP-XX18) Cockpit Pressure Warning System (CPWS), (ECP-XX19) DOORS 315 & 316 Elongation, (ECP-XX20) HOL Follow-On Upgrades Lot 25 & Up, (ECP-XX21) 18E Follow-On Upgrades Lot 24 & Below, (ECP-XX22) MLG Proximity Switches & Sidebrace Down lock Mechanism, (ECP-6076) 	<ul style="list-style-type: none"> Modifies current exhaust ducts in order to reduce skin and structural temperatures caused by the ECS exhaust plume Strengthens ECS cooling fan to prevent and contain fan failures Replace existing FCC processor with upgraded higher order processors Improved bushing retention for MLG Door hinge attach points Repair former by adding a doubler to bring it back to original specification Replacing bearing retention nut with an improved retention nut Incorporation of improved retention mechanism in position sensor Strengthen the Centerline Structure to meet 2000 catapult requirement Modify the Aft Fan with an Improved Shut-Off Valve Drill hole in door to allow escape of moisture accumulation in order to prevent corrosion of the antenna Modifies LEX structure to prevent cracks induced from aerodynamic loads Redesign clevis to eliminate cracking imparted during gear cycling Introduces strengthened design to prevent cracking Modifies Keel To Prevent Future Cracking Modifies bulkhead to prevent cracking discovered during FT50 testing Redesigned Upper Wing Skin Splice Plate to address failures observed during fatigue testing Replace Door 49 for holes found elongated beyond spec. Improved fasteners to prevent deformation introduced by flight loads Redesign existing planing link attach fittings Redesign and strengthen door actuator Redesign wash filter to prevent passages from becoming clogged and causing loss of cooling efficiency; impacting LCS, Hydraulic, and AMAD life- due to higher operating temps. Modify ECS ejector to prevent cracks from being induced Improves Uplock ability to overcome increased loads due to MLG Door icing Provides a warning system to identify a possible insidious cabin pressure loss that could result in crew hypoxia and possible A/C loss Reduces the potential for hole elongation on doors 315 & 316. Mission Computer BIT performance upgrades & enhancements for aircraft with Higher Order Language (HOL) Mission Computer BIT performance upgrades & enhancements for aircraft without Higher Order Language (HOL) Modify down lock actuator assembly, jury link; replace lock plate & proximity switches 			
<p>DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:</p> <p>Each change has been or will be tested prior to installation in the F/A-18. Some ECPs are "O" Level Installs</p>				

Exhibit P-3a **INDIVIDUAL MODIFICATION**

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

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

FINANCIAL PLAN (TOA, \$ in Millions):

	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits																					
ECP 6106R1 / Exhaust Overtemp Final Fix/Bard Stacks			74	4.7	36	2.3	30	2.0													
ECP 6114 / Aft ECS Cooling Fan			12	0.1																	
ECP 6002 / FCC Processor Upgrade			28	1.3																	
ECP 6104 / MLG Door Bushing Migration			32	0.2																	
ECP 6088 / Aft Fuselage Outboard Former Fwd Flange @Y645					12	0.2															
ECP 6194 / MLG Trunnion Bearing Loose Retention Nut					36	0.4	30	0.3													
ECP XXX2 / Long Stick Position Tx					13	0.1															
ECP 6171 / Skin 12 Stiffner Back-up Structure			54	0.1																	
ECP-XXX5 / Aft Fan Shutoff Valve							30	*													
ECP XXX8 / Radar Altimeter Antenna Radome Delimitation							30	0.6													
ECP 6193 Leading Edge Ext (LEX) Lower Surface/Structure Cracks Redesign					36	2.4	17	1.2													
ECP 6145 / MLG Outboard Tire Door Clevis					36	1.0	30	0.9													
ECP 6188 / Y436 Inlet Former					36	0.1	30	0.1													
ECP XX11 / FT50 Teardown Keel Failure					36	0.9	30	0.8													
ECP XX12 / FT50 Teardown Bulkhead Cracking					36	0.4	30	0.3													
ECP 6183 / FT50 Failure of Upper Wing Skin Splice Plate							30	0.1													
ECP 6098 / DOOR 49 Replacement							12	1.6													
ECP 6068 / Horizontal Actuator Vocer Door 71					62	3.9															
ECP 6196 / MLG R/H Upper Planing Link Attach Fitting Failure							30	0.2													
ECP XXX3 / LEX Vent Mechanism Support Assembly Rod end Clevis Failure					13	0.1	30	0.2													
ECP XX16 / LDS Fuel Wash Filter							30	0.2													
ECP XX17 / ECS Ejector Cracks							30	0.1													
ECP XX18 / MLG Door Uplock							30	0.1													
ECP XX19 / Cockpit Pressure Warning System (CPWS)							30	0.1													
ECP XX20 / DOORS 315 & 316 Elongation							30	*													
ECP XX21 / HOL Follow-on Upgrades Lot 25 & Up							30	0.2													
ECP XX22 / 18E Follow-on upgrades Lot 24 & Below							30	0.2													
ECP 6076 / MLG Proximity Switches & Sidebrace Downlock Mechanism							12	0.1													
Installation Kits N/R				1.7		3.0		4.7													
Installation Equipment																					
Installation Equipment N/R																					
Engineering Change Orders																					
Data				0.2		0.5		0.8													
Training Equipment																					
Support Equipment				0.3		1.0		1.0													
ILS				2.5		3.2		3.3													
Other Support																					
Interim Contractor Support																					
Installation Cost				12	0.2	51	0.7	331	8.1												
TOTAL PROCUREMENT				11.3		20.2		26.9													

- Notes:
- Total may not add due to rounding.
 - Asterisk indicates amount less than \$50K
 - ECP 6194 was listed in previous budgets as ECP XXX1 / MLG Control Valve of Emerg Port Restrictor.
 - ECP 6171 was listed in previous budgets as ECP XXX4 / SUU 78 Back-Up Structure.
 - ECP 6193 was listed in previous budgets as ECP XXX9 / LEX Cracks.
 - ECP 6188 was listed in previous budgets as ECP XXX10 / FT50 Teardown Longeron Repair.
 - "Installation Kit" procurement quantity exceeds "Installation" quantity due to some kits being installed at the Organizational Level.

Exhibit P-3a		INDIVIDUAL MODIFICATION																		
MODIFICATION TITLE:		MARK XIIA MODE 5 IFF (OSIP 15-03)																		
MODELS OF SYSTEM AFFECTED:		VARIOUS (49 Separate T/M/S)										TYPE MODIFICATION:		CAPABILITY IMPROVEMENT						
DESCRIPTION/JUSTIFICATION:																				
<p>MK XII A Mode 5 provides improved secure cooperative combat identification through IFF. MODE 5 is a product improvement which is designed to be installed through engineering changes to digital MK XII interrogators and transponders including the APX-117, APX-118, UPX-37, APX-111, and RT-1832. MODE 5 is designed to be installed in all Navy T/M/S aircraft which are currently MODE 4 IFF capable (49 T/M/S aircraft). MODE 5 is developed in cooperation with NATO. MODE 5 was designated a "JROC special interest" program in March 2001 and is interoperable across all services. ORD # 577-06-01</p>																				
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:																				
<p>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. Preliminary Design Review (PDR) for the proposed ECP to incorporate MODE 5 in the APX-118 was completed in July 2001. Contracts to develop a prototype Cryptographic Module and ECP kit are presently being executed.</p>																				
FINANCIAL PLAN (TOA, \$ in Millions):																				
	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E		10.4		11.0		10.9		5.9												
PROCUREMENT																				
Installation Kits																				
Platform Installation A-Kits																				
Installation Kits N/R																				
Installation Equipment (Note 1)																				
MODE 5 IFF HARDWARE B-KIT																				
Installation Equipment N/R																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment				0.9																
ILS																				
Other Support																				
Interim Contractor Support																				
Installation Cost																				
TOTAL PROCUREMENT				0.9																

Notes:

- Totals may not add due to rounding
- Asterisk indicates amount less than \$50K
- FY04 funding for this OSIP resides in BLI 058200: ID Systems.

Exhibit P-3a **INDIVIDUAL MODIFICATION**

MODIFICATION TITLE: RESERVE SQUADRON ECP 560 OSIP 08-05

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

DESCRIPTION/JUSTIFICATION:

Upgrade Avionics for F/A-18A Hornets (Lots 8 and 9) for the U.S. Naval Reserve Force. The Avionics Upgrade includes new 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 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																							
PROCUREMENT																							
Installation Kits																							
ECP 560									4	1.6													
Installation Kits N/R																							
Installation Equipment									68	5.8													
Installation Equipment N/R																							
Engineering Change Orders																							
Data																							
Training																							
Other Support (Testing)																							
Support Equipment																							
ILS										0.5													
Interim Contractor Support																							
Installation Cost																							
TOTAL PROCUREMENT										7.9													

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

Exhibit P-3a

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

INSTALLATION INFORMATION:

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

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

CONTRACT DATES: FY 2002: _____ FY 2003: _____ FY 2004: _____ FY 2005: _____

DELIVERY DATE: FY 2002: _____ FY 2003: _____ FY 2004: _____ FY 2005: _____

(\$ in Millions)

Cost:	Prior Years		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2002 & PY () kits *																						
FY 2002 () kits																						
FY 2003 () kits																						
FY 2004 () kits																						
FY 2005 (4) kits																						
FY 2006 (3) kits																						
FY 2007 () kits																						
FY 2008 () kits																						
FY 2009 () kits																						
To Complete () kits																						
TOTAL																						

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

FY 2002 & Prior	FY 2002				FY 2003				FY 2004				FY 2005				FY 2006			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3.00	4
In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	FY 2007				FY 2008				FY 2009				To Complete	TOTAL
	1	2	3	4	1	2	3	4	1	2	3	4		
In														7
Out														7