

EXHIBIT R-2, RDT&E Budget Item Justification						DATE:	
APPROPRIATION/BUDGET ACTIVITY						R-1 ITEM NOMENCLATURE	
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-5						0604214N, AV-8B A/C - ENGINEERING DEV.	
COST (\$ in Millions)							
	FY 2008	FY 2009	FY 2010				
Total PE Cost	22.128	29.703	20.886				
0652 AV-8B	22.128	25.726	17.359				
2634 AV-8B OSCAR		3.977	3.527				

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The program provides AV-8B Design, Development, Integration and Test of the following improvements: The Engine Life Management Program (ELMP), Escape System, Joint Mission Planning System (JMPS), Block upgrade H6.0 to various Mission Systems such as Tactical Aircraft Moving Map Capability (TAMMAC), communications system, navigation equipment, H4.0/Weapons carriage expansion and countermeasures, and Aircraft Handling/Readiness Management Plan (RMP). The JMPS/AVJMPS is required as part of the DCN directed migration to a common Navy and Marine Corps mission planning system. The TAMMAC is the avionics system that replaced the aging/obsolete ANASQ-196 digital map set and the ANASQ-194 data storage set presently installed. A/C Handling and performance includes all engineering activities for development and design to support aircraft safety flight clearance and concept exploration to support program objectives. The Program Manager's (PMA-257) Evolutionary Acquisition Strategy includes Design, Development, Integration and Test activity under the consolidated effort of Block Developments: H4.0, H5.0, H6.0, H7.0 H8.0 and follow-on systems. TAMMAC is planned for incorporation into Block H4.0. H6.0 block upgrade will provide upgrades to the aircraft communications system for interoperability within the Network-centric warfare operational area. Additionally, the program provides weapons carriage expansion by design, development, integration and testing of additional precision guided and linked programmable weapon capabilities, digital close air support improvements, and video and data link improvements. The H5.0 also provides weapons carriage capability of the listening pod on centerline/station 4. This is an upgrade to the standard AV-8B aircraft capability. H7.0 Block upgrade will provide additional communications/data link upgrades and weapon expansion. H8.0 provides the follow-on step toward an integrated air picture within the Battle Space Network via Multifunctional Information Distribution System (MIDS)/MIDS/RS-Link-16 participation within the Global Information Grid (GIG). The ELMP is a comprehensive plan to increase safety of flight and operational readiness of the AV-8B F402-RR-408 Engine and accessories. PMA-257 will accomplish this mission by conducting Engineering Project Description (EPD) investigations and performing a series of planned accelerated Simulated Mission Endurance Test (ASMET) to derive engineering improvements to the engine. The Escape System qualifies an improved ejection seat to reduce the risk of injury to aircrew. The RMP is required to ensure the AV-8B air vehicle's sustained mission availability, and safe and reliable operational readiness until end of service. Air vehicle sustainment requires component and system analyses, technical planning, identification and diagnosis of problems and the development, testing and flight clearance of engineering solutions in the areas of flight and crew safety, structural integrity, obsolescence, systems reliability and maintainability, inventory preservation, alternative mission development, or other emergent material or equipment conditions affecting AV-8B systems readiness. Activities include research/analysis for system safety deficiency corrections, fuel system safety improvements, structural analyses, monitoring and integrity analysis, component obsolescence analyses including development of display computer and air data computer replacement, alternatives explorations for aging equipment, reliability improvement analyses and design developments.

FY2008 Supplemental funds received for AV-8B Strikelink (A), Digital Video Recorder (DVR) and Listening Block Upgrade for the AV-8B aircraft.

Strikelink (A) will enable digital transmission/reception of target data to/from the Strikelink/TACP-M and F/A18 while decreasing workload on the Forward Air Controller (FAC). Migration to this solution will enable common Close Air Support (CAS) software between AV-8B and the CAS Strikeline/TACP-M systems, ensuring Air-to-Ground and AV-8B to F/A-18 interoperability throughout the remaining AV-8B service life.

The Digital Video Recorder (DVR) will provide significant enhancement to mission record and post flight debrief capabilities. The Digital Video Recorder (DVR) for AV-8B provides drop-in O-level replacement to address sustainment issues, obsolescence mitigation, extended combat record time (increase from 2 hrs to 6 hrs), reduction in pilot and maintainer workload, reduced SE requirement (8mm playback viewer elimination), and reduction in supply chain management requirements.

Listening Pods will be upgraded to a common (AV-8B, F/A 18, EA-6B) expeditionary configuration to support USMC AV-8B deployments to Overseas Contingency Operations (OCO). This development effort ensures integration of evolving Listening Pod capabilities. This upgrade includes plug and play capability, which is a prerequisite for video downlink.

UNCLASSIFIED

EXHIBIT R-2, RDT&E Budget Item Justification		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-5		R-1 ITEM NOMENCLATURE 0604214N, AV-8B A/C - ENGINEERING DEV.

B. PROGRAM CHANGE SUMMARY

Funding:	FY 2008	FY 2009	FY 2010
FY 2009 President's Budget	17.011	29.924	18.086
FY 2010 President's Budget	22.128	29.703	20.886
Total Adjustments	5.117	-0.221	2.800
Summary of Adjustments			
Congressional Rescissions			
Congressional Adjustments	5.903	-0.140	
SBIR/STTR/FTT Assessments	-0.186		
Program Adjustments	-0.600		2.669
Rate/Misc Adjustments		-0.081	0.131
Subtotal	5.117	-0.221	2.800

Schedule: H6.0/Digital I-TER schedule delays are due to delays in awarding development/integration contract to prime vendor (EDO).

Technical: N/A

EXHIBIT R-2a, RDT&E Project Justification						DATE:	
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-5			PROGRAM ELEMENT NUMBER AND NAME 0604214N, AV-8B AIRCRAFT - ENGINEERING DEVELOPMENT			PROJECT NUMBER AND NAME 0652, AV-8B	
COST (\$ in Millions)	FY 2008	FY 2009	FY 2010				
0652 AV-8B	22.128	25.726	17.359				
RDT&E Articles Qty							

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The program provides AV-8B Design, Development, Integration and Test of the following improvements: The Engine Life Management Program (ELMP), Escape System, Tactical Aircraft Moving Map Capability (TAMMAC) and Aircraft Handling/Readiness Management Plan (RMP). The ELMP is a comprehensive plan to increase safety of flight and operational readiness of the AV-8B F402-RR-408 Engine and Gas Turbine Starter (GTS). PMA-257 will accomplish this mission by the Component Improvement Program and conduct Engineering Project Description investigations and performing a series of planned Accelerated Simulated Mission Endurance Tests (ASMET) to derive engineering improvements to the engine. The Escape System qualifies an improved ejection seat to reduce the risk of injury to aircrew. The JMPS/AVJMPS is required as part of the DON directed migration to a common Navy and Marine Corps mission planning system and TAMMAC functionality in H4.0 block development. H5.0 Block Upgrade provides Dual Mode Laser Guided Bombs (DMLGB) H6.0 includes weapons carriage expansion efforts and provides the first step toward Battle Space Networking interoperability within the Netcentric OP-area. PMA-257 is working closely with PMA-209 common avionics and the Allies (Spain, Italy and the UK) on this effort. A/C Handling and performance is all engineering activities for development and design to support aircraft safety flight clearance and concept exploration for resolution of emergent service life and readiness issues.

B. ACCOMPLISHMENTS / PLANNED PROGRAM:

Development of RMP ECP's	FY 2008	FY 2009	FY 2010
Accomplishments / Effort / Sub-total Cost	7.763	12.519	3.868
RDT&E Articles Qty			

Conduct system analyses, identification and diagnoses of problems and the development and testing of engineering solutions in the areas of flight and crew safety, structural integrity, obsolescence, systems reliability and maintainability, inventory preservation, alternative mission development or other emergent material or equipment conditions affecting AV-8B systems readiness. Address known and emergent readiness improvements and correction of deficiencies and issues including obsolescence and structural fatigue. Activities include: component obsolescence analyses including development of display computer and air data computer replacement and alternatives explorations for the air data computer and other aging equipment, crew ejection system and other safety deficiency corrections; fuel system safety improvements; structural analyses, monitoring, and integrity modifications; reliability improvement analyses and design developments.

Completion of ASMET IV Testing	FY 2008	FY 2009	FY 2010
Accomplishments / Effort / Sub-total Cost	5.042	9.417	12.153
RDT&E Articles Qty			

Testing, analysis and integration to improve safety of flight and operational readiness of the AV-8B Engine and accessories. Plan and complete ASMET V testing and develop new engine design efforts. Research, analysis, and develop design changes for engine accessories. Formalize Engine design development efforts based off of ASMET IV and incorporate into the engine. Address performance, reliability and obsolescence of F402 Engine Monitoring System by improving operator awareness and troubleshooting capability for maintainers. Address obsolescence, reliability and supportability of engine accessories to include Digital Electronic Control Unit (DECU), Fuel Metering Unit (FMU) and EVICS system which is comprised of Hydraulic Management Unit (HMU) and Integrated Digital Engine Control (IDEC). All of these units are vital to the engine fuel controls and engine functionality and performance. Conduct flight tests of the F402-RR-408 engine Low Pressure Compressor (LPC1) blade failures to mitigate blade stress. This testing assist is providing an immediate solution to the blade failures to increase safety of flight issues occurring in deployed squadrons in support of OCO.

Completed Dev Litening POD Dev and Integ	FY 2008	FY 2009	FY2010
Accomplishments / Effort / Sub-total Cost	3.595	3.790	1.338
RDT&E Articles Qty			

H5.0 Block Upgrade provides Dual Mode Laser Guided Bombs (DMLGB), Litening Centerline/Station 4 support the movement of the Litening targeting pod to the AV-8B centerline station allowing carriage of both left and right hand configured pods.(Improvement of current weapons carriage capability), Early Variable Message Format (VMF) Communication Development, H4.0/TAMMAC Software Trouble Reports.

EXHIBIT R-2a, RDT&E Project Justification			DATE: May 2009	
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604214N, AV-8B AIRCRAFT - ENGINEERING DEVELOPMENT		PROJECT NUMBER AND NAME 0652, AV-8B	
Completed STRIKELINK	FY 2008	FY 2009	FY2010	
Accomplishments / Effort / Sub-total Cost	5.728			
RDT&E Articles Qty				

The Strikelink (A) will enable digital transmission/reception of target data to/from the Strikelink/TACP-M and F/A 18 while decreasing workload on the Forward Air Controller. Migration to this solution will enable common CAS software between AV-8B and the CAS Strikelink/TACP-M systems ensuring Air-to-Ground and AV-8B to F/A-18 interoperability throughout the remaining AV-8B service life. The DVR will provide significant enhancement to mission record and post flight debrief capabilities. The Digital Video Recorder for AV-8B provides drop-in-O-level replacement to address sustainment issues, obsolescence mitigation, extended combat record time (increase from 2 hrs to 6 hrs), reduction in pilot and maintainer workload, reduced SE requirement (8mm playback viewer elimination), and reduction in supply chain management requirements. AV-8B Litening Pod to a common (AV-8B, F/A 18, EA-6B) marine expeditionary configuration to support USMC AV-8B deployment. This development effort ensures integration of evolving Litening Pod capabilities. This upgrade includes plug and play capability, which is a prerequisite for video downlink.

C. OTHER PROGRAM FUNDING SUMMARY:	FY 2008	FY 2009	FY 2010
P-1 # 29 APN BLI 051400, AV-8B Series Modification	44.537	83.646	63.964

D. ACQUISITION STRATEGY: All efforts under Aircraft Handling/RMP provide investigations and analysis of testing and flight clearance authorization necessary to assess overall system capability and integration of projects. Funding for the Engine Life Management Program (ELMP) will be placed on a cost type contract to Rolls Royce to address safety of flight issues, top readiness degraders, engine removal and mission failure drivers in order to improve Fleet readiness and cost of ownership. It is also developed to assess life management program issues and design fixes for any service revealed deficiencies. PMA-257's Evolutionary Acquisition Strategy includes Design, Development, Integration and Test activity under the consolidated effort of Block Developments: H2.0, H4.0, H5.0, H6.0, H7.0 H8.0 and following systems. The development and integration of JMPS/AVJMPS occurred concurrently with H2.0. Additional improvements are included in H4.0 TAMMAC is planned for incorporation into Block H4.0. H6.0 provides weapons carriage expansion efforts and the first step toward Battle Space Networking interoperability within the Netcentric OP-area. H7.0 provides the follow-on step toward an integrated air picture within the Battle Space Network via MIDS/RS-Link-16 participation within the GIG. H5.0 Block Upgrade provides Dual Mode Laser Guided Bombs (DMLGB), Litening Centerline/Station 4 (Improvement of current weapons carriage capability), PMA-257 is working closely with the Allies (Spain, Italy, UK) and PMA-209 Common Avionics on this effort for H6.0 and H8.0.

UNCLASSIFIED

Exhibit R-3 Cost Analysis (page 1)							DATE: May 2009				
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E,N / BA-5		0604214N, AV-8B AIRCRAFT - ENGINEERING DEVELOPMENT			0652, AV-8B						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY's Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date				
<b>PRODUCT DEVELOPMENT</b>											
Primary Hdw Development	C-CPFF	MANAGEMENT SCIENCES, INC. ALBUQUERQUE NM	.464	3.174	Various	1.482	Various				
Primary Hdw Development	C-CPFF	ROLLS-ROYCE PLC, BRISTOL GB	15.142	2.584	Dec 2008	2.646	Dec 2009				
Primary Hdw Development	C-CPFF	MCDONNELL DOUGLAS CORP, SAINT LOUIS, MO	1.465	.407	Feb 2009	.100	Feb 2010				
Primary Hdw Development	VARIOUS	Goodrich Power Systems, PITSTONE, BU	2.151	1.148	Various	5.925	Various				
Primary Hdw Development	WX	NAWCWD, CHINA LAKE CA	37.916	1.205	Dec 2008	.289	Dec 2009				
Primary Hdw Development	VARIOUS	VARIOUS	9.671	.750	Various	.750	Various				
Primary Hdw Development	C-CPFF	GE AVIATION DIGITAL SYSTEM, GRAND RAPIDS, MI	2.000	4.300	Feb 2009	1.634	Feb 2010				
Primary Hdw Development	C-CPFF	STAUDER, MI	3.000								
Systems Engineering	VARIOUS	MCDONNELL DOUGLAS CORP, SAINT LOUIS, MO	4.710	.632	Various	.200	Dec 2009				
Systems Engineering	VARIOUS	VARIOUS	.520								
Systems Engineering	VARIOUS	NAWCWD, CHINA LAKE CA	1.073	.500	Oct 2008						
Systems Engineering	MIPR	WRIGHT PATTERSON AFB, DAYTON OH	.275								
<b>SUBTOTAL PRODUCT DEVELOPMENT</b>			<b>78.387</b>	<b>14.700</b>		<b>13.026</b>					

Remarks: Added General Electric Aviation Digital System

<b>SUPPORT</b>											
Configuration Mgmt	VARIOUS	VARIOUS	.397								
Engineering Technical Services	C-CPFF	EDO PROFESSIONAL SERVICES INC., ARLINGTON, VA	1.737	.384	Feb 2009	.384	Feb 2010				
Integrated Logistics Sup	WX	NAWCAD, PATUXENT RIVER MD	1.366	.441	Nov 2008	.441	Nov 2009				
Software Development	VARIOUS	DCMA BOEING ST LOUIS, ST LOUIS, MO	1.148								
Software Development	WX	NAWCWD, CHINA LAKE CA	6.612	1.300	Nov 2008						
Software Development	VARIOUS	VARIOUS	18.875								
Software Development	C-CPFF	NORTHROP GRUMMAN, IL	2.000								
Studies & Analysis	VARIOUS	VARIOUS	1.819	.220	Various	.225	Various				
Support	VARIOUS	DCMA BOEING ST LOUIS, ST LOUIS, MO	5.490	.200	Dec 2008						
Technical Data	C-CPFF	VARIOUS	1.748								
<b>SUBTOTAL SUPPORT</b>			<b>41.192</b>	<b>2.545</b>		<b>1.050</b>					

Remarks: Added General Electric Aviation Digital System

<b>TEST &amp; EVALUATION</b>											
Developmental Test & Eval	C-CPFF	MCDONNELL DOUGLAS CORP, SAINT LOUIS, MO									
Developmental Test & Eval	WX	NAWCWD, CHINA LAKE CA	36.220	2.216	Various	.450	Various				
Operational Test & Eval	WX	OPER T & E FOR CD 30, NORFOLK VA	22.172			1.298	Jul 2010				
Operational Test & Eval	WX	NAWCWD, CHINA LAKE CA	.499	1.600	Various						
Test Assets	C-CPFF	GE AVIATION DIGITAL SYSTEM, GRAND RAPIDS, MI	.972	1.943	Feb 2009						
<b>SUBTOTAL TEST &amp; EVALUATION</b>			<b>59.863</b>	<b>5.759</b>		<b>1.748</b>					

Remarks:

<b>MANAGEMENT</b>											
ENGINEERING & TECH SRVC (NON-F	C-CPFF	VARIOUS	1.326	.310	Jan 2009	.170	Jan 2010				
Government Engineering Support	WX	VARIOUS	4.765	1.304	Nov 2008	.560	Nov 2009				
MGT & PROF SUPPT SRVC (NON-FFR	C-CPFF	VARIOUS	2.891	.678	Nov 2008	.411	Nov 2009				
Program Management Support	WX	VARIOUS	2.616	.295	Various	.284	Various				
Travel	TO	VARIOUS	.537	.135	Various	.110	Various				
<b>SUBTOTAL MANAGEMENT</b>			<b>12.135</b>	<b>2.722</b>		<b>1.535</b>					

Remarks:

<b>Total Cost</b>			<b>191.577</b>	<b>25.726</b>		<b>17.359</b>					
-------------------	--	--	----------------	---------------	--	---------------	--	--	--	--	--

CLASSIFICATION:

EXHIBIT R4, Schedule Profile										DATE: <b>May 2009</b>										
APPROPRIATION/BUDGET ACTIVITY					PROGRAM ELEMENT					PROJECT NUMBER AND NAME										
<b>RDT&amp;E, N / BA-5</b>					0604214N, AV-8B AIRCRAFT - ENG DEV					0652, AV-8B										
Fiscal Year	FY 2008				FY 2009				FY 2010				FY 2013				FY 2			
	1	2	3	4	1	2	3	4	1	2	3	4	4	1	2	3	4	1	2	
<b>Acquisition Milestones</b>				TAMMAC ★ IOC									★ H7.0 SRR					★ H7.0 PDR		
	★ H6.0 SRR	★ H6.0 PDR	★ H5.0 OTRR		★ RMP DC SRR				★ H6.0 CDR				★ H5.0 ICC					★ H6.0 GTRR		
									★ RMP DC PDR				★ RMP DC CDR							
<b>System Development</b>	H5.0 DMLGB, Litening Sta 4, Early VMF								H7.0 WPNs carriage exp.											
	RMP Display Computer DC)																			
	H6.0 WPNs carriage exp, Comm Net & Other Enhancements																			
<b>Engine Life Management Program Contract Award</b>	▶	ELMP			▶	ELMP			▶	ELMP								ELMP		
<b>Software Deliveries</b>																				
<b>Test &amp; Evaluation Milestones</b>																				
<b>Development Test</b>	H5.0 LPOD on 4 DT								H6.0 DT / IT											
<b>Operational Test</b>			H5.0 OT															H6.0		

UNCLASSIFIED

CLASSIFICATION:

Exhibit R-4a, Schedule Detail				DATE:			
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT		PROJECT NUMBER AND NAME			
RDT&E,N / BA-5		0604214N, AV-8B AIRCRAFT - ENG DEV		0652, AV-8B			
Schedule Profile		FY 2008	FY 2009	FY 2010			
ELMP CONTRACT AWARD		1Q	1Q	1Q			
H4.0 TAMMAC IOC		4Q					
H5.0 DMLGB,LITSTA4,VMF,STR SYS DEVELOPMENT		1Q-3Q					
H5.0 DT (LPOD)		1Q-2Q					
H5.0 OTRR		3Q					
H5.0 OT		3Q-4Q	1Q				
H5.0 S/W DELIVERY			4Q				
H5.0 IOC				1Q			
H6.0 WPNS CARRIAGE EXP COMM NETWORK SYS DEV		1Q-4Q	1Q-4Q	1Q-4Q			
H6.0 SRR		1Q					
H6.0 PDR		2Q					
H6.0 CDR			3Q				
H6.0 DT		4Q	1Q-4Q	1Q-3Q			
H6.0 OTRR				4Q			
H6.0 OT				4Q			
H6.0 S/W DELIVERY							
H6.0 IOC							
H7.0 WPNS CARRIAGE EXP COMM NETWORK SYS DEV				1Q-4Q			
H7.0 SRR				2Q			
H7.0 PDR				3Q			
H7.0 CDR							
H7.0 DT / IT							
H7.0 OTRR							
H7.0 OT							
H7.0 IOC							
H7.0 S/W DELIVERY							
H8.0 WPNS EXP AND OTHER ENHANCEMENTS							
H8.0 SRR							
H8.0 PDR							
H8.0 CDR							
H8.0 DT							
H8.0 OTRR							
H.8.0 OT							
H8.0 S/W Delivery							
H8.0 IOC							
RMP DISPLAY COMPUTER SYSTEM DEVELOPMENT		1Q-4Q	1Q-4Q	1Q-4Q			
RMP DISPLAY COMPUTER SRR			1Q				
RMP DISPLAY COMPUTER PDR			3Q				
RMP DISPLAY COMPUTER CDR				1Q			
RMP DISPLAY COMPUTER DT				1Q-4Q			
RMP DISPLAY COMPUTER OTRR							
RMP DISPLAY COMPUTER IOC							
RMP AIR DATA COMPUTER SYSTEM DEVELOPMENT							
RMP AIR DATA COMPUTER SRR							
RMP AIR DATA COMPUTER PDR							
RMP AIR DATA COMPUTER CDR							
RMP AIR DATA OTRR							
RMP AIR DATA DT							

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification						DATE: May 2009		
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-5		PROGRAM ELEMENT NUMBER AND NAME 0604214N, AV-8B AIRCRAFT - ENGINEERING DEVELOPME			PROJECT NUMBER AND NAME 2634 AV-8B (OSCAR)/Digital Improved Triple Ejector			
COST (\$ in Millions)		FY2008	FY 2009	FY 2010				
2634 AV-8B (OSCAR)/DITER*			3.977	3.527				
RDT&E Articles Qty								

\* Prior years funding was reported under Program Element 0205633N, PU 3189.

B. ACCOMPLISHMENTS / PLANNED PROGRAM:

Development of Digital I-TER		FY 2008	FY 2009	FY 2010
Accomplishments / Effort / Sub-total Cost			3.977	3.527
RDT&E Articles Qty				

The Open Systems Core Avionics Requirements (OSCAR) initiative is replacing the Mission Computer and Store Management System with Commercial components and continued development of the common integrated Night Attack/Radar software to include integration of the 1000lb Joint Direct Attack Munitions (JDAM) weapon. The Digital Improved Triple Ejector Rack (I-TER) provides for the increased capability to the existing BRU-42 I-TER for the AV-8B platform. This provides for multiple carriage capability for Smart weapons such as JDAM.

C. OTHER PROGRAM FUNDING SUMMARY:		FY 2008	FY 2009	FY 2010
R-1# 178 RDTE PE 0205633N Aviation Improvemen		95.667	99.416	135.840

D. ACQUISITION STRATEGY: PEO(A) ADM Ser DPEO(A)-ACQ2/015-97 dated 6 March 1997 approved the MSII acquisition strategy for OSCAR as an ACAT IVT program. OSCAR avionics CDR was held in January 1998 and completed first flight 29 May 1998. Using the NAWC-WD CPAF contract, funds will be used for basic design definition, drawing development, and CFP development and test. Twelve Mission System Computers and fourteen Warfare Management Computer engineering models have been procured for laboratory and flight test. The NAWC-WD/Boeing follow-on CPAF Contract was awarded on 16 December 1998. The period of performance will be for five years based on the need to complete Open System Core Avionics Requirement (OSCAR) and begin follow-on software block upgrade H2.0. As directed during 4 September 1998 program restructuring, an ACAT redesignation letter was approved changing the OSCAR program from an ACAT IVT program to an ACAT II program. Acquisition documentation will be updated accordingly to include the funding in FY2009 and FY2010 for the incorporation of Dig I-TER within OSCAR.

UNCLASSIFIED

Exhibit R-3 Cost Analysis (page 1)							DATE: May 2009						
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-5		PROGRAM ELEMENT 0604214N, AV-8B AIRCRAFT - ENGINEERING DEVELOPMENT				PROJECT NUMBER AND NAME 2634, AV-8B OSCAR							
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date						
PRODUCT DEVELOPMENT													
Primary Hdw Development	C-CPAF	MCDONNELL DOUGLAS CORP, SAINT LOUIS, MO	64.806										
Primary Hdw Development	C-CPFF	DCMC, Draper Laboratory, Cambridge, MA	.285										
Primary Hdw Development	C-FFP	DSC, KMX Norfolk	.406										
Systems Engineering	WX	NAWCWD, CHINA LAKE CA	40.893			.215	Nov 2009						
Systems Engineering	WX	NAWCAD, PATUXENT RIVER MD	3.239										
Systems Engineering	VARIOUS	PMA-209	4.448										
Award Fees	C-CPAF	MCDONNELL DOUGLAS CORP, SAINT LOUIS, MO	8.967										
SUBTOTAL PRODUCT DEVELOPMENT			123.044			.215							

Remarks:

SUPPORT													
Development Support Equipment	VARIOUS	VARIOUS	.284										
Integrated Logistics Sup	VARIOUS	VARIOUS	.323			1.000	Nov 2009						
Configuration Mgmt	VARIOUS	VARIOUS	.143										
Software Development	WX	NAWCWD, CHINA LAKE CA		1.666	Nov 2008								
Other Support	WX	VARIOUS		.743	Nov 2008								
SUBTOTAL SUPPORT			.750	2.409		1.000							

Remarks:

TEST & EVALUATION													
Developmental Test & Eval	WX	NAWCWD, CHINA LAKE CA	17.554	1.568	Nov 2008								
Developmental Test & Eval	WX	OPER T & E FOR CD 30, NORFOLK VA	2.813			1.880	Jul 2010						
SUBTOTAL TEST & EVALUATION			20.367	1.568		1.880							

Remarks:

MANAGEMENT													
Contractor Engineering Support	VARIOUS	VARIOUS	.402										
Travel	WX	NAWCAD, PATUXENT RIVER MD	.031										
SBIR Assessment			.165										
MGT & PROF SUPPT SRVC (NON-FFRC)	VARIOUS	VARIOUS				.432	Nov 2009						
SUBTOTAL MANAGEMENT			.598			.432							

Remarks:

Total Cost			144.759	3.977		3.527							
------------	--	--	---------	-------	--	-------	--	--	--	--	--	--	--



UNCLASSIFIED

CLASSIFICATION:

Exhibit R-4a, Schedule Detail					DATE:		May 2009	
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT		PROJECT NUMBER AND NAME				
RDT&E,N / BA-5		0604214N, AV-8B AIRCRAFT - ENG DEV		2634, AV-8B (OSCAR)/Digital Improved Triple Ejector Rack				
Schedule Profile		FY 2008	FY 2009	FY 2010				
Dig I-TER WPNS CARRIAGE EXP COMM NETWORK SYS DEV			1Q-4Q	1Q-4Q				
Dig I-TER CDR			3Q					
Dig I-TER DT / IT			3Q-4Q	1Q-4Q				
H6.0 Dig I-TER OTRR				4Q				
Dig I-TER OT				4Q				
H6.0 Dig I-TER S/W DELIVERY								

UNCLASSIFIED