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EXHIBIT R-2, RDT&E Budget Item Justification	DATE: May 2009
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APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-5	R-1 ITEM NOMENCLATURE 0604221N, P-3 MODERNIZATION PROGRAM
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COST (\$ in Millions)	FY 2008	FY 2009	FY 2010				
Total PE Cost	4.511	3.562	3.659				
1152 P-3 SENSOR INTEGRATION	3.136	1.455	1.499				
3016 FATIGUE LIFE MANAGEMENT PROGRAM	1.375	2.107	2.160				

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

This program provides for P-3C aircraft systems development in subsurface and surface surveillance, search, detection, localization, classification, attack and communications in support of Sea Shield/Sea Power 21. The P-3C Sensor Integration project integrates advanced and future AntiSubmarine Warfare (ASW) and AntiSurface Warfare (ASuW) sensors, weapons systems, and supporting technology into legacy P-3C systems and phased capabilities upgrades. The program also advances Air Acoustic Rapid COTs Insertion (ARCI) efforts by replacing legacy MIL-SPEC UYS-1 with increasingly open, COTS-based architecture. Also, P-3 Sensor Integration will expand software and hardware technology of P-3 systems to integrate additional sensor and processing capabilities, environmental prediction tools, tactical decision aides, color capabilities and communications to improve aircrew tactical proficiency and battlespace awareness. Sensor Integration is a continuous effort to integrate and test newly evolving ASW and ASuW technologies such as Analyzer Sub-Unit and System Controller Technology Insertions, "Extended Echo Ranging" (EER) family of Multi-Static active systems, Acoustic Rapid COTs Insertion (ARCI), Non-acoustic ASW sensors and systems, and future Technical Refresh insertions for obsolescence and processing improvements. Develop interface control for ASW weapon improvement solutions. The Over the Horizon (OTH) Wideband system will provide the P-3C AIP aircraft the capability to conduct OTH Satellite communications which will allow the on-station aircraft to transmit real time sensitive acoustic intelligence data which will maximize enemy detections, tracking, and engagement opportunities.

Fatigue Life Management Program is required to manage P-3/EP-3 inventory fatigue life and includes ongoing structural analysis, analyzing emergent structural issues, conducting engineering studies, assessing Fleet impact, and applying new technologies such as Non-Destructive Inspection (NDI) techniques.

B. PROGRAM CHANGE SUMMARY:

	FY08	FY09	FY10
Funding:			
Previous President's Budget:	4.461	3.589	3.705
Current President's Budget:	4.511	3.562	3.659
Total Adjustments	0.050	-0.027	-0.046

Summary of Adjustments

Congressional Rescissions			
Congressional Adjustments		-0.017	
SBIR/STTR/FTT Assessments	0.059		
Program Adjustments	-0.009		-0.046
Rate/Misc Adjustments		-0.010	
Subtotal	0.050	-0.027	-0.046

Schedule:
Not Applicable

Technical:
Not Applicable

EXHIBIT R-2a, RDT&E Project Justification							DATE: May 2009	
APPROPRIATION/BUDGET ACTIVITY RDT& BA-5		PROGRAM ELEMENT NUMBER AND NAME 0604221N, P-3 MODERNIZATION PROGRAM			PROJECT NUMBER AND NAME 1152, P-3 SENSOR INTEGRATION			
COST (\$ in Millions)		FY 2008	FY 2009	FY 2010				
Project Cost		3.136	1.455	1.499				
RDT&E Articles Qty		3						

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

This program provides for P-3C aircraft systems development in subsurface and surface surveillance, search, detection, localization, classification, attack and communications in support of Sea Shield/Sea Power 21. The P-3C Sensor Integration project integrates advanced and future ASW and ASuW sensors, weapons systems, and supporting technology into legacy P-3C systems and phased capabilities upgrades. The program also advances Air Acoustic Rapid COTs Insertion (ARCI) efforts by replacing legacy MIL-SPEC UYS-1 with increasingly open, COTS-based architecture. Also, P-3 Sensor Integration will expand software and hardware technology of P-3 systems to integrate additional sensor and processing capabilities, environmental prediction tools, tactical decision aides, color capabilities and communications to improve aircrew tactical proficiency and battlespace awareness. Sensor Integration is a continuous effort to integrate and test newly evolving ASW and ASuW technologies such as Analyzer Sub-Unit (ASU) and System Controller (SC) Technology Insertions, "Extended Echo Ranging" (EER) family of Multi-Static active systems, Acoustic Rapid Cots Insertion (ARCI), Non-acoustic ASW sensors and systems, and future Technical Refresh insertions for obsolescence and processing improvements. Develop interface control for ASW weapon improvement solutions. The Over the Horizon (OTH) Wideband system will provide the P-3C AIP aircraft the capability to conduct OTH Satellite communications which will allow the on-station aircraft to transmit real time sensitive acoustic intelligence data which will maximize enemy detections, tracking and engagement opportunities.

B. Accomplishments/Planned Program

P-3 integration of ASW and ASuW sensors / weapon systems	FY 08	FY 09	FY 10	
Accomplishments/Effort/Subtotal Cost		1.455	1.499	
RDT&E Articles Quantity				

This program provides for P-3C aircraft systems development in subsurface and surface surveillance, search, detection, localization, classification, attack and communications in support of Sea Shield/Sea Power 21. The P-3C Sensor Integration project integrates advanced and future ASW and ASuW sensors, weapons systems, and supporting technology into legacy P-3C systems and phased capabilities upgrades. The program also advances Air ARCI efforts by replacing legacy MIL-SPEC UYS-1 with increasingly open, COTS-based architecture. Also, P-3 Sensor Integration will expand software and hardware technology of P-3 systems to integrate additional sensor and processing capabilities, environmental prediction tools, tactical decision aides, color capabilities and communications to improve aircrew tactical proficiency and battlespace awareness. Sensor Integration is a continuous effort to integrate and test newly evolving ASW and ASuW technologies such as Analyzer Sub-Unit (ASU) and System Controller (SC) Technology Insertions, "Extended Echo Ranging" (EER) family of Multi-Static active systems, Acoustic Rapid Cots Insertion (ARCI), Non-acoustic ASW sensors and systems, and future Technical Refresh insertions for obsolescence and processing improvements. Develop interface control for ASW weapon improvement solutions.

EXHIBIT R-2a, RDT&E Project Justification		DATE: May 2009																
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604221N, P-3 MODERNIZATION PROGRAM	PROJECT NUMBER AND NAME 1152, P-3 SENSOR INTEGRATION																
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Conduct P-3C OTH Satellite communications</td> <td style="text-align: center; padding: 2px;">FY 08</td> <td style="text-align: center; padding: 2px;">FY 09</td> <td style="text-align: center; padding: 2px;">FY 10</td> <td style="width: 50px;"></td> </tr> <tr> <td style="padding: 2px;">Accomplishments/Effort/Subtotal Cost</td> <td style="text-align: center; padding: 2px;">3.136</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding: 2px;">RDT&E Articles Quantity</td> <td style="text-align: center; padding: 2px;">3</td> <td></td> <td></td> <td></td> </tr> </table>	Conduct P-3C OTH Satellite communications	FY 08	FY 09	FY 10		Accomplishments/Effort/Subtotal Cost	3.136				RDT&E Articles Quantity	3				<div style="border: 1px solid black; padding: 10px; min-height: 80px;"> <p>The OTH Wideband program will provide P-3C AIP aircraft the capability to conduct OTH Satellite communications. Specifically, this program will design, develop, integrate and evaluate this capability on the P-3C AIP aircraft.</p> </div>		
Conduct P-3C OTH Satellite communications	FY 08	FY 09	FY 10															
Accomplishments/Effort/Subtotal Cost	3.136																	
RDT&E Articles Quantity	3																	
<p>C. OTHER PROGRAM FUNDING SUMMARY: Not Applicable</p> <p>D. ACQUISITION STRATEGY: The Air Deployable Active Receiver/Improved Extended Echo Ranging (IEER) Operational Requirements Document (Ser# 297(1)-05-97)) for 1152 was approved on 29 December 1997. The P-3 ASUW Improvement Program (AIP) ORD (Ser#355-88-94) for 2417 was approved on 30 March 1994. The Acquisition Plan (AIR-93-08A Rev 2) was approved on 30 March 1998. The ASR (AIR-ASR-26A Rev 3) was approved 29 Nov 1999 which includes Over the Horizon (OTH) Wideband system.</p>																		

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Exhibit R-3 Cost Analysis (page 1)										DATE: May 2009			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5			PROGRAM ELEMENT 0604221N, P-3 MODERNIZATION PROGRAM				PROJECT NUMBER AND NAME 1152, P-3 SENSOR INTEGRATION						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date						
Primary Hardware Development	C-FP	LM, ST PAUL, MN	8.678										
Systems Engineering	SS-CPFF	LM, MANASSAS, VA	11.566	1.377	10/08	1.499	10/09						
Subtotal Product Development			20.244	1.377		1.499							
Remarks:													
Software Development	WX	VARIOUS	4.340										
Subtotal Support			4.340	0.000		0.000							
Remarks:													

Exhibit R-3 Cost Analysis (page 2)							DATE: May 2009					
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT			PROJECT NUMBER AND NAME							
RDT&E, N / BA-5		0604221N, P-3 MODERNIZATION PROGRAM			1152, P-3 SENSOR INTEGRATION							
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date					
Developmental Test & Evaluation	WX	NAWCAD, PAX RIVER, MD	0.768									
Subtotal T&E			0.768	0.000		0.000						
Remarks:												
Contractor Engineering Support	WX	SPAWARSYSCOM, SC	0.133									
Government Engineering Support	WX	VARIOUS	1.537									
Travel	WX	NAWCAD, PAX RIVER, MD	0.726	0.078	10/08							
Subtotal Management			2.396	0.078		0.000						
Remarks:												
Total Cost			27.748	1.455		1.499						
Remarks:												

EXHIBIT R4, Schedule Profile													DATE: May 2009				
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5					PROGRAM ELEMENT NUMBER AND NAME 0604221N, P-3 MODERNIZATION PROGRAM					PROJECT NUMBER AND NAME 1152, P-3 SENSOR INTEGRATION							
Fiscal Year	2008				2009				2010								
	1	2	3	4	1	2	3	4	1	2	3	4					
EER Multi-Static Active Sensor System Support																	
EER Fleet Technology Insertion																	
P-3 Critical Obsolescence Program Kits & Installation																	
P-3 ARCI program and Future Fleet Technology Insertion																	
OTH Wideband																	

EXHIBIT R-2a, RDT&E Project Justification							DATE: May 2009																
APPROPRIATION/BUDGET ACTIVITY RDT& BA-5			PROGRAM ELEMENT NUMBER AND NAME 0604221N, P-3 MODERNIZATION PROGRAM			PROJECT NUMBER AND NAME 3016, FATIGUE LIFE MANAGEMENT PROGRAM																	
COST (\$ in Millions)			FY 2008	FY 2009	FY 2010																		
Project Cost			1.375	2.107	2.160																		
RDT&E Articles Qty																							
<p>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: Fatigue Life Management Program is required to manage P-3/EP-3 inventory fatigue life and includes ongoing structural analysis, analyzing emergent structural issues, conducting engineering studies, assessing Fleet impact, and applying new technologies such as Non-Destructive Inspection (NDI) techniques.</p> <p>B. ACCOMPLISHMENTS/PLANNED PROGRAM:</p> <table border="1" style="width:100%; border-collapse: collapse; margin: 10px 0;"> <tr> <td>P-3/EP-3 Fatigue Life Management</td> <td style="text-align: center;">FY 08</td> <td style="text-align: center;">FY 09</td> <td style="text-align: center;">FY 10</td> <td></td> </tr> <tr> <td>Accomplishments/Effort/Subtotal Cost</td> <td style="text-align: center;">1.375</td> <td style="text-align: center;">2.107</td> <td style="text-align: center;">2.160</td> <td></td> </tr> <tr> <td>RDT&E Articles Quantity</td> <td></td> <td></td> <td></td> <td></td> </tr> </table> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> Fatigue Life Management Program : Manage P-3/EP-3 inventory fatigue life including conducting structural analysis, analyzing structural issues, conducting engineering studies, assessing Fleet impact Research, test and apply new Fatigue Inspection techniques to the P-3/EP-3 Fleet. </div> <p>C. OTHER PROGRAM FUNDING SUMMARY: Not Applicable</p> <p>D. ACQUISITION STRATEGY: The Fatigue Life Management Program leverages off of prior work done under P-3 SLAP (2451). The ASUW Improvement Program (AIP) ORD 355-88-94 was approved 30 March 94. PMP #0526 Ser 902D1/6U324405 was approved on 6 Feb 1986. Navy Decision Coordination Paper W-0484-AS was signed 23 Jun 1984. Work will be performed by LMAS and other industry participants along with the NAVAIR Structural Engineering Dept, AIR-4.3. This program supports the 7 June 2003 CNO approved P-3/EP-3 Sustainment Bridge to MMA.</p>									P-3/EP-3 Fatigue Life Management	FY 08	FY 09	FY 10		Accomplishments/Effort/Subtotal Cost	1.375	2.107	2.160		RDT&E Articles Quantity				
P-3/EP-3 Fatigue Life Management	FY 08	FY 09	FY 10																				
Accomplishments/Effort/Subtotal Cost	1.375	2.107	2.160																				
RDT&E Articles Quantity																							

Exhibit R-3 Cost Analysis (page 1)										DATE: May 2009			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5			PROGRAM ELEMENT 0604221N, P-3 MODERNIZATION PROGRAM				PROJECT NUMBER AND NAME 3016, FATIGUE LIFE MANAGEMENT PROGRAM						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date						
Systems Engineering	C-CPIF	LM, MARIETTA, GA	4.016	1.100	01/09	1.182	01/10						
Subtotal Product Development			4.016	1.100		1.182							
Remarks:													
Subtotal Support			0.000	0.000		0.000							
Remarks:													

Exhibit R-3 Cost Analysis (page 2)							DATE: May 2009				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME					
RDT&E, N / BA-5			0604221N, P-3 MODERNIZATION PROGRAM			3016, FATIGUE LIFE MANAGEMENT PROGRAM					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date				
Subtotal T&E			0.000	0.000		0.000					
Remarks:											
Government Engineering Support	WX	VARIOUS	3.935	0.778	11/08	0.755	11/09				
Program Management Support	WX	VARIOUS		0.200	11/08	0.200	11/09				
Travel	WX	NAWCAD, PAX RIVER, MD	0.425	0.029	11/08	0.023	11/09				
Subtotal Management			4.360	1.007		0.978					
Remarks:											
Total Cost			8.376	2.107		2.160					
Remarks:											

EXHIBIT R4, Schedule Profile													DATE: May 2009					
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5						PROGRAM ELEMENT NUMBER AND NAME 0604221N, P-3 MODERNIZATION PROGRAM						PROJECT NUMBER AND NAME 3016, FATIGUE LIFE MANAGEMENT PROGRAM						
Fiscal Year	2008				2009				2010									
	1	2	3	4	1	2	3	4	1	2	3	4						
Inventory Fatigue Life Management/Sustainment																		

