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CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification							DATE: February 2002				
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-5						R-1 ITEM NOMENCLATURE 0604221N P-3 Modernization Program					
COST (\$ in Millions)	Prior Year Cost		FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program
Total PE Cost			7.123 [*]	3.192	2.348	3.259	2.495	2.536	2.581	Continuing	Continuing
H1152 P-3 Sensor Integration			7.123 [*]	3.192	2.348	3.259	2.495	2.536	2.581	Continuing	Continuing
Quantity of RDT&E Articles	Not Applicable										
<p>* The FY 2001 budget reflects an \$4.500 million Congressional add for APS-137 radar upgrades executed under H2876, which has been revised by \$.224 million for a Small Business Innovative Research Assessment.</p> <p>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program provides upgrades to P-3C aircraft systems to enhance surface and subsurface tracking and classification; attack capabilities including Specific Emitter Identification (SEI); and improved APS-137 radar tracking and upgrades. The P-3C Sensor Integration project develops software necessary to integrate advanced sensors into embedded P-3C Update III computer systems. Also, P-3 Sensor Integration will expand software development of P-3 systems to integrate additional sensors, tactical decision aids, and color capabilities to improve aircrew tactical proficiency and awareness. Sensor Integration is a continuous effort to integrate and test newly evolving ASW technologies such as the Advanced Extended Echo Ranging (AEER) system, Shallow Water ASW Localization and Attack System (SWALAS) and Tactical Acoustic Measurement and Decision Aids (TAMDA) Program.</p> <p>(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under Engineering and Manufacturing Development because it encompasses engineering and manufacturing development of new end-items prior to production approval decision.</p>											

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EXHIBIT R-2a, RDT&E Project Justification								DATE: February 2002			
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME					PROJECT NUMBER AND NAME					
RDT&E, N / BA-5	0604221N P-3 Modernization Program					H1152 P-3 Sensor Integration					
COST (\$ in Millions)	Prior Year Cost		FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program
Project Cost			7.123	3.192	2.348	3.259	2.495	2.536	2.581	Continuing	Continuing
RDT&E Articles Qty											

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(U) PROGRAM ACCOMPLISHMENTS AND PLANS

1. FY 2001 ACCOMPLISHMENTS:

- (U) (\$.447) Continued system engineering support for integration of Improved Extended Echo Ranging (IEER) system.
- (U) (\$1.718) Continued IEER integration and flight testing.
- (U) (\$.750) Provided Aviation Depot Level Repairable (AVDLR) for P-3 test aircraft.
- (U) (\$4.208) Upgraded the APS-137 radar.

2. FY 2002 PLANS:

- (U) (\$.410) Continue system engineering support for integration of IEER system and initiate engineering support of Advance Exstended Echo Ranging (AEER).
- (U) (\$1.784) Complete IEER integration, fleet delivery, and flight testing and initiate AEER software development.
- (U) (\$.901) Provide AVDLR for P-3 test aircraft.
- (U) (\$.097) Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 USC 638.

3. FY 2003 PLANS:

- (U) (\$1.419) Continue system engineering support for integration of AEER system and initiate engineering support of SWALAS and TAMDA.
- (U) (\$.324) Deliver IEER and continue AEER software development and integration.
- (U) (\$.605) Provide AVDLR for P-3 test aircraft.

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<p>(U) B. PROGRAM CHANGE SUMMARY:</p> <table style="margin-left: 40px; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"></th> <th style="text-align: center;"><u>FY2001</u></th> <th style="text-align: center;"><u>FY2002</u></th> <th style="text-align: center;"><u>FY2003</u></th> </tr> </thead> <tbody> <tr> <td>(U) FY2002 President's Budget:</td> <td style="text-align: center;">7.333</td> <td style="text-align: center;">3.220</td> <td></td> </tr> <tr> <td>(U) Adjustments from the FY2002 President's Budget:</td> <td style="text-align: center;">-0.210</td> <td style="text-align: center;">-0.028</td> <td></td> </tr> <tr> <td>(U) FY2003 President's Budget Submit:</td> <td style="text-align: center;">7.123</td> <td style="text-align: center;">3.192</td> <td style="text-align: center;">2.348</td> </tr> </tbody> </table> <p>CHANGE SUMMARY EXPLANATION:</p> <p>(U) Funding: The FY2001 net decrease of \$0.210 million consists of a decrease of \$0.224 million for a Small Business Innovative Research Assessment offset by an increase of \$0.014 million for IEER integration and flight testing. The FY2002 net decrease of \$0.028 million consists of a decrease for an undistributed congressional reduction.</p> <p>(U) Schedule: IEER Fleet Delivery slipped to 2Q/03 as a result of Fleet identifying support requirements that need to be met before fielding system. IEER DT III was rescheduled to 3Q/01 and IEER OT III was rescheduled to 2Q/02 to accommodate additional software development and testing. COTF and VX-1 will conduct an operational assessment of IEER in the 2QFY02. Engineering Support of SWALAS/TAMDA to commence 1QFY03.</p> <p>(U) Technical: Not Applicable.</p> <p>(U) C. OTHER PROGRAM FUNDING SUMMARY: Not Applicable.</p>				<u>FY2001</u>	<u>FY2002</u>	<u>FY2003</u>	(U) FY2002 President's Budget:	7.333	3.220		(U) Adjustments from the FY2002 President's Budget:	-0.210	-0.028		(U) FY2003 President's Budget Submit:	7.123	3.192	2.348
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RDT&E, N / BA-5	0604221N P-3 Modernization Program	H1152 P-3 Sensor Integration																											
<p>(U) D. ACQUISITION STRATEGY: The Air Deployable Active Receiver/Improved Extended Echo Ranging (IEER) Operational Requirements Document (Ser# 297(1)-05-97)) for H1152 was approved on 29 December 1997. The P-3 ASUW Improvement Program (AIP) ORD (Ser# 355-88-94) for H2417 was approved on 30 March 1994. The Acquisition Plan (AIR-93-08A Rev 2) was approved on 30 March 1998.</p> <p>(U) E. SCHEDULE PROFILE:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 20%;"></th> <th style="width: 15%; text-align: center;"><u>FY 2001</u></th> <th style="width: 15%; text-align: center;"><u>FY 2002</u></th> <th style="width: 15%; text-align: center;"><u>FY 2003</u></th> <th style="width: 15%; text-align: center;"><u>TO COMPLETE</u></th> </tr> </thead> <tbody> <tr> <td>(U) Program Milestones</td> <td>1Q/01 Radar Upgrade IOC</td> <td>2Q/02 IEER Operational Assesment (OA)</td> <td>2Q/03 IEER Fleet Delivery</td> <td></td> </tr> <tr> <td>(U) Engineering Milestones</td> <td></td> <td>1Q-4Q/02 AEER P-3C Software Development</td> <td>1Q-4Q/03 AEER Software Development 1Q-4Q/03 SWALAS/TAMDA engineering support</td> <td>1Q-4Q/04 AEER Software Development 1Q-4Q/03 SWALAS/TAMDA P-3C Software Development</td> </tr> <tr> <td>(U) T&E Milestones</td> <td>3Q/01-4Q/01 IEER DT III</td> <td>1Q/02 IEER DT III Complete 2Q/02 IEER OT III</td> <td></td> <td></td> </tr> <tr> <td>(U) Contract Milestones</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>						<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>TO COMPLETE</u>	(U) Program Milestones	1Q/01 Radar Upgrade IOC	2Q/02 IEER Operational Assesment (OA)	2Q/03 IEER Fleet Delivery		(U) Engineering Milestones		1Q-4Q/02 AEER P-3C Software Development	1Q-4Q/03 AEER Software Development 1Q-4Q/03 SWALAS/TAMDA engineering support	1Q-4Q/04 AEER Software Development 1Q-4Q/03 SWALAS/TAMDA P-3C Software Development	(U) T&E Milestones	3Q/01-4Q/01 IEER DT III	1Q/02 IEER DT III Complete 2Q/02 IEER OT III			(U) Contract Milestones				
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Exhibit R-3 Cost Analysis (page 1)										DATE: February 2002		
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RDT&E, N / BA-5			0604221N P-3 Modernization Program			H1152 P-3 Sensor Integration						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Hardware Development	C/FP	Raytheon, McKinney, Tx	2.217	4.208	01/01						6.425	6.425
Subtotal Product Development			2.217	4.208							6.425	
Remarks:												
Software Development	C/FP	Raytheon, McKinney, Tx	5.781								5.781	5.781
Software Development	C/FP	Raytheon, McKinney, Tx	1.998								1.998	1.998
Software Development	SS/FP	LMNESS, Egan, MN	14.561								14.561	14.561
Systems Engineering	Various	Various	25.877	1.101	12/00	1.181	12/01	1.067	12/02	Continuing	Continuing	
Subtotal Support			48.217	1.101		1.181		1.067		Continuing	Continuing	
Remarks:												

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Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WX	NAWCAD, Pax River, MD	5.572	0.764	12/00	0.901	12/01	0.605	12/02	Continuing	Continuing	
Subtotal T&E			5.572	0.764		0.901		0.605		Continuing	Continuing	
Remarks:												
Contractor Engineering Support	C/FP	RBC, Arlington, VA	3.716	0.447	12/00	0.410	12/01	0.352	12/02	2.860	7.785	7.785
Government Engineering Support	WX	NAWCAD, Pax River, MD	1.060	0.603	12/00	0.603	12/01	0.324	12/02	Continuing	Continuing	
SBIR ASSESSMENT						0.097					0.097	
Subtotal Management			4.776	1.050		1.110		0.676		Continuing	Continuing	
Remarks:												
Total Cost			60.782	7.123		3.192		2.348		Continuing	Continuing	
Remarks:												

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Exhibit R-2, RDTEB Budget Item Justification
(Exhibit R-2, page 6 of 6)