

**UNCLASSIFIED**

**EXHIBIT R-2, FY 2000 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET**

**DATE: February 1999**

**BUDGET ACTIVITY: 5**

**PROGRAM ELEMENT: 0604221N**

**PROGRAM ELEMENT TITLE: P-3 Modernization Program**

**(U) COST: (Dollars in Thousands)**

<u>Project Number &amp; Title</u>	<u>FY 1998 Budget</u>	<u>FY 1999 Budget</u>	<u>FY 2000 Estimate</u>	<u>FY 2001 Estimate</u>	<u>FY 2002 Estimate</u>	<u>FY 2003 Estimate</u>	<u>FY 2004 Estimate</u>	<u>FY 2005 Estimate</u>	<u>To Complete</u>	<u>Total Program</u>
H1152 P-3 Sensor Integration	12,403	2,828	3,010	3,063	3,398	2,554	8,520	8,252	CONT	CONT

Quantity of RDT&E Articles

FY 1998 H1152 includes Congressionally directed funding for Project Number H2417 (\$9,436, P-3 AIP Sensors).

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program provides upgrades to P-3C aircraft systems to enhance surface and subsurface tracking, classification, and attack capabilities including Specific Emitter Identification (SEI) and improved radar tracking. The P-3C Sensor Integration project develops software necessary to integrate advanced sensors into embedded P-3C Update III computer systems. In FY 2004, P-3 Sensor transition to Multi-Mission Maritime Aircraft (MMA ) begins. Efforts will include the migration of current sensors and weapons; the selection and development of new sensors, weapons and system architectures; and improved supportability and maintainability of all aircraft 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. This program is funded under ENGINEERING & MANUFACTURING DEVELOPMENT because it encompasses engineering and manufacturing development of new end-items prior to production approval decision.

**R-1 Item No. 88  
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**EXHIBIT R-2a, FY 2000 RDT&E,N BUDGET PROJECT JUSTIFICATION SHEET**

**DATE: February 1999**

**BUDGET ACTIVITY: 5**

**PROGRAM ELEMENT: 0604221N**

**PROJECT NUMBER: H1152**

**PROGRAM ELEMENT TITLE: P-3 Modernization Program**

**PROJECT TITLE: P-3 Sensor Integration**

**(U) COST: (Dollars in Thousands)**

<u>Project Number &amp; Title</u>	<u>FY 1998 Budget</u>	<u>FY 1999 Budget</u>	<u>FY 2000 Estimate</u>	<u>FY 2001 Estimate</u>	<u>FY 2002 Estimate</u>	<u>FY 2003 Estimate</u>	<u>FY 2004 Estimate</u>	<u>FY 2005 Estimate</u>	<u>To Complete</u>	<u>Total Program</u>
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**PROJECT NUMBER: H1152**

**PROGRAM ELEMENT TITLE: P-3 Modernization Program**

**PROJECT TITLE: P-3 Sensor Integration**

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. FY 1998 ACCOMPLISHMENTS:

(U) (\$ 500) Continued system engineering support for proper integration of new sensors.

(U) (\$1,838) Completed developmental and operational testing of Tactical Mission Software (TMS)/Airborne Operational Program (AOP) supporting Improved Extended Echo Ranging (IEER) integration and conduct Systems Requirements Review (SRR).

(U) (\$ 629) Aviation Depot Level Repairable (AVDLR).

(U) (\$2,432) Designed APS-137 upgrade for Precision Targeting and Enhanced Synthetic Aperture Radar (SAR) mode.

(U) (\$7,004) Designed workload sharing between tactical crew station and data fusion of off-board and on-board sensor data, as well as improve sensor capabilities.

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**PROJECT TITLE: P-3 Sensor Integration**

**2. FY 1999 PLAN:**

(U) (\$ 500) Continue system engineering support for proper integration of new sensors.

(U) (\$ 1,571) Continue IEER integration and conduct Preliminary Design Review (PDR) and Critical Design Review (CDR).

(U) (\$ 720) Aviation Depot Level Repairable (AVDLR).

(U) (\$ 37) Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 USC 638.

**3. FY 2000 PLAN:**

(U) (\$ 457) Continue system engineering support for proper integration of new sensors.

(U) (\$1,816) Continue IEER integration and testing.

(U) (\$ 737) Aviation Depot Level Repairable (AVDLR).

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**PROJECT TITLE: P-3 Sensor Integration**

(U) B. PROGRAM CHANGE SUMMARY

	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>
(U) FY 1999 President's Budget:	13,025	3,046	3,118
(U) Appropriated Value:	13,191	3,046	0
(U) Adjustments from Pres Budget:	-622	-218	-108
(U) FY 2000 President's Budget Submit:	12,403	2,828	3,010

FY 1998 includes \$9,436 thousand for Project Number H2417 (P-3 AIP Sensors).

CHANGE SUMMARY EXPLANATION:

(U) Funding: The net decrease of (-\$622 thousand) in FY 1998 includes a net decrease of -\$58 thousand for H1152 and a net decrease of -\$564 thousand for H2417. The net decrease of -\$58 thousand for H1152 includes an SBIR adjustment of -\$14 thousand and programmatic adjustments of -\$44 thousand. The net decrease of -\$564 thousand in H2417 reflects an SBIR adjustment of -\$267 thousand, and an Economic Assumption reduction of -\$22 thousand, a National Defense Missile reduction of -\$125 thousand, and a Navy flight Hours reduction of -\$150 thousand. The net decrease of -\$218 thousand in FY 1999 includes a Revised Economic Assessment of -\$7 thousand, a Civilian Personnel Under-execution adjustment of -\$4 thousand, and a Contract Advisory and Assistance Services adjustment of -\$207 thousand. The net decrease of (-\$108 thousand) in FY 2000 includes a technical budget re-balance adjustment of -\$5 thousand, a Full Institutional Funding adjustment of -\$56 thousand, a Civilian Pay Rates adjustment of +\$10 thousand, a Non Pay Inflation adjustment of -\$44 thousand, and a Navy Working Capital Fund (NWCF) adjustment of -\$13 thousand.

(U) Schedule: FY 2000 adds a new Program milestone for Radar Initial Operating Capability (IOC) in the 1st quarter, and a new Engineering milestone in the 3rd quarter for IEER Integration and Testing (I&T).

(U) Technical:

(U) C. OTHER PROGRAM FUNDING SUMMARY

<u>Appn</u>	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>To</u>
None.	Budget	Budget	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Complete

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**PROJECT TITLE: P-3 Sensor Integration**

Related RDT&E

(U) P.E. 0606261N (Acoustic Search Sensors developing software and acoustic algorithms).

(U) D. ACQUISITION STRATEGY: The Operational Requirements Document (Ser# 297(1)-05-97) for H1152 was approved on 29 December 1997. The 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.

(U) E. SCHEDULE PROFILE

	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>TO COMPLETE</u>
(U) Program Milestones		4Q/SEI IOC 2Q/ Software IOC 1Q/SEI CDR	1Q/Radar IOC	4Q01/IOC
(U) Engineering Milestones	3Q/IEER SRR 3Q/SEI IR 4Q/SEI PDR 3Q/Software IR 4Q/Software	1Q/IEER PDR 3Q/IEER CDR 1Q/SEI CDR 1Q/Radar PDR CDR 2Q/Radar CDR	3Q/IEER I&T	
(U) T&E Milestones		1Q/Software DT/OT 3Q/SEI DT/OT 4Q/Radar DT/OT		1Q-2Q01 IEER DTIII 3Q-4Q01 IEER OTIII
(U) Contract Milestones	2Q/Radar Mod 3Q/SEI Mod 3Q/Software Mod			

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EXHIBIT R-3, FY 2000 RDT&E,N COST ANALYSIS

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PROJECT NUMBER: H1152

PROJECT TITLE: P-3 Sensor Integration

<u>Cost Categories:</u>	<u>Contract Method &amp; Type</u>	<u>Performing Activity &amp; Location</u>	<u>Total Prior Yrs Cost</u>	<u>FY 1999 Cost</u>	<u>FY 1999 Award Date</u>	<u>FY 2000 Cost</u>	<u>FY 2000 Award Date</u>	<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>
<b>Subtotal Product Development</b>			0	0		0		0	0	
<b>Remarks:</b>										
Technical Support (CS)	C/FFP	RBC Arlington, VA	2,665	500	Nov 98	457	Nov 99	CONT	CONT	CONT
Systems Engineering Support	Various	Various	23,815	901	Nov 98	1,074	Nov 99	CONT	CONT	CONT
Systems Engineering Support	SS	LMTDS/ Eagan, MN	14,561	0						
Systems Engineering Support	C/FFP	RTIS/McK.,TX	2,432	0						
Systems Engineering Support	WX	NAWC/AD Pax River, MD		610	Nov-98	682	Nov-99	CONT	CONT	CONT
<b>Subtotal Support</b>			43,473	2,011		2,213		CONT	CONT	CONT

**Remarks:**

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EXHIBIT R-3, FY 2000 RDT&E,N COST ANALYSIS

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PROJECT TITLE: P-3 Sensor Integration

<b>Cost Categories:</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Yrs Cost</b>	<b>FY 1999 Cost</b>	<b>FY 1999 Award Date</b>	<b>FY 2000 Cost</b>	<b>FY 2000 Award Date</b>	<b>Cost to Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Test and Evaluation	WX	NAWC/AD Pax River	3,915	780	Nov 98	797	Nov 99	CONT	CONT	CONT
<b>Subtotal Test &amp; Evaluation</b>			<b>3,915</b>	<b>780</b>		<b>797</b>		<b>CONT</b>	<b>CONT</b>	<b>CONT</b>
<b>Remarks:</b>										
<b>Subtotal Management</b>			<b>0</b>	<b>0</b>		<b>0</b>		<b>0</b>	<b>0</b>	<b>0</b>
<b>Remarks:</b>										
FY 1999 SBIR Assessment				37					37	
<b>Total Cost</b>			<b>47,388</b>	<b>2,828</b>		<b>3,010</b>		<b>CONT</b>	<b>CONT</b>	<b>CONT</b>

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