

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification							DATE:		FEBRUARY 2004		
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY /						R-1 ITEM NOMENCLATURE 0604218N Air/Ocean Equipment Engineering					
BA-5											
COST (\$ in Millions)	Prior Years Cost		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	Cost to Complete	Total Program
Total PE Cost			7.332	3.041	4.506	4.563	5.696	5.813	5.931	CONT	CONT
2345 Fleet METOC Equipment			3.964	3.041	3.176	3.193	4.037	4.120	4.205	CONT	CONT
2346 METOC Sensor Engineering			1.463	0.000	1.330	1.370	1.659	1.693	1.726	CONT	CONT
9217 SPY-1 Radar Tactical Environmental Processor (TEP)			1.905	0.000	0.000	0.000	0.000	0.000	0.000		1.905
Quantity of RDT&E Articles											
<p>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The Air/Ocean Equipment Engineering (AOEE) Program Element provides future mission capabilities to support Naval combat forces. This program engineers and developmentally tests organic and remote sensors, communication interfaces, and processing and display devices. These equipments are engineered to measure, ingest, store, process, distribute and display conditions of the physical environment that are essential to the optimum employment and performance of Naval warfare systems. AOEE also engineers capabilities for shipboard and shore-based tactical systems. A major thrust area for the AOEE program is to provide the engineering development of specialized equipment and measurement capabilities that are intended to monitor specific conditions of the physical environment in hostile and remote areas. With such capabilities, the warfighters' situational awareness of the operational effects of the physical environment are made more certain.</p> <p>(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under ENGINEERING & MANUFACTURING DEVELOPMENT because it encompasses engineering and manufacturing development of new end-items prior to production approval decision. A congressional plus up for SPY-1 Radar Tactical Environmental Processor (TEP) was provided in FY03.</p>											

R-1 SHOPPING LIST - Item No. 88

UNCLASSIFIED

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 1 of 27)

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification								DATE: FEBRUARY 2004			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5		PROGRAM ELEMENT NUMBER AND NAME 0604218N Air/Ocean Equipment Engineering				PROJECT NUMBER AND NAME 2345 Fleet METOC Equipment					
COST (\$ in Millions)	Prior Years Cost		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	Cost to Complete	Total Program
Project Cost			3.964	3.041	3.176	3.193	4.037	4.120	4.205	Continuing	Continuing
RDT&E Articles Qty											0
<p>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project provides for the engineering and manufacturing development of sensors, communication interfaces, and processing and display equipment. This equipment is designed to provide future mission capabilities for warfighters to measure, ingest, store, process, distribute and display meteorological and oceanographic (METOC) parameters and derived products. Major emphasis areas include the Tactical Environmental Support System (TESS), and the associated Navy Integrated Tactical Environmental Subsystem (NITES), the Marine Corps Meteorological Mobile Facility (METMF), the AN/SMQ-11 satellite data receiver/recorder, shipboard weather radar capabilities, and the development of new sensors such as active and passive atmospheric profilers. This project also exploits new GOTS/COTS technologies and web enablement for the Navy's computer-based tactical shipboard and shore capability used to predict and assess the operational effects of the physical environment on the performance of platforms, weapons and sensor systems.</p>											

R-1 SHOPPING LIST - Item No. 88

UNCLASSIFIED

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 2 of 27)

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: FEBRUARY 2004													
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA 5	PROGRAM ELEMENT NUMBER AND NAME 0604218N Air Ocean Equipment Engineering	PROJECT NUMBER AND NAME 2345 Fleet METOC Equipment														
(U) B. Accomplishments/Planned Program																
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Object Oriented Data base Management</td> <td style="width: 15%;">FY 03</td> <td style="width: 15%;">FY 04</td> <td style="width: 15%;">FY 05</td> </tr> <tr> <td>Accomplishments/Effort/Subtotal Cost</td> <td>1.166</td> <td>0.781</td> <td>0.918</td> </tr> <tr> <td>RDT&E Articles Quantity</td> <td></td> <td></td> <td></td> </tr> </table>					Object Oriented Data base Management	FY 03	FY 04	FY 05	Accomplishments/Effort/Subtotal Cost	1.166	0.781	0.918	RDT&E Articles Quantity			
Object Oriented Data base Management	FY 03	FY 04	FY 05													
Accomplishments/Effort/Subtotal Cost	1.166	0.781	0.918													
RDT&E Articles Quantity																
<p>FY03: Completed engineering development of an object oriented database management system employing artificial intelligence technology. Began transition to web-enabled high-speed battlegroup data server.</p> <p>FY04: Continue transition to web-enabled high-speed battlegroup data server. Deliver technical report.</p> <p>FY05: Complete transition and deliver final version to web-enabled high-speed battlegroup data server. Continue development of Object Oriented Database Management engineering for next generation data server employing expert system techniques.</p>																
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Fleet System Engineering</td> <td style="width: 15%;">FY 03</td> <td style="width: 15%;">FY 04</td> <td style="width: 15%;">FY 05</td> </tr> <tr> <td>Accomplishments/Effort/Subtotal Cost</td> <td>1.090</td> <td>0.916</td> <td>0.748</td> </tr> <tr> <td>RDT&E Articles Quantity</td> <td></td> <td></td> <td></td> </tr> </table>					Fleet System Engineering	FY 03	FY 04	FY 05	Accomplishments/Effort/Subtotal Cost	1.090	0.916	0.748	RDT&E Articles Quantity			
Fleet System Engineering	FY 03	FY 04	FY 05													
Accomplishments/Effort/Subtotal Cost	1.090	0.916	0.748													
RDT&E Articles Quantity																
<p>FY03: Continued engineering development of fleet systems. Delivered NITES IV V1.0</p> <p>FY04: Continue development of fleet systems. Deliver test report for NITES I Upgrade.</p> <p>FY05: Continue development of fleet systems. Deliver Alternatives Study for the Next Generation Meteorological Mobile Facility.</p>																
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Lead Laboratory</td> <td style="width: 15%;">FY 03</td> <td style="width: 15%;">FY 04</td> <td style="width: 15%;">FY 05</td> </tr> <tr> <td>Accomplishments/Effort/Subtotal Cost</td> <td>0.631</td> <td>0.539</td> <td>0.627</td> </tr> <tr> <td>RDT&E Articles Quantity</td> <td></td> <td></td> <td></td> </tr> </table>					Lead Laboratory	FY 03	FY 04	FY 05	Accomplishments/Effort/Subtotal Cost	0.631	0.539	0.627	RDT&E Articles Quantity			
Lead Laboratory	FY 03	FY 04	FY 05													
Accomplishments/Effort/Subtotal Cost	0.631	0.539	0.627													
RDT&E Articles Quantity																
<p>FY03: Continued Lead Laboratory tasks of software integration, assisted model developers and provided technical assistance to other activities. Delivered Quarterly Reports.</p> <p>FY04: Continue Lead Laboratory tasks of software integration, assisting model developers and provide technical assistance to other activities. Deliver Quarterly Reports.</p> <p>FY05: Continue Lead Laboratory tasks of software integration, assisting model developers and provide technical assistance to other activities. Deliver Quarterly Reports.</p>																

R-1 SHOPPING LIST - Item No.

88

UNCLASSIFIED

Exhibit R-2, RDTE Budget Item Justification
(Exhibit R-2, page 3 of 27)

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: FEBRUARY 2004	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA 5	PROGRAM ELEMENT NUMBER AND NAME 0604218N Air Ocean Equipment Engineering	PROJECT NUMBER AND NAME 2345 Fleet METOC Equipment	
(U) B. Accomplishments/Planned Program			
Off-the-Shelf Technology	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	1.077	0.805	0.883
RDT&E Articles Quantity			
<div style="border: 1px solid black; padding: 5px;">FY03: Continued exploitation of off-the-shelf prototype hardware and other emerging technologies. Delivered Test Report for next generation antenna. FY04: Continue exploitation of off-the-shelf prototype hardware and other emerging technologies. Deliver TEDServices Initial Report. FY05: Continue exploitation of off-the-shelf prototype hardware and other emerging technologies. Deliver Evaluation Report for COTS Database.</div>			
	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.000	0.000	0.000
RDT&E Articles Quantity			
	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.000	0.000	0.000
RDT&E Articles Quantity			

R-1 SHOPPING LIST - Item No.

88

UNCLASSIFIED

Exhibit R-2a, RD TEN Project Justification
(Exhibit R-2a, page 4 of 27)

CLASSIFICATION:

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification

DATE:

FEBRUARY 2004

APPROPRIATION/BUDGET ACTIVITY

PROGRAM ELEMENT NUMBER AND NAME

PROJECT NUMBER AND NAME

RDT&E, N / BA-5

0604218N Air Ocean Equipment Engineering

2345 Fleet METOC Equipment

(U) C. PROGRAM CHANGE SUMMARY:

(U) Funding:	FY 2003	FY 2004	FY 2005
FY'04 President's Budget	4.090	3.079	3.443
FY'05 President's Budget	3.964	3.041	3.176
Total Adjustments	(0.126)	(0.038)	(0.267)

Summary of Adjustments

68849 FY 2003 Update	(0.042)	-	-
66556 FY03_SBIR	(0.084)	-	-
68041 Section 8094: Management Improvements	-	(0.008)	-
68060 Sec. 8029: FFRDC Reduction	-	(0.002)	-
68066 Sec. 8126: Efficiencies/Revised Econ. Assumptions	-	(0.026)	-
66961 SPAWAR Service Cost Center Adjustments	-	(0.002)	-
69025 WCF - R&D - SPAWAR	-	-	(0.001)
69026 WCF - R&D - NRL	-	-	(0.001)
69045 Rates - SSC	-	-	0.002
69046 Rates - NRL	-	-	0.001
69241 JBMC2	-	-	(0.200)
69492 Inflation	-	-	(0.008)
69512 Non purchase inflation	-	-	(0.002)
69606 Offset for Civpers FY04 Payrais	-	-	-
69707 FY 05 RD TEN Balancing	-	-	(0.002)
67689 MANPOWER	-	-	(0.051)
66961 SPAWAR Service Cost Center Adjustments	-	-	(0.002)
67766 NWCF Rates - NRL Rates	-	-	(0.001)
67767 NWCF Rates - SPAWAR SSC Rates	-	-	(0.002)
Subtotal	(0.126)	(0.038)	(0.267)

(U) Schedule:

Not Applicable

(U) Technical:

Not Applicable

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Exhibit R-2a, RD TEN Project Justification

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification								DATE: FEBRUARY 2004		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5		PROGRAM ELEMENT NUMBER AND NAME 0604218N Air Ocean Equipment Engineering			PROJECT NUMBER AND NAME 2345 Fleet METOC Equipment					
(U) D. OTHER PROGRAM FUNDING SUMMARY:										
<u>Line Item No. & Name</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>To Complete</u>	<u>Total Cost</u>	
OPN 4226 METEOROLOGICAL EQUIPMENT	27.142	25.393	20.134	25.851	22.647	27.357	30.69	CONT	CONT	
Related RDT&E: PE 0603207N, Air/Ocean Tactical Applications.										
(U) E. ACQUISITION STRATEGY:										
Acquisition, management and contracting strategies are to support engineering and manufacturing development by providing funds to Naval Research Laboratories and miscellaneous contractors, with management oversight by SPAWAR.										
(U) F. MAJOR PERFORMERS:										
N/A										

R-1 SHOPPING LIST - Item No. 88

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)								DATE: FEBRUARY 2004				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-5			0604218N Air Ocean Equipment Engineering			2345 Fleet METOC Equipment						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 03 Cost	FY 03 Award Date	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Software Development	WX	NRL		1.215	NA	0.862	NA	1.110	NA	CONT	CONT	
	WX	SSCs		0.775	NA	0.439	NA	0.446	NA	CONT		
	CP	RAYTHEON		0.235	NA	0.221	NA	0.224	NA	CONT		
	NA	MISC		1.521	NA	1.301	NA	1.178	NA	CONT		
Subtotal Product Development			0.000	3.746		2.823		2.958		CONT	CONT	
Remarks:												
Development Support	CP	SSA	1.000	0.156	TBD	0.156	TBD	0.156	TBD	CONT	CONT	
Subtotal Support			1.000	0.156		0.156		0.156		CONT	CONT	
Remarks:=-												

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CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)									DATE: FEBRUARY 2004			
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDTE, N / BA-5			0604218N Air Ocean Equipment Engineering			2345 Fleet METOC Equipment						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 03 Cost	FY 03 Award Date	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	PD	OPTEVFOR		0.062	N/A	0.062	N/A	0.062	N/A	CONT	CONT	
Subtotal T&E			0.000	0.062		0.062		0.062		CONT	CONT	
Remarks:												
Contractor Engineering Support											0.000	
Government Engineering Support											0.000	
Program Management Support											0.000	
Travel											0.000	
Transportation											0.000	
SBIR Assessment											0.000	
Subtotal Management			0.000	0.000		0.000		0.000		0.000	0.000	
Remarks:												
Total Cost				3.964		3.041		3.176		CONT	CONT	
Remarks:												

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EXHIBIT R4, Schedule Profile																			DATE:									
																			FEBRUARY 2004									
APPROPRIATION/BUDGET ACTIVITY					PROGRAM ELEMENT NUMBER AND NAME												PROJECT NUMBER AND NAME											
RDT&E, N / BA-5					0604218N Air Ocean Equipment Engineering												2345 Fleet METOC Equipment											
Fiscal Year	2003				2004				2005				2006				2007				2008				2009			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Obj Oriented DBMS (Database Management System)	▲			Web Enabled Data Server						▲						High Speed BG Server				▲		Emerging DBMS Technologies						▲
Fleet Sys Engineering	▲			Sys Engineering Upgrades						▲			▲				▲				▲				▲			▲
Lead Laboratory	▲			SW Engineering						▲			▲				▲				▲				▲			▲
Off-the-Shelf Technology				LINUX Cluster					▲							3/4-D Visual Accelerators							▲					

R-1 SHOPPING LIST - Item No. 88

* Not required for Budget Activities 1, 2, 3, and 6

UNCLASSIFIED

Exhibit R-3, Project Cost Analysis
(Exhibit R-3, page 9 of 27)

UNCLASSIFIED

CLASSIFICATION:

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R-1 SHOPPING LIST - Item No.

88

Exhibit R-4a, Schedule Detail
(Exhibit R-4a, page 10 of 27)

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification								DATE:				
								FEBRUARY 2004				
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME				PROJECT NUMBER AND NAME						
RDT&E, N / BA-5		0604218N Air/Ocean Equipment Engineering				2346 METOC Sensor Engineering						
COST (\$ in Millions)		Prior Years Cost		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	Cost to Complete	Total Program
Project Cost				1.463	0.000	1.330	1.370	1.659	1.693	1.726	Continuing	Continuing
RDT&E Articles Qty												0
<p>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project provides for the engineering and manufacturing development of specialized, high resolution instrumentation systems and measurement capabilities for obtaining near real-time, in-situ meteorological and oceanographic (METOC) data in hostile and remote areas. The project's objectives are to provide near-term future mission capabilities that are intended to ruggedize and package systems, sensors and instruments to survive the harsh littoral and deep-strike environments and also to meet demanding requirements for timeliness and accuracy. Engineering is performed within this project to ensure that air and safety certification for deployment from fleet aircraft or ships is met and that the proper data formats are employed for integration into existing or planned communications and displays. The end products are sensors and systems that will provide the tactical commander with near real-time, in-situ METOC data for operational use. In addition, this difficult to obtain data will provide important inputs for predictive models in areas of potential interest.</p>												

R-1 SHOPPING LIST - Item No. 88

UNCLASSIFIED

Exhibit R-4a, Schedule Detail
(Exhibit R-4a, page 11 of 27)

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: FEBRUARY 2004	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA 5	PROGRAM ELEMENT NUMBER AND NAME 0604218N Air Ocean Equipment Engineering	PROJECT NUMBER AND NAME 2346 METOC Sensor Engineering	
(U) B. Accomplishments/Planned Program			
Unmanned Aerial Vehicle METOC Sensors	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.360	0.000	0.000
RDT&E Articles Quantity			
<div style="border: 1px solid black; min-height: 60px; margin-top: 5px;"></div>			
Clandestine Sensors	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.400	0.000	0.463
RDT&E Articles Quantity			
<div style="border: 1px solid black; min-height: 80px; margin-top: 5px;"></div>			
MEASURE (Battlespace devices)	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.383	0.000	0.462
RDT&E Articles Quantity			
<div style="border: 1px solid black; min-height: 80px; margin-top: 5px;"></div>			

R-1 SHOPPING LIST - Item No.

88

UNCLASSIFIED

Exhibit R-4a, Schedule Detail
(Exhibit R-4a, page 12 of 27)

UNCLASSIFIED

CLASSIFICATION:

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA 5	PROGRAM ELEMENT NUMBER AND NAME 0604218N Air Ocean Equipment Engineering	PROJECT NUMBER AND NAME 2346 METOC Sensor Engineering		
(U) B. Accomplishments/Planned Program				
Unmanned Underwater Vehicle Sensors	FY 03	FY 04	FY 05	
Accomplishments/Effort/Subtotal Cost	0.320	0.000	0.405	
RDT&E Articles Quantity				
<div style="border: 1px solid black; padding: 5px;"> FY03: Completed engineering development of intelligent sensor suite for Unmanned Undersea Vehicles. Continued development of Unmanned Underwater Vehicle Sensors engineering for tactical acoustic measurement buoy. FY04: Project not funded in FY04 FY05: Continue development of Unmanned Underwater Vehicle Sensors engineering for tactical acoustic measurement buoy. Deliver Technical Reports. </div>				
	FY 03	FY 04	FY 05	
Accomplishments/Effort/Subtotal Cost	0.000	0.000	0.000	
RDT&E Articles Quantity				
	FY 03	FY 04	FY 05	
Accomplishments/Effort/Subtotal Cost	0.000	0.000	0.000	
RDT&E Articles Quantity				

R-1 SHOPPING LIST - Item No.

88

UNCLASSIFIED

Exhibit R-2a, RDTEN Project Justification
(Exhibit R-2a, page 13 of 27)

UNCLASSIFIED

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<p>(U) C. PROGRAM CHANGE SUMMARY:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 40%;"></th> <th style="text-align: right; width: 15%;">FY 2003</th> <th style="text-align: right; width: 15%;">FY 2004</th> <th style="text-align: right; width: 15%;">FY 2005</th> </tr> </thead> <tbody> <tr> <td>(U) Funding:</td> <td></td> <td></td> <td></td> </tr> <tr> <td>FY'04 President's Budget</td> <td style="text-align: right;">1.509</td> <td style="text-align: right;">1.230</td> <td style="text-align: right;">1.336</td> </tr> <tr> <td>FY'05 President's Budget</td> <td style="text-align: right;">1.463</td> <td style="text-align: right;">-</td> <td style="text-align: right;">1.330</td> </tr> <tr> <td>Total Adjustments</td> <td style="text-align: right; border-top: 1px solid black;">(0.046)</td> <td style="text-align: right; border-top: 1px solid black;">(1.230)</td> <td style="text-align: right; border-top: 1px solid black;">(0.006)</td> </tr> <tr> <td colspan="4" style="padding-top: 10px;">Summary of Adjustments</td> </tr> <tr> <td>68423 Integration of Metrological and Oceanographic Se</td> <td style="text-align: right;">-</td> <td style="text-align: right;">(1.230)</td> <td style="text-align: right;">-</td> </tr> <tr> <td>65724 Inflation Savings</td> <td style="text-align: right;">(0.016)</td> <td style="text-align: right;">-</td> <td style="text-align: right;">-</td> </tr> <tr> <td>69492 PBD-604 Inflation</td> <td style="text-align: right;">-</td> <td style="text-align: right;">-</td> <td style="text-align: right;">(0.004)</td> </tr> <tr> <td>69512 PBD604 non purchase inflation</td> <td style="text-align: right;">-</td> <td style="text-align: right;">-</td> <td style="text-align: right;">(0.001)</td> </tr> <tr> <td>69707 FY 05 ITR RDTEN Balancing</td> <td style="text-align: right;">-</td> <td style="text-align: right;">-</td> <td style="text-align: right;">(0.001)</td> </tr> <tr> <td>66556 FY03_SBIR_5-May-03</td> <td style="text-align: right;">(0.030)</td> <td style="text-align: right;">-</td> <td style="text-align: right;">-</td> </tr> <tr> <td>Subtotal</td> <td style="text-align: right; border-top: 1px solid black;">(0.046)</td> <td style="text-align: right; border-top: 1px solid black;">(1.230)</td> <td style="text-align: right; border-top: 1px solid black;">(0.006)</td> </tr> </tbody> </table> <p style="margin-top: 20px;">(U) Schedule: Not Applicable</p> <p style="margin-top: 40px;">(U) Technical: Not Applicable</p>					FY 2003	FY 2004	FY 2005	(U) Funding:				FY'04 President's Budget	1.509	1.230	1.336	FY'05 President's Budget	1.463	-	1.330	Total Adjustments	(0.046)	(1.230)	(0.006)	Summary of Adjustments				68423 Integration of Metrological and Oceanographic Se	-	(1.230)	-	65724 Inflation Savings	(0.016)	-	-	69492 PBD-604 Inflation	-	-	(0.004)	69512 PBD604 non purchase inflation	-	-	(0.001)	69707 FY 05 ITR RDTEN Balancing	-	-	(0.001)	66556 FY03_SBIR_5-May-03	(0.030)	-	-	Subtotal	(0.046)	(1.230)	(0.006)
	FY 2003	FY 2004	FY 2005																																																				
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FY'04 President's Budget	1.509	1.230	1.336																																																				
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R-1 SHOPPING LIST · 88

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE:	FEBRUARY 2004
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME	
RDT&E, N / BA-5	0604218N Air Ocean Equipment Engineering	2346 METOC Sensor Engineering	
<p>(U) D. OTHER PROGRAM FUNDING SUMMARY:</p> <p>Related RDT&E: PE 0603207N (Air/Ocean Tactical Applications), PE0602435N (Ocean and Atmospheric Technology)</p> <p>(U) E. ACQUISITION STRATEGY:</p> <p>Acquisition and contracting strategies are to support engineering and manufacturing development of specialized, high resolution instrumentation systems and measurement techniques for obtaining near real-time in-situ meteorological and oceanographic (METOC) data in denied or remote areas by providing funds to NAVAIR and miscellaneous contractors, with management oversight by SPAWAR.</p> <p>(U) F. MAJOR PERFORMERS:</p> <p>N/A</p>			

R-1 SHOPPING LIST - Item No. 88

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CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)								DATE: FEBRUARY 2004				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-5			0604218N Air Ocean Equipment Engineering			2346 METOC Sensor Engineering						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 03 Cost	FY 03 Award Date	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Software Development	WX	NRL		0.053	NA	0.000	NA	0.053	NA	CONT	CONT	
	NA	MISC		1.410	NA	0.000	NA	1.277	NA		2.687	
											0.000	
											0.000	
											0.000	
											0.000	
											0.000	
											0.000	
											0.000	
											0.000	
Subtotal Product Development			0.000	1.463		0.000		1.330		CONT	CONT	
Remarks:												
Development Support				0.000		0.000		0.000			0.000	
Software Development											0.000	
Integrated Logistics Support											0.000	
Configuration Management											0.000	
Technical Data											0.000	
Studies & Analyses											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal Support			0.000	0.000		0.000		0.000		0.000	0.000	
Remarks:												

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CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)								DATE: FEBRUARY 2004				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDTE, N / BA-5			0604218N Air Ocean Equipment Engineering			2346 METOC Sensor Engineering						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 03 Cost	FY 03 Award Date	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation			0.000	0.000		0.000		0.000			0.000	
Operational Test & Evaluation											0.000	
Live Fire Test & Evaluation											0.000	
Test Assets											0.000	
Tooling											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal T&E			0.000	0.000		0.000		0.000		0.000	0.000	
Remarks:												
Contractor Engineering Support											0.000	
Government Engineering Support											0.000	
Program Management Support											0.000	
Travel											0.000	
Transportation											0.000	
SBIR Assessment											0.000	
Subtotal Management			0.000	0.000		0.000		0.000		0.000	0.000	
Remarks:												
Total Cost			0.000	1.463		0.000		1.330		CONT	CONT	
Remarks:												

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2

CLASSIFICATION:

EXHIBIT R4, Schedule Profile																				DATE:												
																				FEBRUARY 2004												
APPROPRIATION/BUDGET ACTIVITY					PROGRAM ELEMENT NUMBER AND NAME												PROJECT NUMBER AND NAME															
RDT&E, N / BA-5					0604218N Air Ocean Equipment Engineering												2346 METOC Sensor Engineering															
Fiscal Year	2003				2004				2005				2006				2007				2008				2009							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
UAV METOC Sensors (Unmanned Aerial Vehicle)	Ultralight UAV Sensors																															
Clandestine Sensors					Autonomous Sensor Engineering												Air Deployed Micro-sensors															
MEASURE	MEASURE Interface								Wave Buoy Upgrades								Tactical Acoustic Buoy															
UUV Sensors Unmanned Underwater Vehicle	ARIES AUV (Autonomous Unmanned Vehicle)								Micro AUV								Stealth AUV								Next Generation ROV							

R-1 SHOPPING LIST - Item No. 88

* Not required for Budget Activities 1, 2, 3, and 6

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Exhibit R-3, Project Cost Analysis
(Exhibit R-3, page 18 of 27)

UNCLASSIFIED

CLASSIFICATION:

[illegible]

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification								DATE:			
								FEBRUARY 2004			
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME				PROJECT NUMBER AND NAME					
RDT&E, N / BA-5		0604218N Air/Ocean Equipment Engineering				9217 SPY-1 Tactical Environmental Processor (TEP)					
COST (\$ in Millions)	Prior Years Cost		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	Cost to Complete	Total Program
Project Cost	0.000		1.905	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.905
RDT&E Articles Qty											0
<p>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: A congressional plus up for SPY-1 Radar Tactical Environmental Processor (TEP) was provided in FY03. This project provides for the SPY-1 Tactical Environmental Processor (TEP) , an operational system which provides timely characterization of rapidly changing environment surrounding the battlegroup, to automatically optimize weapon and sensor performance and to supply the tactical decision maker with accurate assessment of the capability for the weapon system to complete its mission. The U.S. Navy in partnership has developed an advanced radar processor that extracts detailed environmental weather measurements (currently considered radar clutter) from existing surveillance radars. Using normally scheduled radar dwells, TEP simultaneously generates both real spectral moment measurements of the environment surrounding the battlegroup to create high-resolution weather radar data comparable to that of NEXRAD, the National Weather Service's most advanced Doppler radar. It also generates real-time clutter characterization for use in optimizing weapons and sensors, and for identifying factors limiting their performance.</p>											

R-1 SHOPPING LIST - Item No. 88

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Exhibit R-4a, Schedule Detail
(Exhibit R-4a, page 20 of 27)

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: FEBRUARY 2004	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA 5	PROGRAM ELEMENT NUMBER AND NAME 0604218N Air Ocean Equipment Engineering	PROJECT NUMBER AND NAME 9217 SPY-1 Tactical Environmental Processor (TEP)	
(U) B. Accomplishments/Planned Program			
SPY-1 Tactical Environmental Processor (TEP)	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	1.905	0.000	0.000
RDT&E Articles Quantity			
FY03: Complete upgrade for prototype hardware and software to operational status to provide operational status for meteorological conditions.			
	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.000	0.000	0.000
RDT&E Articles Quantity			
	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.000	0.000	0.000
RDT&E Articles Quantity			

R-1 SHOPPING LIST - Item No.

88

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: FEBRUARY 2004	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604218N Air Ocean Equipment Engineering	PROJECT NUMBER AND NAME 9217 SPY-1 Tactical Environmental Processor (TEP)	
(U) C. PROGRAM CHANGE SUMMARY:			
(U) Funding:	FY 2003	FY 2004	FY 2005
Congressional Add	2.000	-	-
FY'05 President's Budget	1.905	-	-
Total Adjustments	(0.095)	0.000	0.000
Summary of Adjustments			
64822 Business Reform (SEC 8100)	(0.008)	-	-
64823 Economic Assumptions (SEC 8135)	(0.011)	-	-
64971 IT Cost Growth	(0.004)	-	-
65724 Inflation Savings	(0.021)	-	-
66556 FY03_SBIR	(0.051)	-	-
Subtotal	(0.095)	0.000	0.000
(U) Schedule:			
Not Applicable			
(U) Technical:			
Not Applicable			

R-1 SHOPPING LIST - 88

UNCLASSIFIED

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE:	FEBRUARY 2004
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME	
RDT&E, N / BA-5	0604218N Air Ocean Equipment Engineering	9217 SPY-1 Tactical Environmental Processor (TEP)	
<p>(U) D. OTHER PROGRAM FUNDING SUMMARY:</p> <p>Related RDT&E: PE 0603207N (Air/Ocean Tactical Applications), PE0602435N (Ocean and Atmospheric Technology)</p> <p>(U) E. ACQUISITION STRATEGY:</p> <p>Acquisition and contracting strategies are to support engineering and manufacturing development of specialized, high resolution instrumentation systems and measurement techniques for obtaining near real-time in-situ meteorological and oceanographic (METOC) data in denied or remote areas by providing funds to NAVAIR and miscellaneous contractors, with management oversight by SPAWAR.</p> <p>(U) F. MAJOR PERFORMERS:</p> <p>N/A</p>			

R-1 SHOPPING LIST - Item No. 88

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CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)								DATE: FEBRUARY 2004				
APPROPRIATION/BUDGET ACTIVITY RD&E, N / BA-5			PROGRAM ELEMENT 0604218N Air Ocean Equipment Engineering			PROJECT NUMBER AND NAME 9217 SPY-1 Tactical Environmental Processor (TEP)						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 03 Cost	FY 03 Award Date	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Software Development	WX	SSC SD	0.000	0.200	NA	0.000	NA	0.000	NA		0.200	
Software Engineering	PD	NAVSEA/LOCKHEED MART	0.000	1.705	NA	0.000	NA	0.000	NA		1.705	
											0.000	
											0.000	
											0.000	
											0.000	
											0.000	
											0.000	
											0.000	
											0.000	
											0.000	
Subtotal Product Development			0.000	1.905		0.000		0.000		0.000	1.905	
Remarks:												
Development Support				0.000		0.000		0.000			0.000	
Software Development											0.000	
Integrated Logistics Support											0.000	
Configuration Management											0.000	
Technical Data											0.000	
Studies & Analyses											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal Support			0.000	0.000		0.000		0.000		0.000	0.000	
Remarks:												

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CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)										DATE: FEBRUARY 2004		
APPROPRIATION/BUDGET ACTIVITY RDTE, N / BA-5			PROGRAM ELEMENT 0604218N Air Ocean Equipment Engineering			PROJECT NUMBER AND NAME 9217 SPY-1 Tactical Environmental Processor (TEP)						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 03 Cost	FY 03 Award Date	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation			0.000	0.000		0.000		0.000			0.000	
Operational Test & Evaluation											0.000	
Live Fire Test & Evaluation											0.000	
Test Assets											0.000	
Tooling											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal T&E			0.000	0.000		0.000		0.000		0.000	0.000	
Remarks:												
Contractor Engineering Support											0.000	
Government Engineering Support											0.000	
Program Management Support											0.000	
Travel											0.000	
Transportation											0.000	
SBIR Assessment											0.000	
Subtotal Management			0.000	0.000		0.000		0.000		0.000	0.000	
Remarks:												
Total Cost			0.000	1.905		0.000		0.000		#VALUE!	#VALUE!	

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2

CLASSIFICATION:

EXHIBIT R4, Schedule Profile																				DATE:								FEBRUARY 2004							
APPROPRIATION/BUDGET ACTIVITY					PROGRAM ELEMENT NUMBER AND NAME												PROJECT NUMBER AND NAME																		
RDT&E, N / BA-5					0604218N Air Ocean Equipment Engineering												9217 SPY-1 Tactical Environmental Processor (TEP)																		
Fiscal Year	2003				2004				2005				2006				2007				2008				2009										
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4							
Spy-1 Tactical Environmental Processor																																			

SYSTEM ENGINEERING
AND DESIGN

R-1 SHOPPING LIST - Item No. 88

* Not required for Budget Activities 1, 2, 3, and 6

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Exhibit R-3, Project Cost Analysis
(Exhibit R-3, page 26 of 27)

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