

UNCLASSIFIED

EXHIBIT R-2, RDT&E Budget Item Justification

DATE:

February 2006

APPROPRIATION/BUDGET ACTIVITY

RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY /

BA 5

R-1 ITEM NOMENCLATURE

0604261N, ACOUSTIC SEARCH SENSORS

COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
Total PE Cost	14.418	33.569	36.764	45.043	38.000	54.916	54.906	
0480 ASW SENSORS & PROC	11.731	17.057	8.426	8.590	23.969	41.019	41.041	
4017 ARPDD	2.687	12.012	28.338	36.453	14.031	13.897	13.865	
9999 Congressional Adds		4.500						

FY2005 budget reflects a \$1.400 million Congressional add for Littoral Airborne Acoustic ASW Enhancements, which has been reduced by \$.056 million for Congressional Undistributed Reductions.

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

(U) (0480) - The ASW Sensors and Processing project provides the tools and methods necessary to maintain maritime superiority by preventing hostile submarines from disrupting the US Navy's ability to control the sea lines of communication and carry out their missions. This project encompasses the System Development and Demonstration (SDD) of sensor systems to improve the mission effectiveness of airborne Anti-Submarine Warfare (ASW) cueing, search, localization, and track. Smaller and quieter threat submarines drive the requirement for continued advancement in ASW sensor capabilities for both blue water and littoral environments. The littoral regions of the world create an additional ASW challenge to defeat the increase in background clutter caused by the shallow water depth, high volume of shipping, and commercial radio frequency interference. Project 0480 provides funding for the engineering development of solutions that acquire, confirm, and track threat submarines. Efforts being funded during the period identified are the Extended Echo Ranging (EER) family of multi-static active sensor systems and the Advanced Processing Build (APB) programs. Multi-static ASW (MSA) sensor systems provide improved threat target detection capabilities for shallow water littoral environments. The development efforts funded during the period identified include the Improved Extended Echo Ranging (IEER) multi-static search receiver sensor for active large area ASW search; the Advanced Extended Echo Ranging (AEER) active coherent (electronic) sound source, a new start in FY09, which provides a search and localization capability in all water environments and could eliminate current impulsive source safety, training and Rules of Engagement restrictions; and Advanced Processing Builds which provide signal processing improvements to achieve increased target detection and classification capabilities. A technology adjunct to these programs include Sonobuoy Precise Positioning.

(U) (4017) - The Automatic Radar Periscope Detection and Discrimination (ARPDD) Project provides a fully automated periscope detection, classification, and tracking capability to reliably detect periscopes and masts, and reliably discriminate periscopes from clutter and confusion targets. This capability is suitable for air and surface platforms. This project funds only the airborne application.

(U) (9999) - Congressional Adds.

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EXHIBIT R-2a, RDT&E Project Justification								DATE:
								February 2006
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME			PROJECT NUMBER AND NAME				
RDT&E, N /	BA 5			0604261N, ACOUSTIC SEARCH SENSORS				
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
0480 ASW SENSORS & PROC	11.731	17.057	8.426	8.590	23.969	41.019	41.041	
RDT&E Articles Qty					300	300	300	
<p>FY2005 budget reflects a \$1.400 million Congressional add for Littoral Airborne Acoustic ASW Enhancements, which has been reduced by \$.056 million for Congressional Undistributed Reductions.</p> <p>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The ASW Sensors and Processing project provides the tools and methods necessary to maintain superiority by preventing hostile submarines from disrupting the US Navy's ability to control the sea lines of communication and carry out their missions. This project encompasses the System Development and Demonstration (SDD) of sensor systems to improve the mission effectiveness of airborne Anti-Submarine Warfare (ADW) cueing, search, localization, and track. Smaller and quieter threat submarines drive the requirement for continued advancement in ASW sensor capabilities for both blue water and littoral environments. The littoral regions of the world create an additional ASW challenge to defeat the increase in background clutter caused by the shallow water depth, high volume of shipping, and commercial radio frequency interference. Project 0480 provides funding for the engineering development of solutions that acquire, confirm, and track threat submarines. Efforts being funded during the period identified are the Extended Echo Ranging (EER) family of shallow water littoral environments. The development efforts funded during the period identified include the Improved Extended Echo Ranging (IEER) multi-static search receiver sensor for active large area ASW search; the Advanced Extended Echo Ranging (AEER) active coherent (electronic) sound source, a new start in FY09, which provides a search and localization capability in all water environments and could eliminate current impulsive source safety, training and Rules of Engagement restrictions; and Advanced Processing Builds which provide signal processing improvements to achieve increased target detection and classification capabilities. The 900 sonobuoy test articles will support software and hardware integration flight tests and Technical Evaluation (TECHEVAL)/Operational Evaluation (OPEVAL) for AEER Block 1.</p>								

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EXHIBIT R-2a, RDT&E Project Justification				DATE: February 2006
APPROPRIATION/BUDGET ACTIVITY RDTE, N /		PROGRAM ELEMENT NUMBER AND NAME 0604261N, ACOUSTIC SEARCH SENSORS		PROJECT NUMBER AND NAME 0480, ASW SENSORS & PROC
B. ACCOMPLISHMENTS / PLANNED PROGRAM:				
	FY 2005	FY 2006	FY 2007	
Accomplishments / Effort / Sub-total Cost	1.344			
RDTE Articles Qty				
Evaluate and prototype the algorithms and displays that should be considered for use with the USQ-78B. Implement and integrate the algorithms and displays into the USQ-78B system, and demonstrate their tactical utility.				
	FY 2005	FY 2006	FY 2007	
Accomplishments / Effort / Sub-total Cost	10.387	17.057	8.426	
RDTE Articles Qty				
Software development, integration, and test for Multi-Static ASW (MSA) sensor systems. Provides P-3 platform integration of multi-static technology improvements allowing increased weapons system efficiency and decreased fleet operator workload in the littoral ASW mission.				

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EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2006		
APPROPRIATION/BUDGET ACTIVITY RDTE, N /		PROGRAM ELEMENT NUMBER AND NAME BA 5		PROJECT NUMBER AND NAME 0604261N, ACOUSTIC SEARCH SENSORS		PROJECT NUMBER AND NAME 0480, ASW SENSORS & PROC			
C. PROGRAM CHANGE SUMMARY									
Funding:		FY 2005	FY 2006	FY 2007					
Previous President's Budget:		11.781	17.323	8.207					
Current BES / President's Budget:		11.731	17.057	8.426					
Total Adjustments		-0.050	-0.266	0.219					
Summary of Adjustments									
Congressional Reductions									
Congressional Rescissions									
Congressional Undistributed Reductions		-0.177	-0.187						
Congressional Increases									
Economic Assumptions			-0.079						
Miscellaneous Adjustments		0.127		0.219					
Subtotal		-0.050	-0.266	0.219					
Schedule: 1Q-FY08, added in Multistatic ASW contract award to provide additional program definiton.									
Technical: N/A									
D. OTHER PROGRAM FUNDING SUMMARY:									
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Cost
(U) OPN (404800) SSQ -110B	1.1	5.1	4.0						
(U) P.E. 0603254N (ASW Systems Dev)									
E. ACQUISITION STRATEGY: The integration of Multi-Static ASW (MSA) into increased number of P-3 Aircraft can be achieved as an option under the current MSA contracts. Various alternatives of MSA implementation are also being investigated that could require Full and Open competition.									

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Exhibit R-3 Cost Analysis (page 1)									DATE:		February 2006		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N /		PROGRAM ELEMENT 0604261N, ACOUSTIC SEARCH SENSORS				PROJECT NUMBER AND NAME 0480, ASW SENSORS & PROC							
	Contract Method & Type		Total PY s Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract	
Cost Categories		Performing Activity & Location											
PRODUCT DEVELOPMENT													
Primary Hardware Development	C-CPFF	TBD	1.000							26.000	27.000	27.000	
SUBTOTAL PRODUCT DEVELOPMEN			1.000							26.000	27.000		
Remarks:													
SUPPORT													
Software Development	C-CPFF	LOCKHEED MARTIN CORPORATION, MANASSAS, VA		.490	2/28/2005						.490	.490	
Software Development (Phase II)	WX	NAWCAD, PATUXENT RIVER MD	1.000	.995	11/30/2004	2.600	10/31/2005	2.100	10/31/2006	43.284	49.979		
Software Development (Phase IIA)	WX	NAWCAD, PATUXENT RIVER MD		1.144	11/30/2004						1.144		
Studies & Analyses	C-CPFF	LOCKHEED MARTIN CORPORATION, MANASSAS, VA		.200	2/28/2005						.200	.200	
Technical Data	WX	NAWCAD, PATUXENT RIVER MD	4.382	1.317	10/31/2004	1.630	10/31/2005	.900	10/31/2006	9.400	17.629		
SUBTOTAL SUPPORT			5.382	4.146		4.230		3.000		52.684	69.442		
Remarks:													
TEST & EVALUATION													
Dev Test & Eval	WX	NAWCAD, PATUXENT RIVER MD	3.200	.400	10/31/2004	.750	11/30/2005	.750	11/30/2006	3.850	8.950		
SUBTOTAL TEST & EVALUATION			3.200	.400		.750		.750		3.850	8.950		
Remarks:													
MANAGEMENT													
Contractor Engineering Support	VARIOUS	VARIOUS	2.861	2.290	11/30/2004	3.993	10/31/2005	1.296	10/31/2006	11.502	21.942	21.942	
Government Engineering Support	WX	NAWCAD, PATUXENT RIVER MD	54.872	4.347	10/31/2004	7.194	10/31/2005	2.480	10/31/2006	16.858	85.751		
Program Mgmt Support (Cont.)	C-FFP	VARIOUS	40.085	.398	12/31/2004	.700	11/30/2005	.700	11/30/2006	2.800	44.683	44.683	
Program Mgmt Support (Gov.)	WX	NAWCAD, PATUXENT RIVER MD	7.023	.150	10/31/2004	.190	10/31/2005	.200	10/31/2006	.925	8.488		
SUBTOTAL MANAGEMENT			104.841	7.185		12.077		4.676		32.085	160.864		
Remarks:													
Total Cost			114.423	11.731		17.057		8.426		114.619	266.256		
Remarks:													

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EXHIBIT R4, Schedule Profile

DATE:

Multi-Static Active**February 2006**

APPROPRIATION/BUDGET ACTIVITY

PROGRAM ELEMENT NUMBER AND NAME

PROJECT NUMBER AND NAME

RDT&E, N /**BA-5**

0604261N, ACOUSTIC SEARCH SENSORS

0480, ASW SENSORS & PROC

Fiscal Year	FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011							
	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	1	2	3	4
Acquisition Milestones													MSA Integration Contract △																			
Prototype Phase																																
System Development				MSA Integration CDR △																												
EDM Delivery																																
Software Development/Integration									Start APB Development △							APB (1) S/W release △								APB (2) S/W release △								
Test & Evaluation Milestones																																
Development Test													MSA Integration TECH EVAL △																			
Operational Test																																
Production Milestones																																
LRIP I FY 05																																
LRIP II FY 06																																
FRP FY 07																																
Deliveries																																

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CLASSIFICATION:

Exhibit R-4a, Schedule Detail

Multi-Static Active

DATE:

February 2006

[illegible]

PROGRAM ELEMENT	DESCRIPTION	UNIT	GRADE	SEMESTER	TEACHER
1. Introduction to the Program	Overview of the program and its goals.	1	9	1	Mr. Smith
2. Fundamentals of Chemistry	Basic concepts and principles of chemistry.	2	9	2	Ms. Jones
3. Organic Chemistry	Study of carbon compounds and their reactions.	3	10	1	Mr. Smith
4. Inorganic Chemistry	Study of non-carbon compounds and their properties.	4	10	2	Ms. Jones
5. Physical Chemistry	Study of the physical properties and behavior of matter.	5	11	1	Mr. Smith
6. Biochemistry	Study of chemical processes within living organisms.	6	11	2	Ms. Jones
7. Environmental Chemistry	Study of chemical interactions in the environment.	7	12	1	Mr. Smith
8. Analytical Chemistry	Study of methods for identifying and quantifying substances.	8	12	2	Ms. Jones

PROJECT NUMBER AND NAME

RDT&BA-5

0604261N, ACOUSTIC SEARCH SENSORS

0480, ASW SENSORS & PROC

Schedule Profile

FY 2005

FY 2006

FY 2007

FY 2008

FY 2009

FY 2010

FY 2011

Integration Contract

1Q

4Q

2Q

3Q

3Q

Technical Evaluation (TECHEVAL)

2Q

Software Qualification Test (SQT)

1Q

1Q

Operational Evaluation (OT-IIC) (OPEVAL)

4Q

CLASSIFICATION:

EXHIBIT R4, Schedule Profile

Advanced Extended Echo Ranging (AEER)

DATE:

February 2006

APPROPRIATION/BUDGET ACTIVITY

RDT&E, N /**BA-5**

PROGRAM ELEMENT NUMBER AND NAME

0604261N, ACOUSTIC SEARCH SENSORS

PROJECT NUMBER AND NAME

0480, ASW SENSORS & PROC

Fiscal Year	FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011							
	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	1	2	3	4
Acquisition Milestones																	MS B △															
System Development Localization SL																					CDR (blk 1) △											
EDM Delivery																					H/W EDM (blk 1) △											
Software Integration																																
Test & Evaluation Milestones																																
Developmental Test																																
Production Milestones																																

Note: AEER, is a spiral upgrade development effort consisting of two block builds. Block 1 is to develop and produce a Coherent Source buoy to provide a multi-static active localization system capability.

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CLASSIFICATION:

Exhibit R-4a, Schedule Detail

Advanced Extended Echo Ranging (AEER)

DATE:

February 2006

[illegible]

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R-1 Shopping List Item No 94

Exhibit R-2 RD TEN Budget Item Justification
(Exhibit R-2, Page 9)

CLASSIFICATION:																																
EXHIBIT R4, Schedule Profile																												DATE:				
Littoral Airborne Acoustic ASW Enhancements																												February 2006				
APPROPRIATION/BUDGET ACTIVITY												PROGRAM ELEMENT NUMBER AND NAME												PROJECT NUMBER AND NAME								
RDT&E, N / BA-5												0604261N, ACOUSTIC SEARCH SENSORS												0480, ASW SENSORS & PROC								
Fiscal Year	FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011							
	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	1	2	3	4
Acquisition Milestones																																
Prototype Phase		△	△																													
System Development		△		△																												
Software 1XX S/W Delivery 2XX S/W Delivery			△	△																												
Test & Evaluation Milestones																																
Demonstration				△																												
Production Milestones																																

Exhibit R-4a, Schedule Detail

APPROPRIATION/BUDGET ACTIVITY

Schedule Profile

Prototype Ph

System Development

Software Delivery 1XX

Software Delivery 2XX

Demonstration

PROGRAM ELEMENT

0604261N Acoustic Search Sensors

FY 2005

2Q-3Q

2Q-4Q

3Q

$$\frac{4Q}{10}$$

4Q

FY 2006

FY 2008

PROJECT NUMBER AND NAME

0480 ASW Sensors & Processing

	FY 2009
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DATE:

February 2006

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EXHIBIT R-2a, RDT&E Project Justification								DATE: February 2006															
APPROPRIATION/BUDGET ACTIVITY RDT&E, N /			PROGRAM ELEMENT NUMBER AND NAME BA 5 0604261N, ACOUSTIC SEARCH SENSORS				PROJECT NUMBER AND NAME 4017, ARPDD																
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011																
4017 ARPDD	2.687	12.012	28.338	36.453	14.031	13.897	13.865																
RDT&E Articles Qty						1	1																
<p>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The Automatic Radar Periscope Detection and Discrimination (ARPDD) Project provides a fully automated periscope detection, classification, and tracking capability to reliably detect periscopes and masts, and reliably discriminate periscopes from clutter and confusion targets. This capability is suitable for air and surface platforms. This project funds only the airborne application. This capability is essential for effective detection of submarines in congested Littoral areas. This funding is for engineering development and evolutionary application of the ARPDD capability to Airborne radars. Test articles / pre-production units will be provided for systems integration, and development and operational testing. Testing will be performed to support a production decision.</p>																							
<p>B. ACCOMPLISHMENTS / PLANNED PROGRAM:</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr> <td style="width: 25%;"></td> <td style="width: 5%;">FY 2005</td> <td style="width: 5%;">FY 2006</td> <td style="width: 5%;">FY 2007</td> <td style="width: 5%;"></td> </tr> <tr> <td>Accomplishments / Effort / Sub-total Cost</td> <td>2.687</td> <td>12.012</td> <td>28.338</td> <td></td> </tr> <tr> <td>RDT&E Articles Qty</td> <td></td> <td></td> <td></td> <td></td> </tr> </table> <div style="border: 1px solid black; padding: 10px; margin-top: 10px;"> <p>ARPDD is a follow -on to a Science and Technology program previously funded by the Office of Naval Research in PE0603747N. Funding is being used for project planning, acquisition documentation preparation, performing technical trade-off studies, developing specifications, and a Statement of Work in preparation for awarding a contract for development of an airborne ARPDD capability. Funding will be used to award a development contract for ARPDD System Development and Demonstration (SDD) and associated government support.</p> </div>										FY 2005	FY 2006	FY 2007		Accomplishments / Effort / Sub-total Cost	2.687	12.012	28.338		RDT&E Articles Qty				
	FY 2005	FY 2006	FY 2007																				
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EXHIBIT R-2a, RDT&E Project Justification								DATE: February 2006																																																																																																																																			
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Schedule: Reduction in funding over FYDP; delays development schedule and reduces scope of effort.																																																																																																																																											
Technical: N/A																																																																																																																																											
D. OTHER PROGRAM FUNDING SUMMARY:																																																																																																																																											
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Line Item #36 (APN P-3 OSIP 29-94)	0.0	0.0	0.0																																																																																																																																								
PE# 0204251N																																																																																																																																											
E. ACQUISITION STRATEGY: Analyze merits of sole source versus competitive procurement. Explore Alternatives. Award prime contract to TBD contractor. Technical support will be provided by NAWCWD (China Lake) and JHU/APL.																																																																																																																																											

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Exhibit R-3 Cost Analysis (page 1)									DATE:		February 2006		
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT				PROJECT NUMBER AND NAME							
RDT&E, N /		0604261N, ACOUSTIC SEARCH SENSORS				4017, ARPDD							
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract	
PRODUCT DEVELOPMENT													
Primary Hdw Development	TBD	TBD				9.500	6/30/2006	21.628	3/31/2007	53.825	84.953	84.953	
SUBTOTAL PRODUCT DEVELOPMEN						9.500		21.628		53.825	84.953		
Remarks:													
SUPPORT													
Software Development	WX	NAWCWD, CHINA LAKE CA		.390	12/31/2004			.900	11/30/2006	2.000	3.290		
Studies & Analyses	C-CPFF	JOHNS HOPKINS UNIV, COLUMBIA, MD	.511	.200	12/31/2004	.300	11/30/2005	.700	11/30/2006	1.200	2.911	2.911	
Software Development (Cont)	VARIOUS	VARIOUS						1.300	11/30/2006	5.200	6.500	6.500	
SUBTOTAL SUPPORT			.511	.590		.300		2.900		8.400	12.701		
Remarks:													
TEST & EVALUATION													
Test & Evaluation	WX	NAWCAD, PATUXENT RIVER MD								1.500	1.500		
SUBTOTAL TEST & EVALUATION										1.500	1.500		
Remarks:													
MANAGEMENT													
Contractor Eng Sup	TBD	TBD	1.700	1.036	11/30/2004	.702	2/28/2006	.800	11/30/2006	3.200	7.438	7.438	
Government Engineering Support	WX	NAWCAD, PATUXENT RIVER MD		.191	12/31/2004	.200	11/30/2005	.500	11/30/2006	2.000	2.891		
Government Engineering Support	WX	NAWCWD, CHINA LAKE CA	.502	.300	12/31/2004	.800	11/30/2005	2.000	11/30/2006	5.171	8.773		
Program Management Support (Cont)	VARIOUS	VARIOUS	.240	.360	12/31/2004	.300	12/31/2005	.300	12/31/2006	1.400	2.600	2.600	
Program Management Support (Gov)	WX	NAWCWD, CHINA LAKE CA	.400	.200	12/30/2004	.200	11/30/2005	.200	11/30/2006	2.710	3.710		
Travel	TO	NAVAIR HQ, PATUXENT RIVER MD	.010	.010	2/28/2005	.010	10/31/2005	.010	11/30/2006	.040	.080		
SUBTOTAL MANAGEMENT			2.852	2.097		2.212		3.810		14.521	25.492		
Remarks:													
Total Cost			3.363	2.687		12.012		28.338		78.246	124.646		
Remarks:													

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R4, Schedule Profile

DATE:

Automatic Radar Periscope Detection and Discrimination (ARPDD)**February 2006**

APPROPRIATION/BUDGET ACTIVITY

PROGRAM ELEMENT NUMBER AND NAME

PROJECT NUMBER AND NAME

RDT&E, N / BA-05

0604261N Acoustic Search Sensors

4017 ARPDD

Fiscal Year	2005				2006				2007				2008				2009				2010				2011			
	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
Acquisition Milestones									MS-B △																	Full Rate Production △		
Prototype Phase (Prior to FY02)																												
System Development								Contract Award △																				
System Development									SDD Contract Award △																			
EDM & Pre Production Delivery																	LAB UNITS △ 1				Test Articles / Preproduction Units △ 1	△ 1						
Software								Software Development and Test △																				
Software																	Software Development and Test △											
Test & Evaluation Milestones																												
Development Test																										TRR △ DT		
Operational Test																											OT △	
Production Milestones																												
LRIP																												
Deliveries																												

R-1 SHOPPING LIST - Item No. 94

UNCLASSIFIED

CLASSIFICATION:

Exhibit R-4a, Schedule Detail

DATE:

Automatic Radar Periscope Detection and Discrimination (ARPDD)**February 2006**

APPROPRIATION/BUDGET ACTIVITY

PROGRAM ELEMENT

PROJECT NUMBER AND NAME

RDT& BA-05

0604261N Acoustic Search Sensors

4017 ARPDD

Schedule Profile	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Prototype Phase							
Systems Requirement Review (SRR)							
System Functional Review (SFR)							
Milestone B			2Q				
Contract Award		4Q	2Q				
Software Specification Review (SSR)							
Preliminary Design Review (PDR)							
System Development		1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q - 4Q	1Q - 4Q
Critical Design Review (CDR)							
Quality Design and Build							
Test Readiness Review (TRR)							2Q
Developmental Testing (DT-IIA)							
Lab Units					4Q		
Software Development and Test		3Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q - 4Q	1Q
Preproduction Readiness Review (PRR)							
Test Article Delivery						4Q	1Q
Milestone C (MS C)							
Operational Testing (OT-IIA)							
Low-Rate Initial Production (LRIP) Decision							
Software Delivery 2XXSW							
Developmental Testing (DT)							1Q-2Q
Developmental Testing (DT-IIB2)							
Start Low-Rate Initial Production II							
Operational Testing (OT)							3Q
Developmental Testing (DT-IIC)							
Functional Configuration Audit (FCA)							
Low-Rate Initial Production I Delivery							
Technical Evaluation (TECHEVAL)							
Physical Configuration Audit							
Operational Evaluation (OT-IIC) (OPEVAL)							
Low-Rate Initial Production II Delivery							
IOC							
Full Rate Production (FRP) Decision							
Full Rate Production							4Q
First Deployment							

R-1 SHOPPING LIST - Item No. 94

UNCLASSIFIED

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EXHIBIT R-2a, RDT&E Project Justification

DATE:

February 2006

APPROPRIATION/BUDGET ACTIVITY

RDT&E, N /

BA 5

PROGRAM ELEMENT NUMBER AND NAME

0604261N, ACOUSTIC SEARCH SENSORS

PROJECT NUMBER AND NAME

9999 Congressional Adds

COST (\$ in Millions)

FY 2005

FY 2006

FY 2007

FY 2008

FY 2009

FY 2010

FY 2011

9999 Congressional Adds

4.500

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: Congressional Adds.

B. ACCOMPLISHMENTS / PLANNED PROGRAM:

4017C	FY 2005	FY 2006	FY 2007	
Accomplishments / Effort / Sub-total Cost		2.500		
RDT&E Articles Qty				

Automatic Radar Periscope Detection and Discrimination. Funding will be used to prepare for System Development and Demonstration (SDD) of ARPDD technology.

9773N	FY 2005	FY 2006	FY 2007
Accomplishments / Effort / Sub-total Cost		2.000	
RDT&E Articles Qty			

Acoustic Environmental Sensor System. Continue development and testing of A-plus sized sonobuoy prototype and in-buoy processing software, high dynamic range omni directional hydrophone, sound velocity, profiling, data collection ability and reverberation data collection capability.

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EXHIBIT R-2a, RDT&E Project Justification

DATE:

February 2006

APPROPRIATION/BUDGET ACTIVITY

RDT&E, N /

BA 5

PROGRAM ELEMENT NUMBER AND NAME

0604261N, ACOUSTIC SEARCH SENSORS

PROJECT NUMBER AND NAME

9999 Congressional Adds

C. PROGRAM CHANGE SUMMARY

Funding:	FY 2005	FY 2006	FY 2007
Previous President's Budget:		0.000	
Current BES / President's Budget:		4.500	
Total Adjustments		<u>4.500</u>	

Summary of Adjustments

Congressional Reductions

Congressional Rescissions

Congressional Undistributed Reductions

Congressional Increases

4.500

Economic Assumptions

Miscellaneous Adjustments

Subtotal

4.500

Schedule: Not Applicable

Technical: Not Applicable

D. OTHER PROGRAM FUNDING SUMMARY:

Related RDT&E

FY 2005

FY 2006

FY 2007

FY 2008

FY 2009

FY 2010

FY 2011

To Complete

Total Cost

E. ACQUISITION STRATEGY: Congressional Plus Up

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