

CLASSIFICATION:

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[illegible]

FY2004 budget reflects a \$3.500 million Congressional add for Automatic Radar Periscope Detection and Discrimination (ARPDD), which has been reduced by \$.039 million for undistributed Congressional reductions.

U) (H0480) – 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 maintain naval superiority, 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 attack. 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 H0480 provides funding for the engineering development of solutions that acquire, confirm, and attack threat submarines. Efforts being funded during the period identified are the Generic Acoustic Stimulation System (GASS), the Extended Echo Ranging (EER) family of multi-static active sensor systems, the Hydrostatic Sensor Firing Device (HSFD), the Non-Traditional Acoustic Processing (NTAP), and the Tactical Acoustics Measurement and Decision Aid (TAMDA) programs. GASS provides real time ocean, sensor, and target modeling that will couple with all ASW trainers and add shallow water and range dependent capabilities; multi-static active sensor systems provides improved threat target detection capabilities for harsh water environments; HSFD provides an ASW depth bomb capability; and TAMDA provides a real time ocean environmental measurement capability for modifying sensor field management and sensor utilization. Technology adjuncts to these programs include Sonobuoy Precise Positioning, Air Deployed Low Frequency Projector (ADLFP), Shallow Water Localization and Attack, and Light Weight Search System.

(U) (H4017) - 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 other targets. This capability is suitable for air and surface platforms. This project funds only the airborne application.

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EXHIBIT R-2a, RDT&E Project Justification							DATE:	
							February 2004	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-05	PROGRAM ELEMENT NUMBER AND NAME 0604261N Acoustic Search Sensors				PROJECT NUMBER AND NAME H0480 ASW Sensors and Processing			
COST (\$ in Millions)		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
H0480 ASW Sensors and Processing		13.311	13.479	10.507	17.518	9.790	9.988	6.690
RDT&E Articles Quantity								
<p>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: 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 maintain naval superiority, 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 attack. 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 H0480 provides funding for the engineering development of solutions that acquire, confirm, and attack threat submarines. Efforts being funded during the period identified are the Generic Acoustic Stimulation System (GASS), the Extended Echo Ranging (EER) family of multi-static active sensor systems, the Hydrostatic Sensor Firing Device (HSFD), the Non-Traditional Acoustic Processing (NTAP), and the Tactical Acoustics Measurement and Decision Aid (TAMDA) programs. GASS provides real time ocean, sensor, and target modeling that will couple with all ASW trainers and add shallow water and range dependent capabilities; multi-static active sensor systems provides improved threat target detection capabilities for harsh water environments; HSFD provides an ASW depth bomb capability; and TAMDA provides a real time ocean environmental measurement capability for modifying sensor field management and sensor utilization. Tehcnology adjuncts to these programs include Sonobuoy Precise Positioning, Air Deployed Low Frequency Projector (ADLFP), Shallow Water Localization and Attack, and Light Weight Search System.</p>								

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Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 2 of 19)

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EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2004																
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-05	PROGRAM ELEMENT NUMBER AND NAME 0604261N Acoustic Search Sensors	PROJECT NUMBER AND NAME H0480 ASW Sensors & Processing																	
B. Accomplishments/Planned Program																			
<table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="width: 30%;"></td><td style="width: 30%;"></td><td style="width: 20%; text-align: center;">FY 03</td><td style="width: 20%; text-align: center;">FY 04</td><td style="width: 20%; text-align: center;">FY 05</td></tr><tr><td>Accomplishments/Effort/Subtotal Cost</td><td></td><td style="text-align: center;">12.311</td><td style="text-align: center;">13.479</td><td style="text-align: center;">10.507</td></tr><tr><td>RDT&E Articles Quantity</td><td></td><td></td><td></td><td></td></tr></table>							FY 03	FY 04	FY 05	Accomplishments/Effort/Subtotal Cost		12.311	13.479	10.507	RDT&E Articles Quantity				
		FY 03	FY 04	FY 05															
Accomplishments/Effort/Subtotal Cost		12.311	13.479	10.507															
RDT&E Articles Quantity																			
Software, integration, and test for Multi-Static active sensor systems.																			
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		FY 03	FY 04	FY 05															
Accomplishments/Effort/Subtotal Cost		1.000																	
RDT&E Articles Quantity																			
Hydrostatic Device system design, trade offs, and developmental testing. Prepare for production.																			
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EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2004
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-05	PROGRAM ELEMENT NUMBER AND NAME 0604261N Acoustic Search Sensors	PROJECT NUMBER AND NAME H0480 ASW Sensors & Processing

C. PROGRAM CHANGE SUMMARY:

	FY 2003	FY 2004	FY 2005
Funding:			
Previous President's Budget:	13.621	15.831	17.427
FY2005 President's Budget	13.311	13.479	10.507
Total Adjustments	-0.310	-2.352	-6.920
Summary of Adjustments			
Congressional program reductions			
Congressional undistributed reductions		-0.152	
Congressional rescissions			
SBIR/STTR Transfer	-0.157		
Economic Assumptions			-0.007
Reprogrammings	-0.153		
Reprioritization		-2.200	-6.913
Subtotal	-0.310	-2.352	-6.920

Schedule:

(U) Schedule: Impulsive active source (Q110B) improvement effort added as an Abbreviated Acquisition Program (AAP). 1Q/02 GASS CDR#4 and 3Q/02 GASS MS III deleted - Due to a GASS contract restructure, per NPDM dated 22 January 2002, GIM#4 was dropped, therefore, no CDR required. Also no production tail, therefore no MS III required. TTPRR deleted due to contract termination. TAMDA deleted due to POM-02 budget cut forcing postponment of environmental measurements effort. Added multistatic active integration milestones into emerging P-3 acoustic configurations to provide additional program definition. To avoid schedule delays to MSA Integration of IEER, reduction of \$6.8M FY05 funding will result in 12 month delay to NTAP advance signal processing and TAMDA program development.

HSFD schedule changed by direction of N78 to delay production 1 year.

Technical:

N/A

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-05		PROGRAM ELEMENT NUMBER AND NAME 0604261N Acoustic Search Sensors			PROJECT NUMBER AND NAME H0480 ASW Sensors & Processing				
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>
(U) APN/SH-60R/(018200)	0	0	0	0	0	0	0	0	0
(U) OPN (404800) Q110B	9.3	7.1	4.3	4.4	7.5	6.4	4.6	Continuing	Continuing
(U) OPN (404800) HSFD	0.2	1.2	1.2	1.2	1.3	1.3	1.3	Continuing	Continuing
<u>(U) Related RDT&E</u>									
(U) P.E. 0603254N (ASW Systems Development)									
E. ACQUISITION STRATEGY:									
The integration of 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.									
F. MAJOR PERFORMERS:									

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Exhibit R-3 Cost Analysis (page 1)								DATE: February 2004				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-05			0604261N Acoustic Search Sensors			H0480 ASW Sensors & Processing						
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
Primary Hardware Development	C/FFP	Sparton, FL	3.178								3.178	3.178
	C/FFP	USSI, IN	2.710								2.710	2.710
	C/CPFF	Misc Contracts	1.000								1.000	1.000
Subtotal Product Development			6.888	0.000		0.000		0.000		0.000	6.888	
Remarks:												
Software Development (GASS)	C/CPIF	Northrop Grumman, NY	46.314								46.314	46.314
Integrated Logistics Support	C/CPFF	Misc GASS Con	12.834								12.834	12.834
Software Development (Phase I)	C/CPFF	Misc /P-3 Baseline Cont's	8.300								8.300	8.300
Software Development (Phase II)	WX	Misc In-House				1.000	10/03	2.040	10/04		3.040	
Technical Data	WX	Misc In-House	1.861	1.291	11/02	1.230	10/03	1.630	10/04		6.012	
Studies & Analyses												
Award Fees												
Subtotal Support			69.309	1.291		2.230		3.670		0.000	76.500	
Remarks:												

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Exhibit R-3 Cost Analysis (page 2)										DATE: February 2004		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDTE, N / BA-05			0604261N Acoustic Search Sensors			H0480 ASW Sensors & Processing						
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	WX	Misc In-House	1.850	0.900	11/02	0.450	11/03	0.400	11/04	Continuing	Continuing	
Subtotal T&E			1.850	0.900		0.450		0.400		Continuing	Continuing	
Remarks:												
Program Mgmt Support (Cont)	C/FFP	Misc/Contracts	38.575	0.817	02/03	0.817	11/03	0.710	11/04		41.026	41.026
Engineering Support (Gov)	WX	Misc In-House	37.750	8.732	10/02	8.402	10/03	4.477	10/04	Continuing	Continuing	
Program Mgmt Support (Gov)	WX	Misc In-House	6.733	0.140	10/02	0.150	10/03	0.150	10/04	Continuing	Continuing	
Engineering Support (Contract)	RX	Misc Contracts		1.431	11/02	1.430	10/03	1.100	10/04	Continuing		
Travel												
Transportation												
Subtotal Management			83.058	11.120		10.799		6.437		Continuing	Continuing	
Remarks:												
Total Cost			161.105	13.311		13.479		10.507		Continuing	Continuing	
Remarks:												

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EXHIBIT R4, Schedule Profile																								DATE:								
Multi-Static Active																								February 2004								
APPROPRIATION/BUDGET ACTIVITY										PROGRAM ELEMENT NUMBER AND NAME										PROJECT NUMBER AND NAME												
RDT&E, N / BA-05										0604261N Acoustic Search Sensors										H0480 ASW Sensors & Processing												
Fiscal Year	2002				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				
Acquisition Milestones										MSA Integration Contract △																						
Prototype Phase																																
System Development		Q110B CDR △												MSA Integration CDR △																		
EDM Delivery																																
Software Integration								Q110B △																								
Test & Evaluation Milestones																				MSA Integration TECH EVAL △												
Development Test																																
Operational Test										Q110B FOT&E △											MSA Integration OPEVAL △											
Production Milestones																																
LRIP I FY 05																																
LRIP II FY 06																																
FRP FY 07																																
Deliveries																																

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Note: To avoid schedule delays to MSA Integration of IEER, reduction of \$6.8M FY05 funding will result in 12 month delay to NTAP advance signal processing and TAMDA program development. These funds were removed from FY2005 funding due to poor execution in prior years. FY2003 funds will be used to forward finance future years' priorities.

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Exhibit R-3, Project Cost Analysis
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Exhibit R-4a, Schedule Detail						DATE:		
Multi-Static Active						February 2004		
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT				PROJECT NUMBER AND NAME		
RDT&BA-05		0604261N Acoustic Search Sensors				H0480 ASW Sensors & Processing		
Schedule Profile	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Prototype Phase								
System Design Review (SDR)								
Milestone II (MSII)								
Integration Contract			2Q					
Software Specification Review (SSR)								
Preliminary Design Review (PDR)								
System Development								
Critical Design Review (CDR)	2Q			4Q				
Quality Design and Build								
Test Readiness Review (TRR)								
Developmental Testing (DT-IIA)								
Eng Dev Model (EDM) Radar Delivery - Lab								
Software Intergration		4Q						
Preproduction Readiness Review (PRR)								
EDM Radar Delivery - Flt Related								
Milestone C (MS C)								
Operational Testing (OT-IIA)								
Start Low-Rate Initial Production I (LRIP I)								
Software Delivery 2XXSW								
Developmental Testing (DT-IIB1)								
Developmental Testing (DT-IIB2)								
Start Low-Rate Initial Production II								
Operational Testing (OT-IIB)								
Developmental Testing (DT-IIC)								
Functional Configuration Audit (FCA)								
Low-Rate Initial Production I Delivery								
Technical Evaluation (TECHEVAL)						2Q		
Physical Configuration Audit								
Operational Evaluation (OT-IIC) (OPEVAL)			2Q			4Q		
Low-Rate Initail Production II Delivery								
IOC								
Full Rate Production (FRP) Decision								
Full Rate Production Start								
First Deployment								

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Exhibit R-3, Project Cost Analysis

(Exhibit R-3, page 9 of 19)

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EXHIBIT R4, Schedule Profile																										DATE:						
Hydrostatic Device																										February 2004						
APPROPRIATION/BUDGET ACTIVITY										PROGRAM ELEMENT NUMBER AND NAME										PROJECT NUMBER AND NAME												
RDT&E, N / BA-05										0604261N Acoustic Search Sensors										H0480 ASW Sensors and Processing												
Fiscal Year	2002				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				
Acquisition Milestones	MS-B △								MS-C △																							
Prototype Phase																																
Contract Award																																
System Development	△	PDR △	CDR △						FCA/PCA △																							
EDM Delivery						Lab △ 30			Flight △ 60																							
Software	N/A																															
Test & Evaluation Milestones					TRR △																											
Development Test																																
Operational Test (Not Required)																																
Production Milestones						PRR △				Lot I (306) △			Lot II (306) △				New Contract Award(306) △			Lot III (306) △	Lot IV (306) △											
Contract Production Options																																
FRP FY 06																																
Deliveries																																

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Exhibit R-4, Schedule Profile
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Exhibit R-4a, Schedule Detail Hydrostatic Device						DATE: February 2004		
APPROPRIATION/BUDGET ACTIVITY RDT&BA-05		PROGRAM ELEMENT 0604261N Acoustic Search Sensors				PROJECT NUMBER AND NAME H0480 ASW Sensors and Processing		
Schedule Profile	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Prototype Phase (Prior to FY02)								
System Design Review (SDR) (Prior ro FY02)								
Milestone II (MSII) (4Qtr FY01)								
Contract Preparation (FY01)								
Software Specification Review (SSR) (N/A)								
Preliminary Design Review (PDR)	2Q							
System Development	1Q - 4Q	1Q - 4Q						
Critical Design Review (CDR)	3Q							
Quality Design and Build	1Q - 4Q	1Q - 3Q						
Test Readiness Review (TRR)		1Q						
Developmental Testing (DVT)		1Q - 4Q	1Q					
Eng Dev Model (EDM) Delivery - Lab (Prior FY02)								
Software Delivery (N/A)								
Preproduction Readiness Review (PRR)		2Q						
Milestone C (MS C)			1Q					
Operational Testing (OT-IIA) (N/A)								
Start Low-Rate Initial Production I (LRIP I) (N/A)								
Software Delivery 2XXSW (N/A)								
Developmental Testing (DT-IIB1) (N/A)								
Developmental Testing (DT-IIB2) (N/A)								
Start Low-Rate Initial Production II (N/A)								
Operational Testing (OT-IIB) (N/A)								
Developmental Testing (DT-IIC) (N/A)								
Functional Configuration Audit (FCA)		4Q						
Low-Rate Initial Production I Delivery (N/A)								
Technical Evaluation (TECHEVAL) (N/A)								
Physical Configuration Audit		4Q						
Operational Evaluation (OT-IIC) (OPEVAL) (N/A)								
Low-Rate Initail Production II Delivery (N/A)								
IOC								
Full Rate Production (FRP) Decision					1Q			
Full Rate Production Start					1Q			
First Deployment				1Q				

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Exhibit R-4, Schedule Profile
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EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2004	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-05		PROGRAM ELEMENT NUMBER AND NAME 0604261N Acoustic Search Sensors			PROJECT NUMBER AND NAME H4017 ARPDD			
COST (\$ in Millions)		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
H4017 ARPDD			3.461	2.856	11.669	46.526	56.655	33.225

FY2004 budget reflects a \$3.500 million Congressional add for Automatic Radar Periscope Detection and Discrimination (ARPDD), which has been reduced by \$.039 million for undistributed Congressional reductions.

(U) 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 other 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 of the ARPDD system. The output will be a productionized form, fit, function incorporation of ARPDD into the AN/APS-137 radar. Two engineering development models for systems integration testing and four pre-production prototypes for environmental, reliability, development and operational testing will be provided. Full testing will be performed to support the production approval milestone (milestone C).

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-05	PROGRAM ELEMENT NUMBER AND NAME 0604261N Acoustic Search Sensors	PROJECT NUMBER AND NAME H4017 ARPDD																	
B. Accomplishments/Planned Program																			
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Accomplishments/Effort/Subtotal Cost		0.000	3.461	2.856															
RDT&E Articles Quantity																			
<div style="border: 1px solid black; padding: 5px; min-height: 60px;">ARPDD is a new start in FY05 that is a follow-on to a Science and Technology program previously funded by the Office of Naval Research in PE060374N. FY04 Congressional plus up was issued to accelerate the ARPDD program for more rapid introduction of the technology to the Fleet. FY05 funding will be used for project planning, exploring alternatives, acquisition documentation preparation, developing an independent government cost estimate, performing technical trade-off studies, preparation of discrimination software package, developing specifications, and a Statement of Work in preparation for awarding a contract for development of an airborne ARPDD capability.</div>																			
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		FY 03	FY 04	FY 05															
Accomplishments/Effort/Subtotal Cost		0.000	0.000	0.000															
RDT&E Articles Quantity																			
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EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2004
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-05	PROGRAM ELEMENT NUMBER AND NAME 0604261N Acoustic Search Sensors	PROJECT NUMBER AND NAME H4017 ARPDD

C. PROGRAM CHANGE SUMMARY:

	FY 2003	FY 2004	FY 2005
Funding:			
Previous President's Budget:	0.000	0.000	2.863
FY2005 President's Budget	0.000	3.461	2.856
Total Adjustments	0.000	3.461	-0.007
Summary of Adjustments			
Congressional program reductions			
Congressional undistributed reductions		0.039	
Congressional rescissions			
SBIR/STTR Transfer			
Economic Assumptions			-0.005
Reprioritization			-0.002
Congressional increases		3.500	
Subtotal	0.000	3.539	-0.007

Schedule:

(U) Schedule: FY2004 Congressional plus up accelerated the ARPDD program by 3-5 months.

Technical:

N/A

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2004			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-05		PROGRAM ELEMENT NUMBER AND NAME 0604261N Acoustic Search Sensors			PROJECT NUMBER AND NAME H4017 ARPDD					
D. OTHER PROGRAM FUNDING SUMMARY:										
<u>Line Item No. & Name</u>	<u>FY 2002</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>
Line Item #36 (APN P-3 OSIP 29-94)	0	0	0	0	0	0	0	48.5	TBD	TBD
 E. ACQUISITION STRATEGY:										
Analyze merits of sole source verses competitive procurement. Explore Alternatives. Award prime contract to TBD contractor. Technical support will be provided by NAWCWD (China Lake) and JHU/APL.										
 F. MAJOR PERFORMERS:										

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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-05			0604261N Acoustic Search Sensors			H4017 ARPDD						
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
Primary Hardware Development												
Subtotal Product Development			0.000	0.000		0.000		0.000		0.000	0.000	
Remarks:												
Software Development	WX	Misc In-House				0.000		1.159	10/04	Continuing	Continuing	
Integrated Logistics Support												
Configuration Management												
Technical Data												
Studies & Analyses	C/CPFF	Misc. Contracts				0.511	03/04	0.500	11/04		1.011	1.011
GFE												
Award Fees												
Subtotal Support			0.000	0.000		0.511		1.659		Continuing	Continuing	
Remarks:												

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CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)								DATE: February 2004				
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-05			PROGRAM ELEMENT 0604261N Acoustic Search Sensors			PROJECT NUMBER AND NAME H4017 ARPDD						
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												
Subtotal T&E			0.000	0.000		0.000		0.000		0.000	0.000	
Remarks:												
Program Mgmt Support (Cont)	TBD	Misc. Contracts				0.240	04/04	0.250	11/04		0.490	0.490
Government Engineering Support	WX	Misc In-House				0.600	03/04	0.400	10/04		1.000	
Program Mgmt Support (Gov)	WX	Misc In-House				0.400	03/04	0.537	10/04		0.937	
Travel						0.010	02/04	0.010	10/04		0.020	
Engineering Support (Cont)	TBD	Misc Contracts				1.700	05/04				1.700	1.700
Subtotal Management			0.000	0.000		2.950		1.197			4.147	
Remarks:												
Total Cost			0.000	0.000		3.461		2.856		Continuing	Continuing	
Remarks:												

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EXHIBIT R4, Schedule Profile																								DATE:											
Automatic Radar Periscope Detection and Discrimination (ARPDD)																								February 2004											
APPROPRIATION/BUDGET ACTIVITY												PROGRAM ELEMENT NUMBER AND NAME												PROJECT NUMBER AND NAME											
RDT&E, N / BA-05												0604261N Acoustic Search Sensors												H4017 ARPDD											
Fiscal Year	2002				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							
Acquisition Milestones															MS-B △													MS-C △							
Prototype Phase (Prior to FY02)																																			
System Development														SRR △	SFR △	Award △		SSR △	PDR △			CDR △					PRR △								
EDM & Pre Production Delivery																										Lab Units △ 1	△ 1		Pre-Production △ 2	△ 2					
Software															Initial GFE △																				
Test & Evaluation Milestones																																			
Development Test																																			
Operational Test																																			
Production Milestones																																			
LRIP FY 09																														LRIP Decision △					
Deliveries																																			

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Note: FY2004 Congressional plus up accelerated the ARPDD program by 3-5 months.

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Exhibit R-3, Project Cost Analysis
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CLASSIFICATION:

Exhibit R-4a, Schedule Detail Automatic Radar Periscope Detection and Discrimination (ARPDD)						DATE: February 2004		
APPROPRIATION/BUDGET ACTIVITY RDT&BA-05		PROGRAM ELEMENT 0604261N Acoustic Search Sensors				PROJECT NUMBER AND NAME H4017 ARPDD		
Schedule Profile	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Prototype Phase								
Systems Requirement Review (SRR)				2Q				
System Functional Review (SFR)				3Q				
Milestone II (MS B)				3Q				
Contract Award				4Q				
Software Specification Review (SSR)					2Q			
Preliminary Design Review (PDR)					3Q			
System Development				4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 3Q
Critical Design Review (CDR)						2Q		
Quality Design and Build						3Q-4Q	1Q - 4Q	
Test Readiness Review (TRR)							4Q	
Developmental Testing (DT-IIA)							4Q	1Q - 2Q
Lab Units							2Q - 3Q	
Software Delivery							4Q	
Preproduction Readiness Review (PRR)							4Q	
EDM & Pre Production Prototype Delivery								1Q - 2Q
Milestone C (MS C)								2Q
Operational Testing (OT-IIA)								1Q - 3Q
Start Low-Rate Initial Production (LRIP)								2Q
Software Delivery 2XXSW								
Developmental Testing (DT-IIB1)								
Developmental Testing (DT-IIB2)								
Start Low-Rate Initial Production II								
Operational Testing (OT-IIB)								
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 Initail Production II Delivery								
IOC								
Full Rate Production (FRP) Decision								
Full Rate Production Start								
First Deployment								

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Exhibit R-3, Project Cost Analysis

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