

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification								DATE: February 2004			
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-4						R-1 ITEM NOMENCLATURE 0603502N/Surface and Shallow Water Mine Countermeasure					
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	625.375		140.512	145.678	103.308	100.114	89.286	80.617	90.396	Continuing	Continuing
Remote Minehunting System/0260/2387	211.854		58.433	58.458	14.424	0.010	0.000	0.000	0.000	0.000	343.179
Integrated Combat Weapons System/1233/2388	61.558		8.314	3.716	3.850	3.822	4.033	3.934	3.882	Continuing	Continuing
Unmanned Underwater Vehicle/2094/2852	168.982		69.185	80.537	65.580	55.566	47.654	47.870	57.673	Continuing	Continuing
Assault Breaching Systems /2131	182.981		4.580	2.967	17.277	29.273	37.599	28.813	28.841	Continuing	Continuing
Expendable Mine Neutralization System/4025	0.000		0.000	0.000	2.177	11.443	0.000	0.000	0.000	0.000	13.620
											0.000
Quantity of RDT&E Articles											0.000

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

The program provides for developments to combat the threat of known and projected foreign mines against U.S. Naval and merchant shipping in harbors, channels, choke points, sea lines of communications and amphibious and other fleet operating areas. It develops: (1) organic remote minehunting capability for surface platforms; (2) the integration and improvement of systems and support for systems which will detect, localize and classify moored, bottom, and close-tethered mines for use in Mine Countermeasure (MCM) MCM-1 Class, Mine Hunter Coastal (MHC) MHC-51 Class, and other surface ships; (3) systems for neutralizing mines and light obstacles from shallow water, very shallow water, surf zones, and beach landing craft zones in support of amphibious operations; (4) Unmanned Undersea Vehicle (UUV) systems for clandestine mine reconnaissance.

(U) B. JUSTIFICATION FOR BUDGET ACTIVITY:

This program is funded under DEMONSTRATION AND VALIDATION because it develops and integrates hardware for experimental test related to specific ship or aircraft applications.

Congressional adds received in FY 2004 for the venom penetrator and risk reduction for RMS associated with LCS mission modules for Mine Warfare.

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Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 1 of 56)

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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-4	0603502N, Surface and Shallow Water MCM					0260/2387, Remote Minehunting Systems					
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	211.854		58.433	58.458	14.424	0.010	0.000	0.000	0.000	0.000	343.179
RDT&E Articles Qty	2		1	1	0	0					4

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

The Remote Minehunting System (RMS), AN/WLD-1(V)1, program develops a new remotely operated minehunting system for surface ships. This effort includes development and integration of a remote minehunting vehicle, minehunting sensors, mission command and control, and installation into the DDG-51 Class Flight IIA Baseline 7 and AN/SQQ-89(V)15 Undersea Warfare Combat System.

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Exhibit R-2a, RDTEEN Project Justification
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EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2004																
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-4	PROGRAM ELEMENT NUMBER AND NAME 0603502N, Surface and Shallow Water MCM	PROJECT NUMBER AND NAME 0260/2387, Remote Minehunting Systems																	
(U) B. Accomplishments/Planned Program																			
<table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="width: 30%;">Product Development</td><td style="width: 10%;"></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></td><td style="text-align: right;">37.955</td><td style="text-align: right;">44.717</td><td style="text-align: right;">8.281</td></tr><tr><td>RDT&E Articles Quantity</td><td></td><td style="text-align: center;">1</td><td style="text-align: center;">1</td><td></td></tr></table>					Product Development		FY 03	FY 04	FY 05	Accomplishments/Effort/Subtotal Cost		37.955	44.717	8.281	RDT&E Articles Quantity		1	1	
Product Development		FY 03	FY 04	FY 05															
Accomplishments/Effort/Subtotal Cost		37.955	44.717	8.281															
RDT&E Articles Quantity		1	1																
<div style="border: 1px solid black; min-height: 100px; margin-top: 10px;"></div>																			
<table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="width: 30%;">Support</td><td style="width: 10%;"></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></td><td style="text-align: right;">10.645</td><td style="text-align: right;">5.476</td><td style="text-align: right;">3.619</td></tr><tr><td>RDT&E Articles Quantity</td><td></td><td style="text-align: center;">1</td><td style="text-align: center;">1</td><td></td></tr></table>					Support		FY 03	FY 04	FY 05	Accomplishments/Effort/Subtotal Cost		10.645	5.476	3.619	RDT&E Articles Quantity		1	1	
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Accomplishments/Effort/Subtotal Cost		10.645	5.476	3.619															
RDT&E Articles Quantity		1	1																
<div style="border: 1px solid black; min-height: 50px; margin-top: 10px;"></div>																			

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Exhibit R-2a, RDTEN Project Justification
(Exhibit R-2a, page 3 of 56)

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EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2004																
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-4	PROGRAM ELEMENT NUMBER AND NAME 0603502N, Surface and Shallow Water MCM	PROJECT NUMBER AND NAME 0260/2387, Remote Minehunting Systems																	
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<table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th style="width: 30%;">T&E</th><th style="width: 15%;"></th><th style="width: 15%;">FY 03</th><th style="width: 15%;">FY 04</th><th style="width: 15%;">FY 05</th></tr></thead><tbody><tr><td>Accomplishments/Effort/Subtotal Cost</td><td></td><td style="text-align: center;">8.606</td><td style="text-align: center;">7.032</td><td style="text-align: center;">2.009</td></tr><tr><td>RDT&E Articles Quantity</td><td></td><td style="text-align: center;">1</td><td style="text-align: center;">1</td><td></td></tr></tbody></table>					T&E		FY 03	FY 04	FY 05	Accomplishments/Effort/Subtotal Cost		8.606	7.032	2.009	RDT&E Articles Quantity		1	1	
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RDT&E Articles Quantity		1	1																
<div style="border: 1px solid black; padding: 5px;">Conducted DT Assist of the Datalink Subsystem for the RMS Shipboard Equipment. Begin test preparation for TECHEVAL Phase I on ship of opportunity. Complete test preparation and conduct TECHEVAL Phase I and II for the RMS. Conduct and complete OPEVAL.</div>																			
<table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th style="width: 30%;">Management</th><th style="width: 15%;"></th><th style="width: 15%;">FY 03</th><th style="width: 15%;">FY 04</th><th style="width: 15%;">FY 05</th></tr></thead><tbody><tr><td>Accomplishments/Effort/Subtotal Cost</td><td></td><td style="text-align: center;">1.227</td><td style="text-align: center;">1.233</td><td style="text-align: center;">0.515</td></tr><tr><td>RDT&E Articles Quantity</td><td></td><td style="text-align: center;">1</td><td style="text-align: center;">1</td><td></td></tr></tbody></table>					Management		FY 03	FY 04	FY 05	Accomplishments/Effort/Subtotal Cost		1.227	1.233	0.515	RDT&E Articles Quantity		1	1	
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Accomplishments/Effort/Subtotal Cost		1.227	1.233	0.515															
RDT&E Articles Quantity		1	1																
<div style="border: 1px solid black; padding: 5px;">Funds provided for Program Management Support and Travel.</div>																			

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-4	PROGRAM ELEMENT NUMBER AND NAME 0603502N, Surface and Shallow Water MCM	PROJECT NUMBER AND NAME 0260/2387, Remote Minehunting Systems																																														
<p>(U) C. PROGRAM CHANGE SUMMARY:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%; text-align: right;">FY 2003</th> <th style="width: 15%; text-align: right;">FY 2004</th> <th style="width: 15%; text-align: right;">FY 2005</th> </tr> </thead> <tbody> <tr> <td>(U) Funding:</td> <td></td> <td></td> <td></td> </tr> <tr> <td>FY04 President's Controls:</td> <td style="text-align: right;">60.792</td> <td style="text-align: right;">55.516</td> <td style="text-align: right;">14.677</td> </tr> <tr> <td>FY05 President's Controls:</td> <td style="text-align: right;">58.433</td> <td style="text-align: right;">58.458</td> <td style="text-align: right;">14.424</td> </tr> <tr> <td>Total Adjustments</td> <td style="text-align: right; border-top: 1px solid black;">-2.359</td> <td style="text-align: right; border-top: 1px solid black;">2.942</td> <td style="text-align: right; border-top: 1px solid black;">-0.253</td> </tr> <tr> <td colspan="4" style="padding-top: 20px;">Summary of Adjustments</td> </tr> <tr> <td>Economic Assumptions</td> <td style="text-align: right;">-0.345</td> <td></td> <td></td> </tr> <tr> <td>FY03 SBIR</td> <td style="text-align: right;">-1.497</td> <td></td> <td></td> </tr> <tr> <td>Congressional Plus-Up</td> <td></td> <td style="text-align: right;">3.600</td> <td></td> </tr> <tr> <td>Misc Adjustments</td> <td style="text-align: right; border-top: 1px solid black;">-0.517</td> <td style="text-align: right; border-top: 1px solid black;">-0.658</td> <td style="text-align: right; border-top: 1px solid black;">-0.253</td> </tr> <tr> <td>Subtotal</td> <td style="text-align: right;">-2.359</td> <td style="text-align: right;">2.942</td> <td style="text-align: right;">-0.253</td> </tr> </tbody> </table> <p>(U) Schedule: Plan is to procure four production systems in FY05 and FY06 and deliver in FY06 and FY07.</p> <p>(U) Technical: Not Applicable</p>						FY 2003	FY 2004	FY 2005	(U) Funding:				FY04 President's Controls:	60.792	55.516	14.677	FY05 President's Controls:	58.433	58.458	14.424	Total Adjustments	-2.359	2.942	-0.253	Summary of Adjustments				Economic Assumptions	-0.345			FY03 SBIR	-1.497			Congressional Plus-Up		3.600		Misc Adjustments	-0.517	-0.658	-0.253	Subtotal	-2.359	2.942	-0.253
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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-4		PROGRAM ELEMENT NUMBER AND NAME 0603502N, Surface and Shallow Water MCM			PROJECT NUMBER AND NAME 0260/2387, Remote Minehunting Systems			

(U) D. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. & Name	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Cost
Line 262200, OPN									
RMS	0	0	46.708	50.840	0	0	0		
Support	0	0	1.854	4.267	0	0	0		
Total	0	0	48.562	55.107	0.000	0.000	0.000		
 (U) RDT&E, Line 0604373, 0529	 16.508	 18.461	 4.798	 0	 0	 0	 0		

(U) E. ACQUISITION STRATEGY:

The government issued a series of contract modifications to Lockheed Martin to complete efforts through the System Design Review. Based upon the approved Milestone II decision the program office issued the contract modification to complete the Critical Design Review (CDR); upon completion of CDR a CPIF sole source contract was awarded to Lockheed Martin to complete the development, fabrication, and testing of the engineering development models, initial pilot line/tooling, and timed phased procurement of initial systems to meet ship delivery schedules. The government has worked with the contractor in an IPT environment to refine the specification and Statement of Work for the overall development effort. The IPT pricing process was used to generate the cost estimates against Navy requirements. The government will pursue commonality between the AN/AQS-20A airborne minehunting system and the AN/WLD-1(V)1. The AN/WLD-1(V)1 contract plan is for the development of EDMs, system interactive electronic technical manual (IETM), provisioning data, technical drawings and data, and engineering services. The AN/WLD-1(V)1 program plans to update the acquisition strategy in accordance with the new POM 04 guidance, that includes integration of the AN/WLD-1(V)1 on DDG-51 Class Flight IIA ships beginning with DDG 91. The 4 EDM remote minehunting vehicles are required to meet ship schedules for DDG ship deliveries prior to receiving follow-on production units and to support the stand-up of the maintenance and training facilities.

(U) F. MAJOR PERFORMERS:

- Lockheed Martin, Syracuse, NY: Primary hardware development and integration, system engineering, software development, ship integration, and integrated logistic support.
- NSWC, CSS, Panama City, FLA: Hardware development and integration, system engineering, software development, integrated logistic support, and ship integration.

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Exhibit R-2a, RDTEN Project Justification
(Exhibit R-2a, page 6 of 56)

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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-4			0603502N, Surface and Shallow Water MCM			0260/2387, Remote Minehunting Systems						
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
Hardware Development & Integration	CPIF	Lockheed Martin	97.283								97.283	
Hardware Development & Integration	CPIF	Lockheed Martin	9.041	33.404	11/02	40.545	11/03	6.342	11/04		89.332	
Hardware Development & Integration	WR	NWSC, CSS	2.594	1.781	10/02	1.935	10/03	0.969	10/04		7.279	
Systems Engineering	CPIF	Lockheed Martin	5.465								5.465	
Systems Engineering	CPIF	Lockheed Martin	1.775	2.473	11/02	1.753	11/03	0.485	11/04		6.486	
Systems Engineering	WR	NWSC, CSS	0.649	0.297	10/02	0.484	10/03	0.485	10/04		1.915	
Award Fees			5.485								5.485	
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RDTE&E, N / BA-4			0603502N, Surface and Shallow Water MCM			0260/2387, Remote Minehunting Systems						
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	CPIF	Lockheed Martin	7.092								7.092	
Software Development	CPIF	Lockheed Martin	2.400	3.759	11/02	0.414	11/03	0.388	11/04		6.961	
Software Development	WR	NSWC, CSS	1.363	0.198	10/02	0.290	10/03	0.291	10/04		2.142	
ILS	CPIF	Lockheed Martin	5.682								5.682	
ILS	CPIF	Lockheed Martin	2.296	3.636	11/02	3.009	11/03	1.163	11/04		10.104	
ILS	WR	NSWC, CSS	1.394	0.099	10/02	0.290	10/03	0.291	10/04		2.074	
Ship Integration	CPIF	Lockheed Martin	1.258								1.258	
Ship Integration	CPIF	Lockheed Martin	0.428	1.385	11/02	0.677	11/03	0.388	11/04		2.878	
Ship Integration**	Various	Various	9.989	1.568	12/02	0.796	12/03	1.098	12/04		13.451	
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Subtotal Support			31.902	10.645		5.476		3.619			51.642	

Remarks:
Various in Ship Integration provides funding to support AN/SQQ-89(V)15 ECP effort for RMS and PMS400 RMS DDG ship class integration efforts.

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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	CPIF	Lockheed Martin	18.470								18.470	
Developmental Test & Evaluation	CPIF	Lockheed Martin	3.985	7.122	11/02	2.513	11/03	0.590	11/04		14.210	
Developmental Test & Evaluation	WR	NSWC, CSS	1.621	1.484	10/02	4.519	11/03	1.419	10/04		9.043	
											0.000	
											0.000	
											0.000	
											0.000	
Subtotal T&E			24.076	8.606		7.032		2.009			41.723	
Remarks:												
Contractor Engineering Support	CPIF	Lockheed Martin	2.919								2.919	
Government Engineering Support	WR	NSWC, CSS	22.393								22.393	
Program Management Support	CPFF	Vredenburg	1.736	1.138	11/02	1.146	11/03	0.428	11/04		4.448	
Travel	Various	NAVSEA	0.175	0.089	Various	0.087	Various	0.087	Various		0.438	
SBIR Assessment	Various	Various	6.361								6.361	
											0.000	
Subtotal Management			33.584	1.227		1.233		0.515			36.559	
Remarks: Award dates for management are various because multiple activities are receiving tasks at different times during the fiscal year.												
Total Cost			211.854	58.433		58.458		14.424			343.169	
Remarks:												

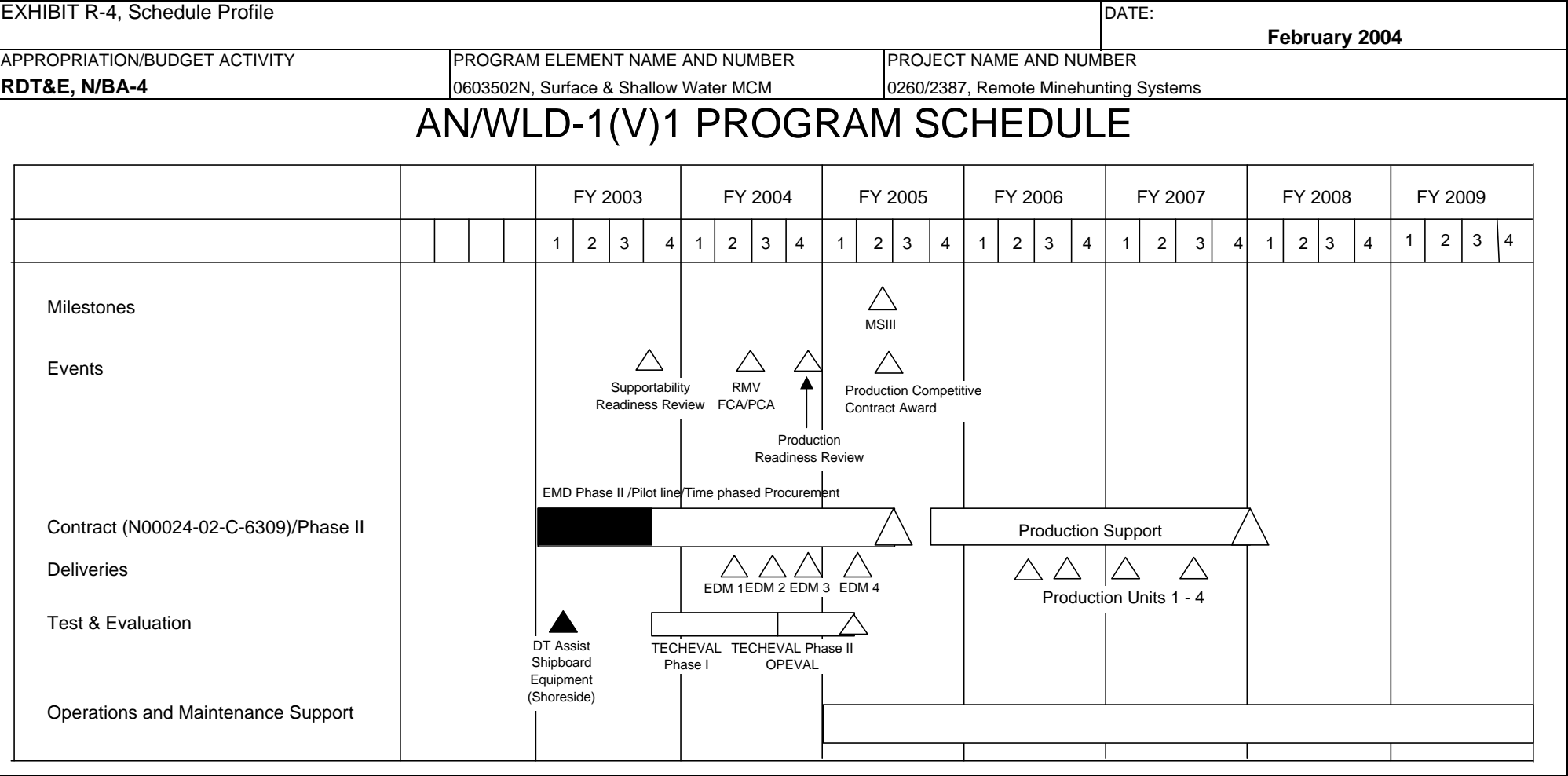
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Exhibit R-4a, Schedule Detail
(Exhibit R-4a, page 11 of 56)

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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	61.558		8.314	3.716	3.850	3.822	4.033	3.934	3.882	Continuing	Continuing
RDT&E Articles Qty											0
<p>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</p> <p>(1) Integrated Combat Weapon System (ICWS) is an open architecture system which will demonstrate common control of multiple unmanned systems with optimal manning and provide a foundation for future improvement modernization of Combat Systems on MCM and MHC class ships and future mine warfare platforms. (2) Mine Warfare and Environmental Decision Aids Library (MEDAL) is a software segment on the Global Command and Control System – Maritime (GCCS-M). MEDAL provides mine and mine warfare planning and evaluation tools and databases to the MCM Commander. (3) MCM Command Control, Communication, Computers and Intelligence (C4I) connectivity to the rest of the fleet is provided through GCCS-M; design and implement Mine Warfare (MIW) C4I Surveillance and Reconnaissance (C4ISR) architecture fully integrates and optimizes organic and dedicated systems within the Navy's C4ISR architecture.</p> <p>*former title was Integrated Combat Weapons System</p>											

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2004		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-4	PROGRAM ELEMENT NUMBER AND NAME 0603502N, Surface and Shallow Water MCM	PROJECT NUMBER AND NAME 1233, Mine Counter Measures Mid-Life Upgrades		
(U) B. Accomplishments/Planned Program				
Product Development		FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost		2.220	0.360	0.600
RDT&E Articles Quantity				
Product Development: <u>ICWS</u> Continue / complete hardware design for ICWS. <u>MIW C4ISR</u> Continue MIW information system engineering effort; continue and complete C4ISR architecture Rev 1; continue MIW C4ISR assessment; continue MCM/MHC LAN integration; continue and complete MEDAL/TEDS integration. Continue MIW information system engineering effort; initiate and continue MIW C4ISR architecture Rev 2; continue and complete MIW C4ISR assessment; initiate MIW C4ISR dynamic assessment; initiate MUW Network Centric Warfare Info system network; continue and complete MCM/MHC LAN integration. Continue MIW information system engineering effort; continue and complete MIW C4ISR architecture Rev 2; initiate MIW C4ISR Rev 3; continue MIW C4ISR Dynamic Assessment; continue MUW Network Centric Warfare Info system network.				

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2004													
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-4	PROGRAM ELEMENT NUMBER AND NAME 0603502N, Surface and Shallow Water MCM	PROJECT NUMBER AND NAME 1233, Mine Counter Measures Mid-Life Upgrades														
(U) B. Accomplishments/Planned Program																
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%; padding: 5px;">Support</th> <th style="width: 15%; padding: 5px;">FY 03</th> <th style="width: 15%; padding: 5px;">FY 04</th> <th style="width: 15%; padding: 5px;">FY 05</th> </tr> <tr> <td style="padding: 5px;">Accomplishments/Effort/Subtotal Cost</td> <td style="text-align: center; padding: 5px;">3.931</td> <td style="text-align: center; padding: 5px;">2.595</td> <td style="text-align: center; padding: 5px;">2.656</td> </tr> <tr> <td style="padding: 5px;">RDT&E Articles Quantity</td> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> </tr> </table>					Support	FY 03	FY 04	FY 05	Accomplishments/Effort/Subtotal Cost	3.931	2.595	2.656	RDT&E Articles Quantity			
Support	FY 03	FY 04	FY 05													
Accomplishments/Effort/Subtotal Cost	3.931	2.595	2.656													
RDT&E Articles Quantity																
<div style="border: 1px solid black; padding: 10px;"> <p>Support: <u>ICWS</u> Complete software/hardware design/code/test for ICWS; begin and complete EDM 1 integration and testing in the laboratory; and begin install and testing on ship of opportunity. Continue and complete testing on ship of opportunity.</p> <p><u>MEDAL</u> Continue and complete development and test of Build 9; initiate and complete integration and test of Build 9; initiate development and test of Build 10. Initiate and complete IOC Build 9; continue and complete development and test Build 10; initiate and continue integration and test Build 10; initiate and continue development and test Build 11. Continue and complete development and test Build 11; initiate and continue integration and test Build 11; initiate development and test Build 12.</p> <p><u>MIW C4I</u> Continue and complete Network Centric Warfare database phase I. Initiate Network Centric Warfare database phase II. Continue and complete Network Centric Warfare database phase II; initiate and continue Network Centric Warfare Database maintenance/update/redesign.</p> </div>																
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%; padding: 5px;">Test and Evaluation</th> <th style="width: 15%; padding: 5px;">FY 03</th> <th style="width: 15%; padding: 5px;">FY 04</th> <th style="width: 15%; padding: 5px;">FY 05</th> </tr> <tr> <td style="padding: 5px;">Accomplishments/Effort/Subtotal Cost</td> <td style="text-align: center; padding: 5px;">0.000</td> <td style="text-align: center; padding: 5px;">0.000</td> <td style="text-align: center; padding: 5px;">0.000</td> </tr> <tr> <td style="padding: 5px;">RDT&E Articles Quantity</td> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> </tr> </table>					Test and Evaluation	FY 03	FY 04	FY 05	Accomplishments/Effort/Subtotal Cost	0.000	0.000	0.000	RDT&E Articles Quantity			
Test and Evaluation	FY 03	FY 04	FY 05													
Accomplishments/Effort/Subtotal Cost	0.000	0.000	0.000													
RDT&E Articles Quantity																
<div style="border: 1px solid black; padding: 10px;"> <p>Test and Evaluation: N/A</p> </div>																

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EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2004		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-4	PROGRAM ELEMENT NUMBER AND NAME 0603502N, Surface and Shallow Water MCM	PROJECT NUMBER AND NAME 1233, Mine Counter Measures Mid-Life Upgrades		
(U) B. Accomplishments/Planned Program				
Management		FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost		2.163	0.761	0.594
RDT&E Articles Quantity				
Management: Provide program management support and travel for ICWS, MEDAL, and MIW C4ISR programs.				

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2004																																
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-4	PROGRAM ELEMENT NUMBER AND NAME 0603502N, Surface and Shallow Water MCM	PROJECT NUMBER AND NAME 1233, Mine Counter Measures Mid-Life Upgrades																																
<p>(U) C. PROGRAM CHANGE SUMMARY:</p> <table><tr><td>(U) Funding:</td><td>FY 2003</td><td>FY 2004</td><td>FY 2005</td></tr><tr><td>FY04 President's Controls:</td><td>12.477</td><td>3.758</td><td>2.823</td></tr><tr><td>FY05 President's Controls:</td><td>8.314</td><td>3.716</td><td>3.850</td></tr><tr><td>Total Adjustments</td><td>-4.163</td><td>-0.042</td><td>1.027</td></tr><tr><td colspan="4">Summary of Adjustments</td></tr><tr><td>FY03 SBIR</td><td>-0.101</td><td></td><td></td></tr><tr><td>Misc Adjustments</td><td>-4.062</td><td>0.042</td><td>1.027</td></tr><tr><td>Subtotal</td><td>-4.163</td><td>0.042</td><td>1.027</td></tr></table> <p>(U) Schedule: ICWS final at sea test has slipped two quarters due to ship availability.</p> <p>(U) Technical: MIW C4ISR program has been restructured to reflect recently revised MIW C4I master plan.</p>			(U) Funding:	FY 2003	FY 2004	FY 2005	FY04 President's Controls:	12.477	3.758	2.823	FY05 President's Controls:	8.314	3.716	3.850	Total Adjustments	-4.163	-0.042	1.027	Summary of Adjustments				FY03 SBIR	-0.101			Misc Adjustments	-4.062	0.042	1.027	Subtotal	-4.163	0.042	1.027
(U) Funding:	FY 2003	FY 2004	FY 2005																															
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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2004			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-4		PROGRAM ELEMENT NUMBER AND NAME 0603502N, Surface and Shallow Water MCM		PROJECT NUMBER AND NAME 1233, Mine Counter Measures Mid-Life Upgrades					
(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>	To <u>Complete</u>	Total <u>Cost</u>
(U) E. ACQUISITION STRATEGY:									
ICWS will demonstrate common control of multiple unmanned systems. The original equipment manufacturers under a sole source Firm Fixed Price (FFP) contract have teamed with the Navy to develop the changes. Contract was awarded in FY00. MEDAL is an evolutionary program with a development cycle of one year per software build to coincide with GCCS-M build schedule.									
(U) F. MAJOR PERFORMERS:									
<ul style="list-style-type: none"> - Lockheed Martin, Manassas, VA: Primary hardware contractor for ICWS. - NSWC CSS, Panama City, FLA: System Engineering Support. - SAIC, McLean, VA: Primary software developer for MEDAL. 									

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Exhibit R-3 Cost Analysis (page 1)							DATE:					
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-4			0603502N, Surface and Shallow Water MCM			1233, Mine Counter Measures Mid-Life Upgrades						
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	SS/CPIF	Raytheon, RI	2.960								2.960	
Primary Hardware Development	SS/FFP	Lockheed Martin	3.484								3.484	N/A
Primary Hardware Development	WR/RCP	NSWC, CSS/NAWC	2.705	0.701	11/02						3.406	N/A
Systems Engineering	Various	NSWC, CSS/NAVAIR	10.777	1.519	11/02	0.360	11/03	0.600	11/04	Continuing	Continuing	N/A
Award Fees	SS/CPIF	Raytheon, RI	0.439								0.439	
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Remarks:

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Exhibit R-3 Cost Analysis (page 2)										DATE: February 2004		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-4			0603502N, Surface and Shallow Water MCM			1233, Mine Counter Measures Mid-Life Upgrades						
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	CPIF	Lockheed Martin	0.200								0.200	
Operational Test & Evaluation	CPIF	Lockheed Martin	1.592								1.592	
											0.000	
											0.000	
											0.000	
											0.000	
											0.000	
Subtotal T&E			1.792	0.000		0.000		0.000		0.000	1.792	
Remarks:												
Contractor Engineering Support			0.153								0.153	N/A
Government Engineering Support			0.500								0.500	N/A
Program Management Support	Various	NAVSEA	4.858	1.844	11/02	0.352	11/03	0.330	11/04	Continuing	Continuing	N/A
Program Management Support	CPFF	Vredenburg	0.506	0.254	11/02	0.306	11/03	0.164	11/04	Continuing	Continuing	N/A
Travel			0.160	0.065	11/02	0.103	11/03	0.100	11/04	Continuing	Continuing	N/A
SBIR Assessment			0.196								0.196	N/A
Subtotal Management			6.373	2.163		0.761		0.594		0.000	9.891	
Remarks:												
Total Cost			61.558	8.314		3.716		3.850		0.000	77.438	
Remarks:												

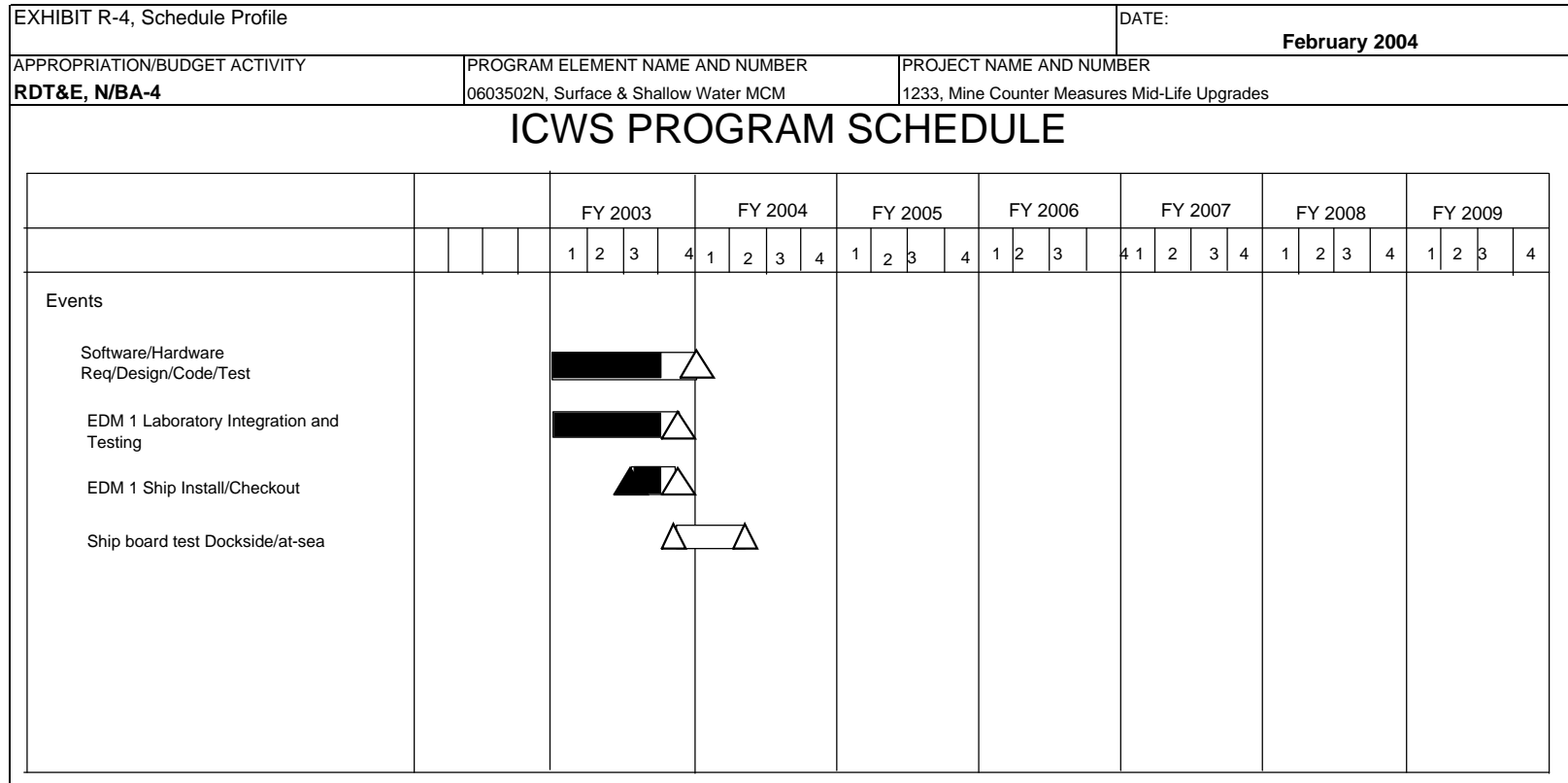
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Exhibit R-3, Project Cost Analysis
(Exhibit R-3, page 20 of 56)

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CLASSIFICATION:

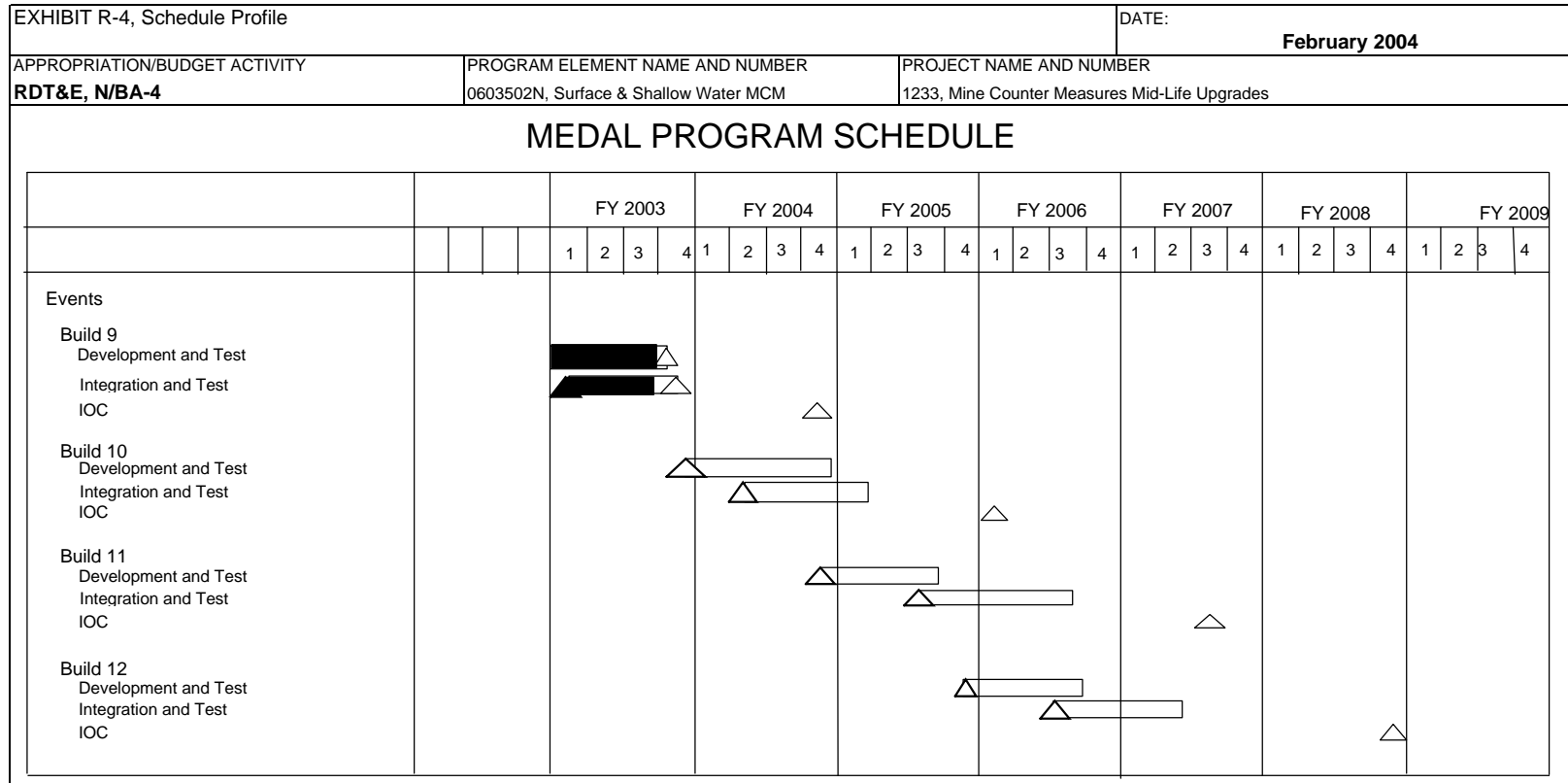


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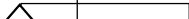




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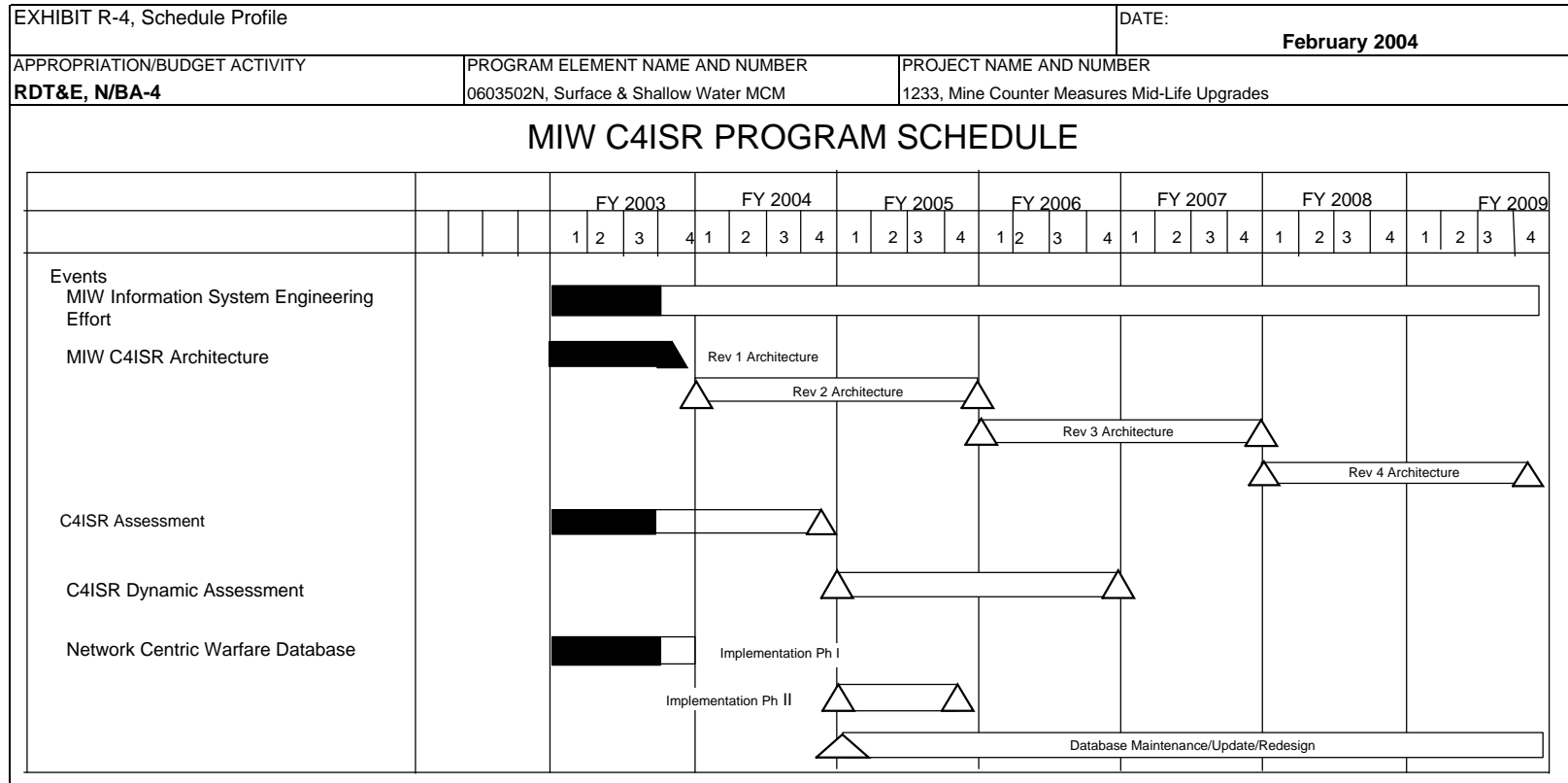
EXHIBIT R-4, Schedule Profile																DATE:				February 2004														
APPROPRIATION/BUDGET ACTIVITY					PROGRAM ELEMENT NAME AND NUMBER										PROJECT NAME AND NUMBER																			
RDT&E, N/BA-4					0603502N, Surface & Shallow Water MCM										1233, Mine Counter Measures Mid-Life Upgrades																			
MEDAL PROGRAM SCHEDULE CONT'D																																		
					FY 2003				FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 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						
Events																																		
Build 13																																		
Development and Test																																		
Integration and Test																																		
Build 14																																		
Development and Test																																		

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EXHIBIT R-4, Schedule Profile														DATE: February 2004																		
APPROPRIATION/BUDGET ACTIVITY					PROGRAM ELEMENT NAME AND NUMBER										PROJECT NAME AND NUMBER																	
RDT&E, N/BA-4					0603502N, Surface & Shallow Water MCM										1233, Mine Counter Measures Mid-Life Upgrades																	
MIW C4ISR PROGRAM SCHEDULE CONT'D																																
					FY 2003				FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 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				
Events cont'd																																
MIW Network Centric Warfare Info System Network																																
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Exhibit R-4a, Schedule Detail
(Exhibit R-4a, page 26 of 56)

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Exhibit R-4a, Schedule Detail
(Exhibit R-4a, page 27 of 56)

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Exhibit R-4a, Schedule Detail
(Exhibit R-4a, page 28 of 56)

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EXHIBIT R-2a, RDT&E Project Justification									DATE: February 2004		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-4		PROGRAM ELEMENT NUMBER AND NAME 0603502N, Surface and Shallow Water MCM				PROJECT NUMBER AND NAME 2131, Assault Breaching Systems					
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	182.981		4.580	2.967	17.277	29.273	37.599	28.813	28.841	Continuing	Continuing
RDT&E Articles Qty											0
<p>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</p> <p>This program provides for a combination of joint US Marine Corps and US Navy projects planned to counter the threat to amphibious landing forces from known and projected foreign land/sea mines and obstacles in the beach zone and surf zone approaches to amphibious assault areas. It develops a system of systems (Countermines/Counter Obstacle, Intelligence/Surveillance/Reconnaissance/Targeting (ISR/T), Navigation/Virtual Marking/Integration, C4I/Data Fusion) to provide a full assault breaching capability . Funding in Fiscal Year 2004 is a Congressional Plus-Up for Venom Penetrator.</p>											

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Exhibit R-2a, RDTEN Project Justification
(Exhibit R-2a, page 29 of 56)

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EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2004																
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-4	PROGRAM ELEMENT NUMBER AND NAME 0603502N, Surface and Shallow Water MCM	PROJECT NUMBER AND NAME 2131, Assault Breaching Systems																	
(U) B. Accomplishments/Planned Program																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Product Development</td> <td style="width: 15%;"></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></td> <td>0.550</td> <td>0.651</td> <td>10.521</td> </tr> <tr> <td>RDT&E Articles Quantity</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>					Product Development		FY 03	FY 04	FY 05	Accomplishments/Effort/Subtotal Cost		0.550	0.651	10.521	RDT&E Articles Quantity				
Product Development		FY 03	FY 04	FY 05															
Accomplishments/Effort/Subtotal Cost		0.550	0.651	10.521															
RDT&E Articles Quantity																			
<div style="border: 1px solid black; padding: 5px;"> Product Development: <u>Primary Hardware Development \$11.722:</u> ISR/Targeting Development (\$5.500 FY05). Government Furnished Equipment (GFE): Mine Threat Procurement for Development (\$0.550 FY03, \$ 1.000 FY05), Nav System/marketing development (\$2.500 FY05). Far term technology maturity (\$1.521 FY05); Venom Penetrator (\$0.651 FY04). </div>																			
<p>* FY04 funding in 0603782N.</p>																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Support</td> <td style="width: 15%;"></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></td> <td>0.992</td> <td>1.595</td> <td>2.075</td> </tr> <tr> <td>RDT&E Articles Quantity</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>					Support		FY 03	FY 04	FY 05	Accomplishments/Effort/Subtotal Cost		0.992	1.595	2.075	RDT&E Articles Quantity				
Support		FY 03	FY 04	FY 05															
Accomplishments/Effort/Subtotal Cost		0.992	1.595	2.075															
RDT&E Articles Quantity																			
<div style="border: 1px solid black; padding: 5px;"> Support: <u>Development Support Equipment \$0.825:</u> Tactical Decision Aid Development (\$0.825 FY05) <u>Studies and Analysis \$3.837:</u> ABS Mission Area Analysis (MAA) (\$0.375 FY03). Modeling and Simulation in support of Far-Term Development (\$0.387 FY03, \$0.250 FY05). Mine Migration Studies in support of requirements development (\$0.230 FY03, \$0.200 FY05). Mine Vulnerability Studies (\$0.200 FY05). C4I/Data Fusion (\$0.200 FY05), ABS Scalability study (\$0.400 FY05); Venon Penetrator (\$1.595 FY04). </div>																			

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EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2004																
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-4	PROGRAM ELEMENT NUMBER AND NAME 0603502N, Surface and Shallow Water MCM	PROJECT NUMBER AND NAME 2131, Assault Breaching Systems																	
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Test and Evaluation		FY 03	FY 04	FY 05															
Accomplishments/Effort/Subtotal Cost		1.370	0.159	0.010															
RDT&E Articles Quantity																			
<div style="border: 1px solid black; padding: 5px;"> Test and Evaluation: <u>Developmental Test and Evaluation, \$1.539:</u> Tests/studies in support of requirements development include: lane width study, mine burial/migration, mine burial effects, mine vulnerability (\$0.736 FY03). Navigation Operational Test Support (\$0.010 FY05). Lethality test matrix (\$0.634 FY03); Venom Penetrator (\$0.159 FY04). </div>																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Management</td> <td style="width: 15%;"></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></td> <td>1.668</td> <td>0.562</td> <td>4.671</td> </tr> <tr> <td>RDT&E Articles Quantity</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>					Management		FY 03	FY 04	FY 05	Accomplishments/Effort/Subtotal Cost		1.668	0.562	4.671	RDT&E Articles Quantity				
Management		FY 03	FY 04	FY 05															
Accomplishments/Effort/Subtotal Cost		1.668	0.562	4.671															
RDT&E Articles Quantity																			
<div style="border: 1px solid black; padding: 5px;"> Management: <u>Program Management Support, \$2.640:</u> (\$0.085 FY03, \$0.211 FY04, \$2.344 FY05) <u>Contractor Engineering Support, \$0.932:</u> In-house contractor support (Vredenberg and Northrop Grumman) (\$0.410 FY03, \$0.522 FY05) <u>Government Engineering Support, \$3.329:</u> Technical Direction Agent/Design Agent (TDA/DA) Engineering Support of Mission Area Analysis, Analysis of Alternatives, Milestone B preparation, contract and acquisition documentation, Requirements Generation - Initial Capabilities Document (ICD), Capability Development Documents (CDO), Capability Production Documents (CPD), Analysis of Material approvals and Functional needs analysis/functional solutions analysis, Mine magazine inventory management and shipping, contract management and tests/studies. (\$1.173 FY03, \$1.805 FY05); Venom Penetrator (\$0.351 FY04) . </div>																			
R-1 SHOPPING LIST - Item No. 36																			

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2004	
APPROPRIATION/BUDGET ACTIVITY RDTE&E, N / BA-4	PROGRAM ELEMENT NUMBER AND NAME 0603502N, Surface and Shallow Water MCM	PROJECT NUMBER AND NAME 2131, Assault Breaching Systems	
(U) C. PROGRAM CHANGE SUMMARY:			
(U) Funding:	FY 2003	FY 2004	FY 2005
FY04 President's Budget:	0.662	0.000	17.620
FY05 President's Budget:	4.580	2.967	17.277
Total Adjustments	3.918	2.967	-0.343
Summary of Adjustments			
FY03 SBIR	-0.110		
Congressional Plus-Up Venon Penetrator		3.000	
Misc Adjustments	4.028	-0.033	-0.343
Subtotal	3.918	2.967	-0.343
(U) Schedule:			
Not Applicable			
(U) Technical:			
Not Applicable			

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2004																															
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-4		PROGRAM ELEMENT NUMBER AND NAME 0603502N, Surface and Shallow Water MCM		PROJECT NUMBER AND NAME 2131, Assault Breaching Systems																																	
<p>(U) D. OTHER PROGRAM FUNDING SUMMARY:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 35%;"><u>Line Item No. & Name</u></th> <th style="text-align: center; width: 8%;"><u>FY 2003</u></th> <th style="text-align: center; width: 8%;"><u>FY 2004</u></th> <th style="text-align: center; width: 8%;"><u>FY 2005</u></th> <th style="text-align: center; width: 8%;"><u>FY 2006</u></th> <th style="text-align: center; width: 8%;"><u>FY 2007</u></th> <th style="text-align: center; width: 8%;"><u>FY 2008</u></th> <th style="text-align: center; width: 8%;"><u>FY 2009</u></th> <th style="text-align: center; width: 10%;"><u>To Complete</u></th> <th style="text-align: center; width: 10%;"><u>Total Cost</u></th> </tr> </thead> <tbody> <tr> <td>BLI 2624000 Shallow Water MCM</td> <td></td> <td></td> <td style="text-align: center;">0</td> <td style="text-align: center;">2.294</td> <td style="text-align: center;">2.255</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>0603782N Shallow Water MCM Demos</td> <td></td> <td style="text-align: center;">12.0*</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>*\$12M is ABS specific. Funding exists across the FYDP in this PE for other mine warfare efforts.</p>								<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>	BLI 2624000 Shallow Water MCM			0	2.294	2.255					0603782N Shallow Water MCM Demos		12.0*							
<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>																												
BLI 2624000 Shallow Water MCM			0	2.294	2.255																																
0603782N Shallow Water MCM Demos		12.0*																																			
<p>(U) E. ACQUISITION STRATEGY:</p> <p>The FY03, FY04 and FY05 ICD and CDD tasks specifically complete the requirements generation process for the overarching mission area of Amphibious Operations in a Mined Environment leading to a MS B decision during FY06. The MAA will provide the foundation for the "system of systems ICD/CDD required for Amphibious Operations in a Mined Environment. The FY03, FY04 and FY05 tasks will also allow the Navy to demonstrate the viability of concepts for Far Term System of Systems capabilities and justify the need for future funding. The FY03 and FY04 funding is crucial to maintaining a pool of experienced ABS team members at the government labs and industry and for the program to maintain its inventory of threat mines that will be required for future mine lethality and vulnerability tests. The FY03, FY04 and FY05 tasks will develop ISR/Targeting systems and Navigation systems to support the Assault Breaching Mission.</p>																																					
<p>(U) F. MAJOR PERFORMERS:</p> <ul style="list-style-type: none"> - NSWC, IH: Provide system engineering and test and evaluation support. - NSWC, CSS: Provide Technical Direction Agent , systems engineering and test and evaluation support. - TBD: Far Term ABS System contractor 																																					

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(Exhibit R-3, page 34 of 56)

Exhibit R-3 Cost Analysis (page 1)								DATE:				
								February 2004				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-4			0603502N, Surface and Shallow Water MCM			2131, Assault Breaching Systems						
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	WR	IH, CSS, TBD	54.554			0.651	11/03	9.521	11/04	Continuing	Continuing	N/A
Ancillary Hardware Development	WR	IH, CSS, TBD	8.100							Continuing	Continuing	N/A
Aircraft Integration											0.000	
Ship Integration											0.000	
Ship Suitability											0.000	
Systems Engineering	WR	IH, CSS	16.233							Continuing	Continuing	N/A
Training Development	WR	IH, CSS	2.000								2.000	N/A
Licenses	WR	N/A	0.800								0.800	N/A
Tooling	WR	IH, CSS, TBD	0.860								0.860	N/A
GFE	WR	IH, CSS	3.650	0.550	06/03			1.000	11/04	Continuing	Continuing	N/A
Award Fees	N/A	N/A	0.500								0.500	N/A
											0.000	
											0.000	
											0.000	
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											0.000	
Subtotal Product Development			86.697	0.550		0.651		10.521		0.000	98.419	

Remarks:

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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-??			0603502N, Surface and Shallow Water MCM			2131, Assault Breaching Systems						
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
Development Support Equipment	WR	IH, CSS, TBD	11.721					0.825	11/04	Continuing	Continuing	N/A
Software Development	WR	CSS	8.037								8.037	N/A
Integrated Logistics Support	WR	IH, CSS	2.712								2.712	N/A
Configuration Management	WR	IH, CSS	3.744								3.744	N/A
Technical Data	WR	IH, CSS	2.588								2.588	N/A
Studies & Analysis	WR	IH,CSS		0.992	01/03	1.595	11/03	1.250	11/04	Continuing	Continuing	
GFE	WR	IH, CSS	0.400								0.400	N/A
Award Fees											0.000	
											0.000	
											0.000	
											0.000	
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											0.000	
Subtotal Support			29.202	0.992		1.595		2.075		0.000	33.864	
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						
RDT&E, N / BA-4			0603502N, Surface and Shallow Water MCM			2131, Assault Breaching Systems						
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	WR, PD	IH, CSS, ONR, TBD	24.893	1.370	01/03	0.159	11/03	0.010	11/04	Continuing	Continuing	N/A
Operational Test & Evaluation	WR	IH, CSS, TBD	8.655								8.655	N/A
Live Fire Test & Evaluation											0.000	
Test Assets											0.000	
Tooling	WR	IH, CSS, TBD	0.700								0.700	N/A
GFE	WR	IH, CSS, TBD	0.400								0.400	N/A
Award Fees											0.000	
Subtotal T&E			34.648	1.370		0.159		0.010			36.187	
Remarks:												
Contractor Engineering Support	CPFF	Vredenburg, Northrup Grumman	2.679	0.410	1/03			0.522	11/04	Continuing	Continuing	N/A
Government Engineering Support	WR	IH, CSS	17.564	1.173	11/02	0.351	11/03	1.805	11/04	Continuing	Continuing	N/A
Program Management Support	WR	IH, CSS, NAVSEA	11.281	0.045		0.211	11/03	2.269	11/04	Continuing	Continuing	N/A
Travel	PD	NAVSEA	0.837	0.040	11/02			0.075	11/04	Continuing	Continuing	N/A
Transportation											0.000	
SBIR Assessment	Various	Various	0.073								0.073	N/A
Subtotal Management			32.434	1.668		0.562		4.671			39.335	
Remarks:												
Total Cost			182.981	4.580		2.967		17.277		0.000	207.805	
Remarks:												

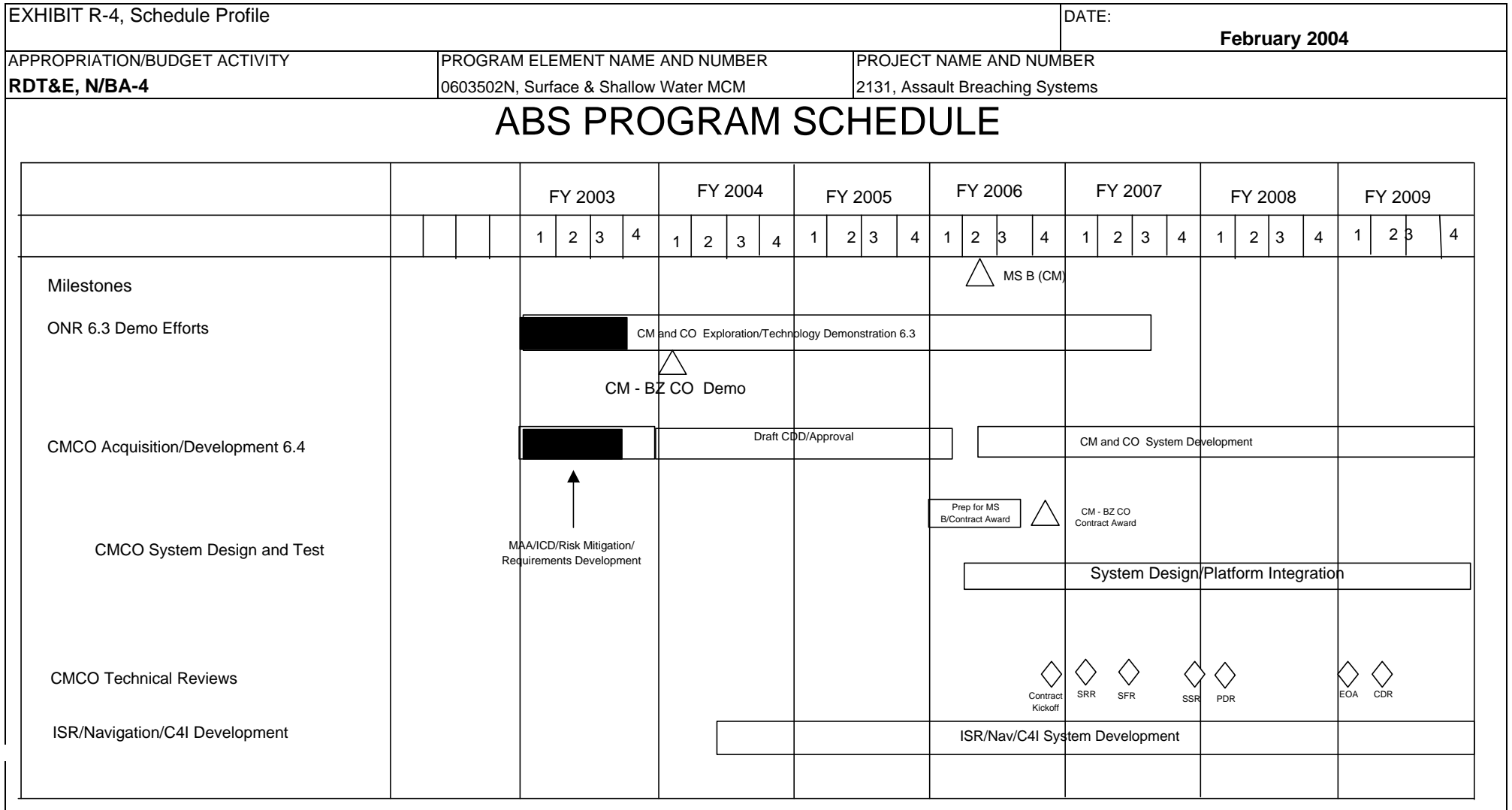
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Exhibit R-3, Project Cost Analysis
(Exhibit R-3, page 36 of 56)

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Exhibit R-4, Schedule Profile
(Exhibit R-4, page 37 of 56)

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Exhibit R-4a, Schedule Detail
(Exhibit R-4a, page 38 of 56)

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification								DATE: February 2004				
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-4		PROGRAM ELEMENT NUMBER AND NAME Surface & Shallow Water MCM, 0603502N				PROJECT NUMBER AND NAME Unmanned Undersea Vehicle Q2094/Q2852						
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		168.982	69.185	80.537	65.580	55.566	47.654	47.870	57.673		Continuing	Continuing
RDT&E Articles Qty					1							1
A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project was completely restructured in FY 1994 in response to Congressional direction provided in the FY 1994 DOD Appropriations Act. Specifically, the office of the Secretary of Defense and the Navy were directed to (1) establish priorities among various proposed UUV programs, (2) focus on near-term mine countermeasures issues, and (3) establish affordable, cost-effective programs. The Navy developed an overall UUV Program Plan, which was approved by ASN(RD&A) June 1994, endorsed by USD(A&T) and forwarded to Congress to support FY 1995 budget deliberations. The UUV Program Plan has been ratified in succeeding revisions, the most recent being April 2000. The UUV Program Plan establishes a clandestine, mine reconnaissance capability as the Navy's top UUV priority; the conduct of surveillance, intelligence and tactical oceanography missions as priority two; and exploring advanced UUV designs for the future as priority three. The UUV project funds development of the UUV Program Plan. The AN/BLQ-11 Long-Term Mine Reconnaissance System (LMRS) is being developed to provide a robust, long-term Fleet capability to conduct clandestine minefield reconnaissance. A quantity of 10 LMRs will be procured in the FYDP beginning in FY05. The LMRS Inventory Objective is 12. The Navy's second priority is the conduct of surveillance, intelligence and tactical oceanography. To meet this requirement the Navy will develop a Mission Reconfigurable UUV (MRUUV) system that is capable of performing different missions. It is envisioned that this system will adapt elements of the LMRS design to develop a more modular UUV capable of accomodating multiple payload sensors appropriate to meet various mission requirements. ONR will develop technologies for payload sensors and increased autonomy under the Autonomous Operations Future Naval Capability (FNC) programs to support risk mitigation for the MRUUV program. Technologies from these systems will transition to MRUUV during the FNC demonstration year. Technology Transition agreements between the Program office and ONR have been signed. An AOA for the Large Displacement (LD) MRUUV commenced in FY03 and will complete in second quarter FY04.												

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Exhibit R-2a, RDTEN Project Justification
(Exhibit R-2a, page 39 of 56)

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2004																
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-4	PROGRAM ELEMENT NUMBER AND NAME Surface & Shallow Water MCM, 0603502N	PROJECT NUMBER AND NAME Unmanned Undersea Vehicle Q2094/Q2852																	
(U) B. Accomplishments/Planned Program																			
<table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="width: 30%;">LMRS</td><td style="width: 15%;">FY 03</td><td style="width: 15%;">FY 04</td><td style="width: 15%;">FY 05</td><td style="width: 25%;"></td></tr><tr><td>Accomplishments/Effort/Subtotal Cost</td><td>32.100</td><td>30.139</td><td>11.467</td><td></td></tr><tr><td>RDT&E Articles Quantity</td><td>0</td><td>0</td><td>1</td><td></td></tr></table> <div style="border: 1px solid black; height: 60px; margin-top: 10px;"></div>					LMRS	FY 03	FY 04	FY 05		Accomplishments/Effort/Subtotal Cost	32.100	30.139	11.467		RDT&E Articles Quantity	0	0	1	
LMRS	FY 03	FY 04	FY 05																
Accomplishments/Effort/Subtotal Cost	32.100	30.139	11.467																
RDT&E Articles Quantity	0	0	1																
<table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="width: 30%;">MRUUV</td><td style="width: 15%;">FY 03</td><td style="width: 15%;">FY 04</td><td style="width: 15%;">FY 05</td><td style="width: 25%;"></td></tr><tr><td>Accomplishments/Effort/Subtotal Cost</td><td>15.135</td><td>25.400</td><td>43.413</td><td></td></tr><tr><td>RDT&E Articles Quantity</td><td>0</td><td>0</td><td>0</td><td></td></tr></table> <div style="border: 1px solid black; height: 60px; margin-top: 10px;"></div>					MRUUV	FY 03	FY 04	FY 05		Accomplishments/Effort/Subtotal Cost	15.135	25.400	43.413		RDT&E Articles Quantity	0	0	0	
MRUUV	FY 03	FY 04	FY 05																
Accomplishments/Effort/Subtotal Cost	15.135	25.400	43.413																
RDT&E Articles Quantity	0	0	0																
<div style="border: 1px solid black; height: 60px; margin-top: 10px;"></div>																			
<table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="width: 30%;">LMRS P3I</td><td style="width: 15%;">FY 03</td><td style="width: 15%;">FY 04</td><td style="width: 15%;">FY 05</td><td style="width: 25%;"></td></tr><tr><td>Accomplishments/Effort/Subtotal Cost</td><td>21.950</td><td>24.998</td><td>10.700</td><td></td></tr><tr><td>RDT&E Articles Quantity</td><td>0</td><td>0</td><td>0</td><td></td></tr></table> <div style="border: 1px solid black; height: 60px; margin-top: 10px;"></div>					LMRS P3I	FY 03	FY 04	FY 05		Accomplishments/Effort/Subtotal Cost	21.950	24.998	10.700		RDT&E Articles Quantity	0	0	0	
LMRS P3I	FY 03	FY 04	FY 05																
Accomplishments/Effort/Subtotal Cost	21.950	24.998	10.700																
RDT&E Articles Quantity	0	0	0																

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2004	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-4	PROGRAM ELEMENT NUMBER AND NAME Surface & Shallow Water MCM, 060325N	PROJECT NUMBER AND NAME Unmanned Undersea Vehicle Q2094/ Q2852	
(U) C. PROGRAM CHANGE SUMMARY:			
(U) Funding:	FY 2003	FY 2004	FY 2005
FY04 President's Controls:	74.425	81.457	65.956
FY05 President's Controls:	69.185	80.537	65.580
Total Adjustments	-5.240	-0.920	-0.376
Summary of Adjustments			
FY03 SBIR	-1.450		
MISC Adjustments	-0.190	-0.920	-0.376
Sponsor Reprogram	-3.600		
Subtotal	-5.240	-0.920	-0.376
(U) Schedule: Not Applicable			
(U) Technical: Not Applicable			

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2004																						
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-4			PROGRAM ELEMENT NUMBER AND NAME Surface & Shallow Water MCM, 0603502N			PROJECT NUMBER AND NAME Unmanned Undersea Vehicle Q2094/Q2852																							
<p>(U) D. OTHER PROGRAM FUNDING SUMMARY:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Line Item No. & Name</th> <th style="text-align: right; border-bottom: 1px solid black;">FY 2003</th> <th style="text-align: right; border-bottom: 1px solid black;">FY 2004</th> <th style="text-align: right; border-bottom: 1px solid black;">FY 2005</th> <th style="text-align: right; border-bottom: 1px solid black;">FY 2006</th> <th style="text-align: right; border-bottom: 1px solid black;">FY 2007</th> <th style="text-align: right; border-bottom: 1px solid black;">FY 2008</th> <th style="text-align: right; border-bottom: 1px solid black;">FY 2009</th> <th style="text-align: right; border-bottom: 1px solid black;">To Complete</th> <th style="text-align: right; border-bottom: 1px solid black;">Total Cost</th> </tr> </thead> <tbody> <tr> <td>OPN PE 020481N; Line Item 217100</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">61.253</td> <td style="text-align: right;">49.006</td> <td style="text-align: right;">63.280</td> <td style="text-align: right;">63.531</td> <td style="text-align: right;">64.369</td> <td style="text-align: right;">Continuing</td> <td style="text-align: right;">Continuing</td> </tr> </tbody> </table> <p style="margin-top: 20px;">(U) E. ACQUISITION STRATEGY: *</p> <p>The LMRS acquisition strategy is structured to maximize competition during system development. In FY97 three one year contracts were awarded for development of preliminary design. In early FY98, two of the preliminary design contractors were selected to continue development through a critical design review. Selection of these two contractors was based primarily on the contractor's performance during the preliminary design contract. In early FY00, Boeing was selected to complete the LMRS design, fabricate a prototype system and support in-water testing. Procurement of the LMRS will be sole source to Boeing. A competitive procurement is not cost effective due to the limited number of systems planned for procurement. PBD 130C added \$40M to FY03 to accelerate the development of more advanced UUVs. Funding was used to accelerate the development of Synthetic Aperture Sonar (SAS), LMRS Precision Underwater Mapping (L-PUMA), and Mission Reconfigurable UUV (MRUUV) to address multiple missions. The MRUUV project completed a requirements analysis, acquisition planning and specification development in FY03. A contract was awarded to Lockheed Martin in May 2003 to develop an Advanced Development Unmanned Undersea Vehicle (ADUUV) to reduce technical risk for the MRUUV. The ADUUV contract includes a priced option for the development of the 21" MRUUV which will be exercised following Milestone B, which is expected early 2004.</p> <p>(U) F. MAJOR PERFORMERS: **</p> <p>Boeing - Anaheim, CA - Design and fabrication of prototype LMRS. Lockheed Martin - West Palm Beach, FL - Design and fabrication of prototype MRUUV.</p>										Line Item No. & Name	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Cost	OPN PE 020481N; Line Item 217100	0.000	0.000	61.253	49.006	63.280	63.531	64.369	Continuing	Continuing
Line Item No. & Name	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Cost																				
OPN PE 020481N; Line Item 217100	0.000	0.000	61.253	49.006	63.280	63.531	64.369	Continuing	Continuing																				

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CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)								DATE: February 2004				
APPROPRIATION/BUDGET ACTIVITY RDTE&E, N / BA-4			PROGRAM ELEMENT Surface & Shallow Water MCM, 0603502N			PROJECT NUMBER AND NAME Unmanned Undersea Vehicle Q2094/Q2852						
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
LMRS	CPAF/IF	Boeing	73.679	13.170	N/A	8.129	N/A	0.842	N/A	Continuing	Continuing	95.820
Fees			5.939	3.614	N/A	2.210	N/A	0.000	N/A	Continuing	Continuing	
LMRS	Various	Various	40.611	4.922	N/A	10.970	N/A	6.225	N/A	Continuing	Continuing	
MRUUV	CPIF	Lockheed Martin	0.000	6.750	05/03	16.226	N/A	29.322	N/A	Continuing	Continuing	
MRUUV	Various	Various	2.100	8.385	N/A	9.174	N/A	14.091	N/A	Continuing	Continuing	
UUV P31	Various	Various	9.153	21.950	N/A	24.998	N/A	10.700	N/A	Continuing	Continuing	
UUV Test center	Various	Various	7.502	0.000	N/A	0.000	N/A	0.000	N/A	N/A	Continuing	
											0.000	
											0.000	
											0.000	
											0.000	
Subtotal Product Development			138.984	58.791		71.707		61.180		0.000	330.662	
Remarks:												
Development Support											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&E, N / BA-4			Surface & Shallow Water MCM, 0603502N			Unmanned Undersea Vehicle Q2094/Q2852						
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	Various	Various	0.340	2.391	N/A	1.592	N/A	0.000	N/A	0.000	4.323	N/A
Operational Test & Evaluation	WR	Various	0.000	0.000	N/A	1.120	N/A	0.000	N/A	0.000	1.120	N/A
GFE/GFI	Various	Various	0.644	0.000	N/A	0.000	N/A	0.000	N/A	Continuing	Continuing	N/A
TTLRF	WR	Various	4.476	1.806	N/A	0.799	N/A	0.000	N/A	Continuing	Continuing	N/A
											0.000	
											0.000	
Award Fees											0.000	
Subtotal T&E			5.460	4.197		3.511		0.000		0.000	13.168	
Remarks:												
Contractor Engineering Support			4.204	0.820	N/A	1.000	N/A	1.000	N/A	Continuing	Continuing	
Government Engineering Support			16.030	4.477	N/A	3.419	N/A	2.620	N/A	Continuing	Continuing	
Program Management Support			4.304	0.900	N/A	0.900	N/A	0.780	N/A	Continuing	Continuing	
											0.000	
											0.000	
Subtotal Management			24.538	6.197		5.319		4.400		Continuing	Continuing	
Remarks:												
Total Cost			168.982	69.185		80.537		65.580		Continuing	Continuing	
Remarks:												

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Exhibit R-3, Project Cost Analysis
(Exhibit R-3, page 44 of 56)

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VIRGINIA CLASS FOT&E |

CLASSIFICATION:

EXHIBIT R4, Schedule Profile																							DATE:					
																							February 2004					
APPROPRIATION/BUDGET ACTIVITY								PROGRAM ELEMENT NUMBER AND NAME								PROJECT NUMBER AND NAME												
RDT&E, N /								Surface & Shallow Water MCM, 0603502N								Unmanned Undersea Vehicle Q2094/Q2852												
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
LMRS Program Milestones																												
EVENTS																												
Test & Evaluation Milestones																												
PRODUCTION																												
P3I																												
SAS/ACOMMS Milestones																												
Test & Evaluation																												
L-PUMA Milestones																												
SAS/ACOMMS & LPUMA Integration																												
MRUUV Requirments Definition, Risk Reduction and Pre-design																												
Development Phase																												
Deliveries																												

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

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Exhibit R-4, Schedule Profile
(Exhibit R-4, page 45 of 56)

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CLASSIFICATION:

Exhibit R-4a, Schedule Detail						DATE: February 2004		
APPROPRIATION/BUDGET ACTIVITY RDT&BA-4		PROGRAM ELEMENT Surface & Shallow Water MCM, 0603502N				PROJECT NUMBER AND NAME Unmanned Undersea Vehicle Q2094/Q2852		
Schedule Profile	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	
LMRS								
Milestone III			1Q					
IOC			1Q					
Production Contract			2Q					
DVT	4Q							
DT II A		1Q						
DTII B		2Q						
TECHEVAL		3Q						
OPEVAL		4Q						
LMRS P3I								
SASJACOMMS								
FOT&E			3Q-4Q					
IOC				1Q				
LPUMA								
FOT&E						3Q-4Q		
IOC							1Q	
MRUUV								
21" Design Contract Award	3Q							
21" MSB		2Q						
21"MRUUV IOC						2Q		
Low Rate Initial Production Contract						2Q		
Large Displacement (LD) MRUUV AOA		2Q						

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Exhibit R-4a, Schedule Detail
(Exhibit R-4a, page 46 of 56)

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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-4	0603502N, Surface and Shallow Water MCM					4025, Expendable Mine Neutralization System					
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		0.000	0.000	2.177	11.443	0.000	0.000	0.000	0.000	13.620
RDT&E Articles Qty						1					1

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

Expendable Mine Neutralization System (EMNS) is a replacement to the existing AN/SLQ-48 Mine Neutralization System (MNS). The current program replaces the MNS with EMNS on the 14 MCM Avenger Class Ships. EMNS will leverage off of on-going efforts in the Aviation Mine Countermeasures Program (NAVSEA PEO LMW PMS210) to develop an Airborne Mine Neutralization System (AMNS).

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Exhibit R-2a, RDTEN Project Justification
(Exhibit R-2a, page 47 of 56)

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2004	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-4	PROGRAM ELEMENT NUMBER AND NAME 0603502N, Surface and Shallow Water MCM	PROJECT NUMBER AND NAME 4025, Expendable Mine Neutralization System		
(U) B. Accomplishments/Planned Program				
Product Development		FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost		0.000	0.000	1.677
RDT&E Articles Quantity				
Product Development: Award Development Contract for Expendable Mine Neutralization System (EMNS) developer. Initiate hardware/software design and development. Conduct preliminary design.				
Support		FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost		0.000	0.000	0.300
RDT&E Articles Quantity				
Support: Develop interactive electronic technical manual; Modify software for use on an MCM class ship.				

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Exhibit R-2a, RD TEN Project Justification
(Exhibit R-2a, page 48 of 56)

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2004																
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-4	PROGRAM ELEMENT NUMBER AND NAME 0603502N, Surface and Shallow Water MCM	PROJECT NUMBER AND NAME 4025, Expendable Mine Neutralization System																	
(U) B. Accomplishments/Planned Program																			
<table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th style="width: 30%;">Test and Evaluation</th><th style="width: 15%;"></th><th style="width: 15%;">FY 03</th><th style="width: 15%;">FY 04</th><th style="width: 15%;">FY 05</th></tr></thead><tbody><tr><td>Accomplishments/Effort/Subtotal Cost</td><td></td><td style="text-align: center;">0.000</td><td style="text-align: center;">0.000</td><td style="text-align: center;">0.000</td></tr><tr><td>RDT&E Articles Quantity</td><td></td><td></td><td></td><td></td></tr></tbody></table>					Test and Evaluation		FY 03	FY 04	FY 05	Accomplishments/Effort/Subtotal Cost		0.000	0.000	0.000	RDT&E Articles Quantity				
Test and Evaluation		FY 03	FY 04	FY 05															
Accomplishments/Effort/Subtotal Cost		0.000	0.000	0.000															
RDT&E Articles Quantity																			
<div style="border: 1px solid black; height: 100px; margin-top: 10px;"></div>																			
<table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th style="width: 30%;">Management</th><th style="width: 15%;"></th><th style="width: 15%;">FY 03</th><th style="width: 15%;">FY 04</th><th style="width: 15%;">FY 05</th></tr></thead><tbody><tr><td>Accomplishments/Effort/Subtotal Cost</td><td></td><td style="text-align: center;">0.000</td><td style="text-align: center;">0.000</td><td style="text-align: center;">0.200</td></tr><tr><td>RDT&E Articles Quantity</td><td></td><td></td><td></td><td></td></tr></tbody></table>					Management		FY 03	FY 04	FY 05	Accomplishments/Effort/Subtotal Cost		0.000	0.000	0.200	RDT&E Articles Quantity				
Management		FY 03	FY 04	FY 05															
Accomplishments/Effort/Subtotal Cost		0.000	0.000	0.200															
RDT&E Articles Quantity																			
<div style="border: 1px solid black; height: 100px; margin-top: 10px;"></div>																			

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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-4	0603502N, Surface and Shallow Water MCM	4025, Expendable Mine Neutralization System																									
<p>(U) C. PROGRAM CHANGE SUMMARY:</p> <table> <tr> <td>(U) Funding:</td> <td>FY 2003</td> <td>FY 2004</td> <td>FY 2005</td> </tr> <tr> <td>FY04 President's Controls:</td> <td>0.000</td> <td>0.000</td> <td>0.000</td> </tr> <tr> <td>FY05 President's Controls:</td> <td>0.000</td> <td>0.000</td> <td>2.177</td> </tr> <tr> <td>Total Adjustments</td> <td>0.000</td> <td>0.000</td> <td>2.177</td> </tr> </table> <p>Summary of Adjustments</p> <table> <tr> <td>Initiation of EMNS</td> <td></td> <td></td> <td>2.177</td> </tr> <tr> <td>Subtotal</td> <td>0.000</td> <td>0.000</td> <td>2.177</td> </tr> </table> <p>(U) Schedule: Not Applicable</p> <p>(U) Technical: Not Applicable</p>				(U) Funding:	FY 2003	FY 2004	FY 2005	FY04 President's Controls:	0.000	0.000	0.000	FY05 President's Controls:	0.000	0.000	2.177	Total Adjustments	0.000	0.000	2.177	Initiation of EMNS			2.177	Subtotal	0.000	0.000	2.177
(U) Funding:	FY 2003	FY 2004	FY 2005																								
FY04 President's Controls:	0.000	0.000	0.000																								
FY05 President's Controls:	0.000	0.000	2.177																								
Total Adjustments	0.000	0.000	2.177																								
Initiation of EMNS			2.177																								
Subtotal	0.000	0.000	2.177																								

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification								DATE: February 2004	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-4		PROGRAM ELEMENT NUMBER AND NAME 0603502N, Surface and Shallow Water MCM			PROJECT NUMBER AND NAME 4025, Expendable Mine Neutralization System				

(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>
Line 262200, OPN EMNS	0	0	0	0	13905	10603	10322	18977	53807
Total	0	0	0	0	13905	10603	10322	18977	53807

(U) E. ACQUISITION STRATEGY:

The Aviation Mine Countermeasures Program (NAVSEA PEO LMW PMS 210) is developing two Airborne Mine Neutralization variants for the H-53 helicopters. Based on Surface Ship requirements one of these two variants will be selected for use on the MCM Avenger Class Ships. The acquisition strategy will be to either compete between the two alternatives, or select the one that best meets fleet needs.

(U) F. MAJOR PERFORMERS:

The Technical Design Agent will be NSWC, Costal Systems Station, Panama City.
 The installation of the new system will be performed by Puget Sound.

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Remarks:

Exhibit R-3 Cost Analysis (page 1)

DATE:

February 2004

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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. Johnson
3. Organic Chemistry	Study of carbon compounds and their reactions.	3	10	1	Dr. Williams
4. Inorganic Chemistry	Study of non-carbon compounds and their properties.	4	10	2	Prof. Brown
5. Physical Chemistry	Study of the physical properties and behavior of matter.	5	11	1	Dr. Davis
6. Analytical Chemistry	Study of the methods for identifying and quantifying substances.	6	11	2	Ms. Garcia
7. Environmental Chemistry	Study of the chemical processes and pollutants in the environment.	7	12	1	Dr. Miller
8. Biochemistry	Study of the chemical processes within living organisms.	8	12	2	Prof. Wilson
9. Research Project	Independent research project on a topic of interest.	9	12	1	Dr. Moore
10. Final Examination	Comprehensive examination covering all topics.	10	12	2	Dr. Taylor

PROJECT NUMBER AND NAME

RDT&E, N / BA-4

0603502N, Surface and Shallow Water MCM

4025. Expendable Mine Neutralization System

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
Hardware Development & Integration	CPIF	TBD	0.000	0.000		0.000		0.500	11/04	Continuing	Continuing	N/A
Hardware Development & Integration	WR	NSWC, CSS	0.000	0.000		0.000		0.200	10/04	Continuing	Continuing	N/A
Systems Engineering	CPIF	TBD	0.000	0.000		0.000		0.250	11/04	Continuing	Continuing	N/A
Systems Engineering	WR	NSWC, CSS	0.000	0.000		0.000		0.727	10/04	Continuing	Continuing	N/A
											0.000	N/A
											0.000	N/A
											0.000	N/A
											0.000	
											0.000	
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											0.000	
											0.000	
											0.000	
											0.000	
											0.000	
											0.000	
Subtotal Product Development			0.000	0.000		0.000		1.677		0.000	1.677	

Remarks:

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Exhibit R-3, Project Cost Analysis
(Exhibit R-3, page 53 of 56)

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CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)									DATE: February 2004			
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-4			0603502N, Surface and Shallow Water MCM			4025, Expendable Mine Neutralization System						
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
											0.000	N/A
											0.000	N/A
											0.000	N/A
											0.000	
											0.000	
											0.000	
											0.000	
Subtotal T&E			0.000	0.000		0.000		0.000		0.000	0.000	
Remarks:												
Program Mangement Support	CPFF	Vredenburg	0.000	0.000		0.000		0.150	10/04	Continuing	Continuing	N/A
Travel	Various	NAVSEA	0.000	0.000		0.000		0.050	10/04	Continuing	Continuing	N/A
											0.000	N/A
											0.000	N/A
											0.000	N/A
											0.000	
Subtotal Management			0.000	0.000		0.000		0.200		0.000	0.200	
Remarks:												
Total Cost			0.000	0.000		0.000		2.177		0.000	2.177	
Remarks:												

R-1 SHOPPING LIST - Item No. 36

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Exhibit R-3, Project Cost Analysis
(Exhibit R-3, page 54 of 56)

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CLASSIFICATION:

EXHIBIT R-4, Schedule Profile																DATE: February 2004																
APPROPRIATION/BUDGET ACTIVITY					PROGRAM ELEMENT NAME AND NUMBER								PROJECT NAME AND NUMBER																			
RDT&E, N/BA-4					0603502N, Surface & Shallow Water MCM								4025, Expendable Mine Neutralization System																			
EMNS PROGRAM SCHEDULE																																
					FY 2003				FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 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
Contract Award													△																			
HW/SW Design and Development													□				□															
Preliminary Design Review													△																			
Critical Design Review																	△															
EDM Installation & C/O																					□											
System Testing																									□							

R-1 SHOPPING LIST - Item No. 36

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Exhibit R-4, Schedule Profile
(Exhibit R-4, page 55 of 56)

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CLASSIFICATION:

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R-1 SHOPPING LIST - Item No. 36

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Exhibit R-4a, Schedule Detail
(Exhibit R-4a, page 56 of 56)