

CLASSIFICATION:

UNCLASSIFIED

EXHIBIT R-2, RDT&E Budget Item Justification							DATE:			
							June 2001			
APPROPRIATION/BUDGET ACTIVITY					R-1 ITEM NOMENCLATURE					
RESEARCH, DEVELOPMENT, TEST & EVALUATION, NAVY/BA 5					Mine Development/0604601N					
COST (\$ in Millions)	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Cost
Total PE Cost	3.276	1.635	0.000							
Mine Improvement Q0267	3.276	1.635	0.000							
Quantity of RDT&E Articles	N/A	2 EDMs	N/A	N/A	N/A	N/A	N/A	N/A		
A. Mission Description and Budget Item Justification (U) This project is the only R&D program for mine systems, and is the sole support for the capability to maintain the effectiveness of mines facing new threat targets and increasing emphasis on major regional conflicts and littoral warfare in shallow water. Project tasks are grouped into several areas: (1a) Threat Modeling/Analysis, which collects, analyzes, and develops digital models of data on current priority threat target characteristics to support computer simulations; (1b) Target Detection and Response, which uses target models to develop optimal mine designs, settings, and firing algorithms; (2a) Components/Subsystems, which develops upgrades of mine components to maintain effectiveness against current threat targets using proven state-of-the-art technology including a remote controlled mine capability (RECO); (2b) Advanced Power sources, which develops improved batteries without hazardous heavy metals, and (3) New mines, which designs and develops new mines, including an Improved Submarine-Launched Mobile Mine (ISLMM) . These efforts under (1) and (2) are currently Non-ACAT; the Improved Submarine-Launched Mobile Mine is an ACAT III, International Cooperative R&D program with the RAN. The Mission Need Statement (MNS M044-85-93) for an Improved Submarine-Launched Mobile Mine (ISLMM) was approved on 13 December 1993. The MNS shows a Fleet need to have a covert mining capability and to eliminate reliability problems associated with the existing MK 67 SLMM. The ISLMM will be used to sustain and improve the USN covert mining capability by converting existing MK48 Torpedoes into dual warhead mines. It will feature dual mine sections and utilize the advanced Target Detection Device (TDD) MK71. The ISLMM program was terminated in FY 00 by POM 02.										

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<p>(U) PROGRAM ACCOMPLISHMENTS AND PLANS:</p> <p>1. (U) FY 2000 ACCOMPLISHMENTS:</p> <ul style="list-style-type: none">Product Development- (U) (\$0.908) Primary Hardware - Began design and development of RECO capability and ISLMM EDMs.- (U) (\$1.057) Systems Engineering - Began system engineering and requirements breakdown for ISLMM.Development Support Equipment- (U) (\$0.347) Software Development - Began tactical software development for ISLMM and RECO.- (U) (\$0.200) Integrated Logistics Support - Began ILS tasks for ISLMM related to reliability, maintainability, and sustainability.Test and Evaluation- (U) (\$0.327) Development Test and Evaluation - Began development of ISLMM and RECO test program.Support- (U) (\$0.437) Program Management Support <p>2. (U) FY 2001 PLAN:</p> <ul style="list-style-type: none">Product Development- (U) (\$0.853) Primary Hardware - Complete design and development of one-way RECO capability; fabricate EDMs .Development Support Equipment- (U) (\$0.237) Software Development - Complete tactical software development for RECO.- (U) (\$0.037) Integrated Logistics Support - Complete ILS tasks for RECO related to reliability, maintainability, and sustainability.Test and Evaluation- (U) (\$0.120) Development Test and Evaluation - Complete development of RECO test program.Support- (U) (\$0.379) Program Management Support- (U) (\$0.009) Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 USC 638. <p>3. (U) FY 2002 PLAN: N/A</p>		

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<p>B. Program Change Summary:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">FY 2000</th> <th style="text-align: center;">FY 2001</th> <th style="text-align: center;">FY 2002</th> </tr> </thead> <tbody> <tr> <td>FY 2001 President's Budget:</td> <td style="text-align: center;">3.297</td> <td style="text-align: center;">1.968</td> <td style="text-align: center;">3.019</td> </tr> <tr> <td>Appropriated Value:</td> <td style="text-align: center;">3.315</td> <td style="text-align: center;">1968</td> <td></td> </tr> <tr> <td>Adjustment to FY 2000/2001 Appropriated Value/</td> <td></td> <td></td> <td></td> </tr> <tr> <td>FY 2001 President's Budget:</td> <td style="text-align: center;">(0.039)</td> <td style="text-align: center;">(0.333)</td> <td style="text-align: center;">(3.019)</td> </tr> <tr> <td>FY 2002 PRES Budget Submit:</td> <td style="text-align: center;">3.276</td> <td style="text-align: center;">1.635</td> <td style="text-align: center;">0</td> </tr> </tbody> </table> <p>Funding: FY2000: General reduction of \$-0.039K; FY 2001: Removal of additional RECO funding \$-0.315K and General reduction of \$-0.014K, Gov't rescission \$-0.004K; and FY2002 and FY 2003 decrease is a result of POM 02 SPP decision to terminate ISLMM program due to lack of RAN participation.</p> <p>C. Other Program Funding Summary : (\$ in Millions)</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;"><u>FY 2000</u></th> <th style="text-align: center;"><u>FY 2001</u></th> <th style="text-align: center;"><u>FY 2002</u></th> <th style="text-align: center;"><u>FY 2003</u></th> <th style="text-align: center;"><u>FY 2004</u></th> <th style="text-align: center;"><u>FY 2005</u></th> <th style="text-align: center;"><u>FY 2006</u></th> <th style="text-align: center;"><u>FY 2007</u></th> <th style="text-align: center;"><u>To Complete</u></th> <th style="text-align: center;"><u>Total Cost</u></th> </tr> </thead> <tbody> <tr> <td>ISLMM</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> <td></td> <td></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> <td style="text-align: center;">0.000</td> </tr> <tr> <td>WPN BLI 322100</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Related RDT&E:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Royal Australian Navy</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> <td></td> <td></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> <td style="text-align: center;">0.000</td> </tr> </tbody> </table> <p>D. Acquisition Strategy:</p> <p>The USN and RAN were cooperatively designing ISLMM. The US Navy was contracted with qualified contractors to manufacture the components for the kits to make the EDMs. NUWC Keyport, the USN depot for the MK48, assembled the ISLMMs/EDMs for All up Round (AUR) testing. Using existing hardware to the greatest extent possible, NSWC CSS Panama City FL is teamed with other Navy laboratories and hardware contractors to design and develop the RECO. When ISLMM was added in POM 00, N852 directed that existing funds be used, therefore other Mine Improvement efforts were placed on hold. With the termination of ISLMM, those mine improvement efforts have been resumed in FY 01.</p>									FY 2000	FY 2001	FY 2002	FY 2001 President's Budget:	3.297	1.968	3.019	Appropriated Value:	3.315	1968		Adjustment to FY 2000/2001 Appropriated Value/				FY 2001 President's Budget:	(0.039)	(0.333)	(3.019)	FY 2002 PRES Budget Submit:	3.276	1.635	0		<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>To Complete</u>	<u>Total Cost</u>	ISLMM	0.000	0.000	0.000				0.000	0.000	0.000	0.000	WPN BLI 322100											Related RDT&E:											Royal Australian Navy	0.000	0.000	0.000				0.000	0.000	0.000	0.000
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RESEARCH, DEVELOPMENT, TEST & EVALUATION, NAVY/BA 5

R-1 ITEM NOMENCLATURE

Mine Development/0604601N

E. Schedule Profile

RECO PROGRAM SCHEDULE

	FY 2000				FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				FY 2006				FY 2007			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Events																																
Design/Development																																
Build EDMs																																
Engineering Testing																																

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Exhibit R-3 Cost Analysis (page 1)								DATE: June 2001				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT NAME AND NUMBER			PROJECT NAME AND NUMBER						
RDT&E, N/BA-5			MINE DEVELOPMENT/0604601N			MINE DEVELOPMENT/Q0267						
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development	RCP	NSWC, CSS-Panama City FL	105.585	0.908	11/99	0.853	11/00	0.000		0.000	107.346	
Ancillary Hardware Development			2.158								2.158	
Systems Engineering	WR	NSWC, CSS-Panama City FL		1.057	12/99			0.000		0.000	1.057	
Licenses											0.000	
Tooling											0.000	
GFE											0.000	
Award Fees			4.790							0.000	4.790	
Subtotal Product Development			112.533	1.965		0.853		0.000		0.000	115.351	
Remarks:												
Development Support Equipment												
Software Development	WR	NSWC, CSS-Panama City, FL	2.307	0.347	12/99	0.237	12/00				2.891	N/A
Training Development											0.000	
Integrated Logistics Support	WR	NSWC, CSS-Panama City, FL		0.200	12/99	0.037	12/00				0.237	N/A
Configuration Management											0.000	
Technical Data											0.000	
GFE											0.000	
Subtotal Support			2.307	0.547		0.274		0.000		0.000	3.128	N/A
Remarks:												

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Exhibit R-3, Project Cost Analysis
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Exhibit R-3 Cost Analysis (page 2)								DATE: June 2001					
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NAME AND NUMBER							
RDT&E, N/BA-5			MINE DEVELOPMENT/0604601N			MINE DEVELOPMENT/Q0267							
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract	
Developmental Test & Evaluation	WR	NSWC, CSS-Panama City, FL	15.386	0.327	12/99	0.120	12/00	0.000		0.000	15.833	N/A	
Operational Test & Evaluation													
Tooling													
GFE													
Subtotal T&E			15.386	0.327		0.120		0.000		0.000	15.833	N/A	
Remarks:													
Contractor Engineering Support													
Government Engineering Support			35.599								35.599		
Program Management Support	Var.	Various	0.015	0.437	12/99	0.388	12/00				0.840	N/A	
Travel													
Labor (Research Personnel)													
Overhead													
Subtotal Management			35.614	0.437		0.388		0.000			36.439	N/A	
Remarks:													
Total Cost			165.840	3.276		1.635		0.000		0.000	170.751		
Remarks:													

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