

# UNCLASSIFIED

## CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification								DATE:			
								February 2004			
APPROPRIATION/BUDGET ACTIVITY						R-1 ITEM NOMENCLATURE					
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-5						0604601N, Mine Development					
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 0267 Mine Development	170.698		1.455	1.480	6.123	15.455	15.675	15.940	5.470	Continuing	Continuing
RDT&E Articles Qty	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0

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

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;
- (2) Developing and upgrading Tactical Decision Aids (TDAs) to assist the warfighter in planning and placing more effective minefields;
- (3) Designing and developing the 2010 Mine, which is a replacement for Underwater Mine MK 56. Mine MK 56 is designated to be removed from service by the year 2010. The 2010 Mine design will include provisions for future capability upgrades. Future upgrades might include: (a) 2-way remote command & control of the minefield, (b) precision standoff delivery from aircraft, (c) an enlarged target detection and damage radius, and (d) advanced power systems for the mine.

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Exhibit R-2a, RDTE Project Justification  
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APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-5</b>	PROGRAM ELEMENT NUMBER AND NAME 0604601N, Mine Development	PROJECT NUMBER AND NAME 0267, Mine Development		
<b>(U) B. Accomplishments/Planned Program</b>				
		FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost		0.423	0.455	4.733
RDT&E Articles Quantity				
<b><u>Product Development:</u></b>  FY 2003 PLANS - (\$0.423) System Engineering: Conduct Analysis of Alternatives for 2010 Mine Development.  FY 2004 PLANS - (\$0.455) System Engineering: Draft requirements for 2010 Mine.  FY 2005 PLANS - (\$4.210) Hardware Development: Initiate 2010 Mine design and development. - (\$0.523) System Engineering: Initiate development of Concept of Operations and conduct other tactical analysis modeling and simulation in support of 2010 Mine development.				

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Exhibit R-2a, RDTEN Project Justification  
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RDT&E Articles Quantity																			
<div style="border: 1px solid black; padding: 10px;"><b><u>Development Support:</u></b>  FY 2003 PLANS - (\$0.807) Software Development: Develop target detection algorithms for diesel-electric mini-sub and MCM ships. Continue development of PC-based, MEDAL-compliant TDA for minefield - (\$0.050) Integrated Logistic Support (ILS)  FY 2004 PLANS - (\$0.827) Software Development: Continue development of target detection algorithms and PC-based, MEDAL-compliant TDA for minefield planning. - (\$0.050) Integrated Logistic Support (ILS)  FY 2005 PLANS - (\$1.158) Software Development: Continue development of target detection algorithms and PC-based, MEDAL-compliant TDA for minefield planning. - (\$0.150) Integrated Logistic Support (ILS)</div>																			

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<b>(U) C. PROGRAM CHANGE SUMMARY:</b>				
(U) Funding:		FY 2003	FY 2004	FY 2005
FY04 President's Controls:		1.458	1.497	6.247
FY05 President's Controls:		1.455	1.480	6.123
Total Adjustments		-0.003	-0.017	-0.124
Summary of Adjustments				
Misc. adjustments		-0.003	-0.017	0.124
Subtotal				
		-0.003	-0.017	0.124
(U) Schedule:				
Not Applicable				
(U) Technical:				
Not Applicable				

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**(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 323100, WPN									
QS Mod 3	1.976	3.186	2.981	3.015	3.066	3.114	3.387	Continuing	Continuing
2010 Mine Replacement	0	0	0	0	0	0	10.538	Continuing	Continuing
Total	1.976	3.186	2.981	3.015	3.066	3.114	13.925	Continuing	Continuing

**(U) E. ACQUISITION STRATEGY:**

NSWC CSS Panama City FL is teamed with other Navy activities and various contractors to design and develop the 2010 Mine as a replacement for the Mine MK56. Procurement is scheduled to start in FY09

**(U) F. MAJOR PERFORMERS:**

- NSWC, CSS, Panama City, FLA: Design and develop the 2010 Mine as a replacement for the Mine MK56.

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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-5			0604601N, Mine Development			0267, Mine Development						
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	RCP	NWSC, CSS	106.622					4.210	12/04	Cont.	Cont.	N/A
Ancillary Hardware Development			2.158								2.158	N/A
Ship Suitability	WR	NWSC, CSS	1.057	0.423	12/02	0.455	12/03	0.523	12/04	Cont.	Cont.	N/A
GFE			4.790								4.790	N/A
											0.000	
											0.000	
											0.000	
											0.000	
											0.000	
											0.000	
Subtotal Product Development			114.627	0.423		0.455		4.733		Cont.	120.238	
Remarks:												
Software Development	WR	Various	3.837	0.807	12/02	0.827	12/03	1.158	12/04	Cont.	Cont.	N/A
Integrated Logistics Support	WR	NWSC, CSS	0.220	0.050	12/02	0.050	12/03	0.150	12/04	Cont.	Cont.	N/A
											0.000	
											0.000	
											0.000	
											0.000	
											0.000	
Subtotal Support			4.057	0.857		0.877		1.308		0.000	7.099	
Remarks:												

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Exhibit R-3 Cost Analysis (page 2)										DATE: <b>February 2004</b>		
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<b>RDTE, N / BA-5</b>			0604601N, Mine Development			0267, Mine Development						
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	NWSC, CSS	15.833							Cont.	Cont.	N/A
Operational Test & Evaluation	WR	NWSC, CSS, COMOPTEVFOR								Cont.	Cont.	N/A
											0.000	
											0.000	
											0.000	
											0.000	
											0.000	
Subtotal T&E			15.833	0.000		0.000		0.000		0.000	15.833	
Remarks:												
Government Engineering Support			35.599								35.599	N/A
Program Management Support	Various	Various	0.582	0.170	12/02	0.143	12/03	0.072	12/04	Cont.	Cont.	N/A
Travel	PD	NAVSEA		0.005	12/02	0.005	12/03	0.010	12/04	Cont.	Cont.	N/A
											0.000	
											0.000	
Subtotal Management			36.181	0.175		0.148		0.082		0.000	36.586	
Remarks:												
Total Cost			170.698	1.455		1.480		6.123		Cont.	179.756	
Remarks:												

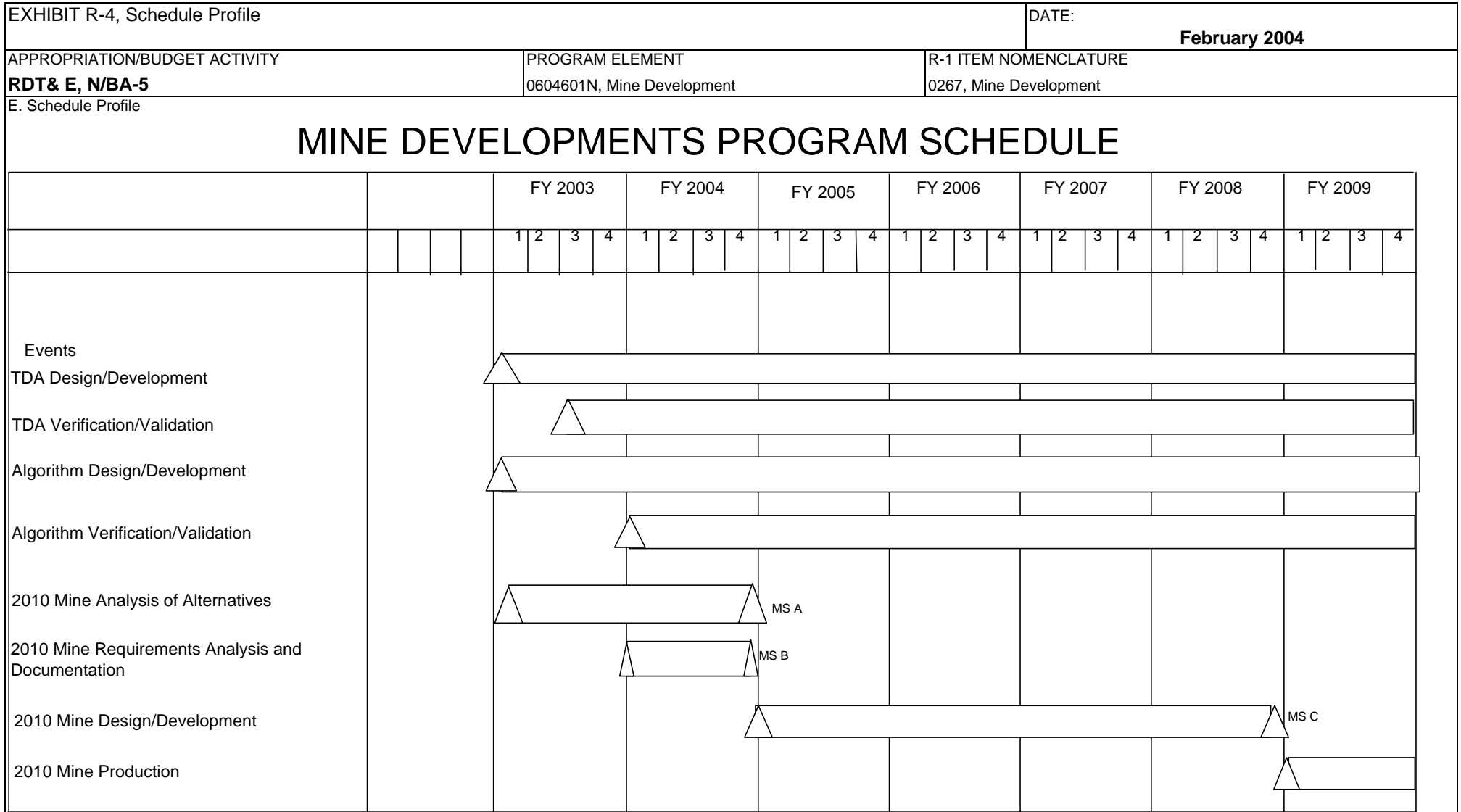
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Exhibit R-3, Project Cost Analysis  
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**Exhibit R-3, Project Cost Analysis**  
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