

CLASSIFICATION:

UNCLASSIFIED

EXHIBIT R-2, RDT&E Budget Item Justification								DATE: June 2001		
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY/BA-4					R-1 ITEM NOMENCLATURE Joint Service EOD Development/0603654N					
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	10.821	14.546	12.918						Cont.	Cont.
Joint Service EOD Systems/Q0377	5.848	7.533	6.069						Cont.	Cont.
EOD Diving System/Q1317	4.973	7.013	6.849						Cont.	Cont.
Quantity of RDT&E Articles	Various	Various	Various	Various	Various	Various	Various	Various		

A. Mission Description and Budget Item Justification: This is a Joint Service Program. This program provides for the development of Explosive Ordnance Disposal tools and equipment for use by all military services. The responsibility is assigned to the Navy as single service manager, by Department of Defense Directive 5160.62 of 26 April 1989, for management of the Joint Service Explosive Ordnance Disposal Research and Development Program. Proliferation of sophisticated types of foreign and domestic ordnance necessitate a continuing development program to provide Explosive Ordnance Disposal personnel of all military services with the special equipment and tools required to support this mission. This program also provides life support related equipment necessary to support the performance of Navy Explosive Ordnance Disposal tasks underwater. This equipment must have inherently low acoustic and magnetic signatures in order to allow the Explosive Ordnance Disposal technician to safely approach, render-safe and dispose of sea mines and other underwater ordnance.

	FY 2000	FY 2001	FY 2002
FY 2001 President's Budget:	11.107	13.131	12.876
Appropriated Value:	11.168	14.681	
Adjustment to FY 2000/2001 Appropriated Value/ FY2001 Presidents Budget:			
a. SBIR Adjustment	-0.227		
b. General Adjustments	-0.120	-0.135	0.042
FY 2002 PRES Budget Submit:	10.821	14.546	12.918

Funding: FY 00 and FY 01 decreases are due to general adjustments. FY 02 increase is due to minor pricing adjustments.

Schedule: Not applicable for Q0377 or Q1317.

Technical: Not applicable.

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EXHIBIT R-2a, RDT&E Project Justification							DATE: June 2001			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N/BA-4		PROGRAM ELEMENT NAME AND NUMBER JT Service EOD Development/0603654N			PROJECT NAME AND NUMBER JT Service EOD Systems/Q0377					
COST (\$ in Millions)	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Cost
Project Cost	5.848	7.533	6.069							
RDT&E Articles Qty	Various	Various	Various							

A. Mission Description and Budget Item Justification: Provides Explosive Ordnance personnel of all military services with the specialized equipment and tools required to support their mission of detection/location, identification, render-safe, recovery, field and laboratory evaluation, and disposal of unexploded ordnance (UXO) that is a threat to military operations, installations, personnel, or material. UXO includes foreign and domestic, both conventional and non-conventional, including improvised explosive devices (IEDs).

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. FY2000 ACCOMPLISHMENTS:

- (\$.900) Obtained Milestone III decision for Lightweight Disposable Disrupter (LIDD) project.
- (\$3.240) Continued development of the Classified Project II, Small Caliber Dearmer (SCD) and Standoff Disrupter (SD) projects.
- (\$1.308) Initiated the Large Improvised Explosive Device (IED) Access and Disruption project.
- (\$.400) Conducted Analysis of Alternative studies for the Explosive Safe/Arm (ESA) Monitor and EOD Incident Site C4 (ISC4) System projects.

2. FY2001 PLAN:

- (\$1.900) Obtain approval for full rate production for Small Caliber Dearmer project and the Standoff Disrupter UXO and Standoff Disrupter IED projects.
- (\$3.425) Continue development of Large IED Access and Disruption, Classified Project II and initiate the EOD ISC4 System project.
- (\$.500) Conduct Analysis of Alternatives studies in the areas of submunitions clearance and hand held ordnance locator (Advanced Ordnance Locator).
- (\$1.550) Develop and test improvements to the Remote Ordnance Neutralization System (RONS).
- (\$.158) Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 USC 638.

3. FY 2002 PLAN:

- (\$3.200) Continue Classified Project II, Large IED Access & Disruption and EOD ISC4 projects.
- (\$2.369) Initiate Advanced Ordnance Locator (AOL), Non-invasive Filler Identification (NFI), and EOD Man Portable Robotic System (MPRS) projects.
- (\$.500) Conduct Analysis of Alternative studies in the area of submunitions clearance. Conduct evaluations of Commercial/Non-Developmental Item (C/NDI) EOD tools & equipment.

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RDTE&E, N/BA-4		JT Service EOD Development 0603654N			JT Service EOD Systems/Q0377																																						
<p>B. Other Program Funding 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> <th style="text-align: center;">FY 2003</th> <th style="text-align: center;">FY 2004</th> <th style="text-align: center;">FY 2005</th> <th style="text-align: center;">FY 2006</th> <th style="text-align: center;">FY 2007</th> <th style="text-align: center;">To Complete</th> <th style="text-align: center;">Total Cost</th> </tr> </thead> <tbody> <tr> <td>OPN 5509</td> <td style="text-align: center;">1.568</td> <td style="text-align: center;">0.614</td> <td style="text-align: center;">1.458</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">CONT.</td> <td style="text-align: center;">CONT.</td> </tr> <tr> <td>PANMC 0340</td> <td style="text-align: center;">0.234</td> <td style="text-align: center;">0.563</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">0.000</td> <td style="text-align: center;">0.797</td> </tr> </tbody> </table> <p>C. Acquisition Strategy: Analysis of Alternatives (AOA) studies are always conducted prior to the initiation of new subprojects. The AOA addresses and emphasizes acquisition strategies of the most cost-effective solution over the subprojects' life-cycle. The acquisition strategies observe the following hierarchy of alternatives: commercial item (including modification), non-developmental item (including modification), and lastly, developmental programs. Contracting for RDT&E, if required, is always competitive and when feasible, production options are included.</p> <p>D. Schedule Profile: See Attached.</p>												FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Cost	OPN 5509	1.568	0.614	1.458						CONT.	CONT.	PANMC 0340	0.234	0.563							0.000	0.797
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Exhibit R-2a, RDT&E Project Justification
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0603654N Joint Service EOD Development; Q0377 Joint Service EOD Systems																										
RDT&E Milestone Chart																										
FY 2000FY 2001FY 2002FY 2003FY 2004FY 2005FY 2006FY 2007																										
12341234123412341234123412341234																										
LIDD																										
Testing (DT-IIB/OT-II)																										
Testing (OPEVAL)																										
Milestone III																										
Production Contract Award																										
Production/Deliveries																										
CLASSIFIED PROJECT II																										
Milestone 0																										
Testing																										
Milestone I/II																										
EDM Fabrication																										
Testing (DT-II)																										
Milestone III																										
Production/Deliveries																										

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RDT&E Milestone Chart																																
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	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				
SMALL CAL DEARMER (SCD)																																
Testing (Preliminary)																																
Testing (Final)																																
Production Decision																																
Production / Deliveries																																
STANDOFF DISRUPTER (SD)																																
Testing (DT-I)																																
RDT&E Contracts Award																																
UXO SD Testing																																
UXO SD Production Decision																																
UXO SD Production Option Award/Production																																
IED SD Testing																																
IED SD Production Decision																																
IED SD Prod. Option Award/Production																																

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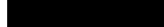




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ADVANCED ORDNANCE LOCATOR																															
Anaylsis of Alternatives (AOA) Study																															
Program Initiation																															
Testing (Preliminary)																															
Intermin Program Review (IPR)																															
Testing DT-II																															
Production Decision																															
Production/Deliveries																															
NON-INVASIVE FILLER ID																															
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Testing (Final)																															
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EOD MAN PORTABLE ROBOTIC SYSTEM																																
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Exhibit R-3 Cost Analysis (page 1)								DATE: June 2001				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NAME AND NUMBER						
RDT&E, N/BA-4			0603654N			Joint Service EOD Systems/Q0377						
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	WR	EODTD, IH, MD	71.567	2.484	10/99	3.338	10/00	2.102	10/01	Continuing	Continuing	N/A
Software Development	WR	EODTD, IH, MD	3.304			0.075	10/00			Continuing	Continuing	N/A
ILS	WR	EODTD, IH, MD	33.360	0.910	10/99	0.850	10/00	0.900	10/01	Continuing	Continuing	N/A
											0.000	
											0.000	
											0.000	
											0.000	
Subtotal Product Development			108.231	3.394		4.263		3.002		Continuing	Continuing	N/A
Remarks:												
Program Management Support	C/CPFF	Dynamic Systems, Alex, VA	2.340	0.340	01/00	0.250	01/01	0.260	01/02	Continuing	Continuing	N/A
											0.000	
											0.000	
											0.000	
											0.000	
											0.000	
Subtotal Support			2.340	0.340		0.250		0.260		0.000	3.190	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 RDT&E, N/BA-4			PROGRAM ELEMENT 0603654N			PROJECT NAME AND NUMBER Joint Service EOD Systems/Q0377						
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	EODTD, IH, MD	50.108	1.050	10/99	1.895	10/00	1.650	10/01	Continuing	Continuing	N/A
Operational Test & Evaluation	WR	EODTD, IH, MD	8.135	0.110	10/99					Continuing	Continuing	N/A
											0.000	
											0.000	
Subtotal T&E			58.243	1.160		1.895		1.650		Continuing	Continuing	N/A
Remarks:												
Program Management Personnel	WR	EODTD, IH, MD	3.220	0.225	10/99	0.225	10/00	0.250	10/01	Continuing	Continuing	N/A
Miscellaneous	Various	Various	1.566	0.729	02/00	0.900	02/01	0.907	02/02	Continuing	Continuing	N/A
											0.000	
											0.000	
											0.000	
Subtotal Management			4.786	0.954		1.125		1.157		Continuing	Continuing	N/A
Remarks:												
Total Cost			173.600	5.848		7.533		6.069		Continuing	Continuing	N/A
Remarks:												

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Exhibit R-3, Project Cost Analysis
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APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NAME AND NUMBER				PROJECT NAME AND NUMBER					
RDT&E, N/BA-4		JT Service EOD Development/0603654N				EOD Diving Systems/Q1317					
COST (\$ in Millions)		FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Cost
Project Cost		4.973	7.013	6.849						Cont.	Cont.
RDT&E Articles Qty		Various	Various	Various	Various	Various	Various	Various	Various		
<p>A. Mission Description and Budget Item Justification: Provides for development of diving equipment and explosive charges to support Explosive Ordnance Disposal (EOD) underwater operations. The equipment must have inherently low acoustic and magnetic signatures in order to allow the EOD technician to safely approach, render-safe, and dispose of sea mines and other underwater ordnance. Provides support for the Navy's high priority mission of Very Shallow Water (VSW) mine countermeasures, including clandestine reconnaissance, in support of amphibious operations. This also includes the development of small, affordable MCM Unmanned Underwater Vehicles.</p> <p>(U) PROGRAM ACCOMPLISHMENTS AND PLANS:</p> <p>1. FY2000 ACCOMPLISHMENTS:</p> <p>(\$.370) Continued developing equipment which improves diver capability and endurance.</p> <p>(\$.853) Continued developing a non-magnetic Acoustic Firing System.</p> <p>(\$.879) Continued developing non-magnetic Underwater Imaging System to detect objects in the water column.</p> <p>(\$.434) Initiated the development of diving tables for the MK 16 MOD 0 Underwater Breathing Apparatus.</p> <p>(\$2.437) Continued to develop, test and gain approval for fleet use of specialized equipment to support the Very Shallow Water Mine Countermeasures mission and CNO approved VSW MCM Detachment (USN/USMC).</p> <p>2. FY2001 PLAN:</p> <p>(\$.181) Test & gain approval for Navy use (ANU) of EOD diving, Commercial/Non-Developmental Items (C/NDI).</p> <p>(\$.885) Continue developing a non-magnetic Acoustic Firing System.</p> <p>(\$.709) Obtain production decision for Underwater Imaging System.</p> <p>(\$.564) Complete the development of diving tables for the MK 16 MOD 0 Underwater Breathing Apparatus.</p> <p>(\$.083) Conduct Analysis Of Alternatives for equipment to enhance the divers ability to detect, neutralize and gather intelligence on underwater limpet and special attach mines.</p> <p>(\$4.435) Continue to develop, test and gain approval for fleet use of specialized equipment to support the Very Shallow Water Mine Countermeasures mission and CNO approved VSW MCM Detachment (USN/USMC). This also includes the development of small, affordable MCM Unmanned Underwater Vehicles Systems & UUV Modules for VSW MCM & EOD Detachments.</p>											

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<p>(\$.156) Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 USC 638.</p> <p>3. FY2002 PLAN:</p> <p>(\$.212) Continue to test & gain approval for Navy use (ANU) of EOD diving, Commercial/Non-Developmental Items (C/NDI).</p> <p>(\$.400) Obtain Milestone III decision for the Acoustic Firing System.</p> <p>(\$.600) Initiate development of Advanced Underwater Limpet Mine equipment to enhance EOD units' ability to detect neutralize and gather intelligence on underwater limpet and special attach mines.</p> <p>(\$.150) Initiate development of Advanced Underwater Breathing Apparatus.</p> <p>(\$.600) Initiate development of low magnetic Mirco Diver Display that provides sonar input from the Underwater Imaging Systems when in dark turbid, low visibility water environments.</p> <p>(\$.250) Initiate the test and evaluation and gain approval for production for a commercial off-the shelf Emergency Evacuation Diver System to assist the forward deployed EOD ARG/CV battle group for transportation of diving casualties.</p> <p>(\$.450) Initiate the development and test of a product improvement Advanced Miniature Mine PIP Sensor to the Underwater Imaging System to allow the system to conduct stand-off identification and computer aided detection and classification.</p> <p>(\$.169) Continue to develop, test and gain approval for fleet use of specialized equipment to support the Very Shallow Water Mine Countermeasures mission and CNO approved VSW MCM Detachment (USN/USMC). This also includes the development of small, affordable MCM Unmanned Underwater Vehicles.</p>		

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RDT&E Milestone Chart																															
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EXHIBIT R-2a, RDT&E Project Justification																			DATE:							
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RDT&E Milestone Chart																										

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Exhibit R-3 Cost Analysis (page 1)								DATE: June 2001				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NAME AND NUMBER						
RDT&E, N/BA-4			0603654N			EOD Diving Systems/Q1317						
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	WR	SPAWAR, SD, CA	2.630	1.000	10/99	0.770	10/00	0.200	10/01	Continuing	Continuing	N/A
Primary Hardware Development	WR	Various	15.573	0.857	10/99	2.661	10/00	3.076	10/01	Continuing	Continuing	N/A
Software Development	WR	Various	0.733	0.158	10/99	0.200	10/00	0.200	10/01	Continuing	Continuing	N/A
Systems Engineering	WR	Various	6.400	0.330	10/99	0.300	10/00	0.325	10/01	Continuing	Continuing	N/A
ILS	WR	Various	10.692	0.200	10/99	0.200	10/00	0.225	10/01	Continuing	Continuing	N/A
											0.000	
											0.000	
Subtotal Product Development			36.028	2.545		4.131		4.026		Continuing	Continuing	N/A
Remarks:												
Program Management Support	C/CPFF	Dynamic System, Alex, VA	1.846	0.440	01/00	0.450	01/01	0.450	01/02	Continuing	Continuing	N/A
											0.000	N/A
											0.000	
											0.000	
											0.000	
											0.000	
Subtotal Support			1.846	0.440		0.450		0.450		0.000	Continuing	N/A
Remarks:												

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Exhibit R-3 Cost Analysis (page 2)								DATE: June 2001				
APPROPRIATION/BUDGET ACTIVITY RDT&E, N/BA-4			PROGRAM ELEMENT 0603654N			PROJECT NAME AND NUMBER EOD Diving Systems/Q1317						
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	Various	1.920	0.400	10/99	0.400	10/00	0.400		Continuing	Continuing	N/A
Operational Test & Evaluation	WR	Various	0.600	0.320	10/99	0.340	10/00	0.300		Continuing	Continuing	N/A
											0.000	
											0.000	
Subtotal T&E			2.520	0.720		0.740		0.700		0.000	Continuing	N/A
Remarks:												
Program Management Personnel	WR	EODTD, IH, MD	3.467	0.650	10/99	0.650	10/00	0.650		Continuing	Continuing	N/A
Miscellaneous	Various	Various	1.070	0.618	02/00	1.042	02/01	1.023		Continuing	Continuing	N/A
											0.000	
											0.000	
											0.000	
Subtotal Management			4.537	1.268		1.692		1.673		Continuing	Continuing	N/A
Remarks:												
Total Cost			44.931	4.973		7.013		6.849		Continuing	Continuing	N/A
Remarks:												

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