

CLASSIFICATION:

UNCLASSIFIED

EXHIBIT R-2, RDT&E BUDGET ITEM JUSTIFICATION

DATE
May 2009

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

RD TEN/BA 5

0604373N/AIRBORNE MCM

COST (In Millions)	FY 2008	FY 2009	FY 2010				
Total PE Cost	55.422	41.740	48.712				
0529 / ABN MINE HUNT SYSTEM	4.990	2.486	4.759				
2047 / ALMDS	12.414	6.438	11.106				
2427 / OASIS	7.576	7.035	9.832				
2473 / Airborne Mine Neutralization System	23.895	20.344	20.110				
4026 / Strat Into Medal, Tactics & Trng Organic Force	3.680	2.776	1.946				
9179 / Surf Navy Integ Undersea Tactical Tech	0.550	0.666	0.959				
9999 / CONGRESSIONAL ADDS	2.317	1.995	0.000				

A. MISSION DESCRIPTION:

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The Airborne Mine Countermeasures (AMCM) programs will deploy to the fleet as sensors integrated into the MH-53E and MH-60S platforms in order to provide Mine-Like Object Detection/classification/localization, Mine Identification, mine reacquisition and neutralization, and influence clearance capabilities. The "Next Generation" AMCM systems will provide this set of capabilities to the Littoral Combat Ship (LCS) Mine Warfare Mission Module. This capability will be of critical importance in littoral zones, confined straits, choke points, and the Amphibious Objective Area (AOA). Some interest in the following areas has been expressed: search and rescue; surface fire support; ASW operations; protection/offense against small craft/vehicles; air to air operations; very shallow water MCM; swimmer defense and torpedo defense. Surface Navy Integrated Undersea Tactical Technology (SNIUTT) will be used to develop an AN/SQQ-32, AN/AQS-14, AN/AQS-24 and AN/AQS-20A sensor training module for a LAN-based Surface Network Embedded Analysis and Tactical Trainer (SNEATT).

B. PROGRAM CHANGE SUMMARY:

Funding:	FY 2008	FY 2009	FY 2010
FY09 President's Budget	55.979	39.882	33.264
FY10 President's Budget	55.422	41.740	48.712
Total Adjustments	-0.557	1.858	15.448
(U) Summary of Adjustments			
Congressional Rescissions			
Congressional Adjustments		-0.113	
SBIR/STTR/FTT Assessment	-0.557		
Program Adjustments		2.000	16.120
Rate/Misc Adjustments		-0.029	-0.672
Total	-0.557	1.858	15.448

CLASSIFICATION:		UNCLASSIFIED					
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION					DATE May 2009		
APPROPRIATION/BUDGET ACTIVITY RDTEN/BA 5		PROGRAM ELEMENT NUMBER AND NAME 0604373N/AIRBORNE MCM			PROJECT NUMBER AND NAME 0529/ABN MINE HUNT SYSTEM		
COST (In Millions)	FY 2008	FY 2009	FY 2010				
Project Cost	4.990	2.486	4.759				
RDT&E Articles Qty	0	0	0				
A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:							
<p>This project includes a sonar for mine detection, classification and identification. The Navy does not possess a capability to conduct minefield reconnaissance (mine density and location) at high area search rates. The AN/AQS-20A is being developed to address the emergent requirements for mine identification and to integrate AMCM systems with a MH-60S platform. The AN/AQS-20A will also be the mine hunting sonar component for the Remote Mine hunting System (RMS). The AN/AQS-20A will be developed to meet the requirements of the Littoral Combat Ship (LCS) Mine Warfare Mission Module.</p>							

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APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 5		PROGRAM ELEMENT NUMBER AND NAME 0604373N/AIRBORNE MCM		PROJECT NUMBER AND NAME 0529/ABN MINE HUNT SYSTEM
B. ACCOMPLISHMENTS/PLANNED PROGRAM:				
		FY 2008	FY 2009	FY 2010
Accomplishments/Effort/Subtotal Cost		3.659	0.764	3.520
RDT&E Articles Quantity		0	0	0
FY08:				
<ul style="list-style-type: none"> - CAD/CAC software upgrades - Sensor Fusion software upgrades - Continue Real Time CADCAC development - Continue Environmental Data Extraction Analysis 				
FY09:				
<ul style="list-style-type: none"> - Cable design improvement - Ferrule Hydrodynamic design - Search Sensor upgrade 				
FY10:				
<ul style="list-style-type: none"> - Perform Through the Sensor analysis - Automated Target Recognition Development - Search Sensor upgrade 				
		FY 2008	FY 2009	FY 2010
Accomplishments/Effort/Subtotal Cost		0.574	0.575	0.387
RDT&E Articles Quantity		0	0	0
FY08:				
<ul style="list-style-type: none"> - Continue performance analysis identifying design efforts required to resolve interface problems - Tactics, Mission Planning, and PMA during MH-60S OT phase - Complete Interface/integration with MH-60S, C4I Interface and MEDAL - Development of ILS and supportability products and training materials 				
FY09:				
<ul style="list-style-type: none"> - Continue performance analysis identifying design efforts required to resolve interface problems - Tactics, Mission Planning and PMA during MH-60S OT phase 				

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EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)				DATE May 2009
APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 5		PROGRAM ELEMENT NUMBER AND NAME 0604373N/AIRBORNE MCM		PROJECT NUMBER AND NAME 0529/ABN MINE HUNT SYSTEM
<ul style="list-style-type: none"> - Complete Interface/integration with MH-60S, C4I Interface and MEDAL - Begin to develop ILS and supportability product and training materials for P3I improvements 				
FY10:				
<ul style="list-style-type: none"> - Continue to develop ILS and supportability product and training materials for P3I improvements 				
		FY 2008	FY 2009	FY 2010
Accomplishments/Effort/Subtotal Cost		0.466	1.000	0.550
RDT&E Articles Quantity		0	0	0
FY08:				
<ul style="list-style-type: none"> - Began MH-60S OT - Conduct testing on P3I improvements 				
FY09:				
<ul style="list-style-type: none"> - Conduct testing on P3I improvements 				
FY10:				
<ul style="list-style-type: none"> - Conduct testing on P3I improvements 				
		FY 2008	FY 2009	FY 2010
Accomplishments/Effort/Subtotal Cost		0.291	0.147	0.302
RDT&E Articles Quantity		0	0	0
FY08:				
<ul style="list-style-type: none"> - Provide planning and management during for the AN/AQS-20A program - Complete documentation development in support of FRPDR in FY09 - Travel 				
FY09:				
<ul style="list-style-type: none"> - Provide planning and management during for the AN/AQS-20A program - Complete documentation development in support of FRPDR in FY09 - Travel 				

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EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)							DATE May 2009		
APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 5	PROGRAM ELEMENT NUMBER AND NAME 0604373N/AIRBORNE MCM			PROJECT NUMBER AND NAME 0529/ABN MINE HUNT SYSTEM					
FY10: - Provide planning and management during for the AN/AQS-20A program - Travel									
C. OTHER PROGRAM FUNDING SUMMARY:									
To Total									
Line Item No. and Name	FY 2008	FY 2009	FY 2010						Total Cost
OPN 4248 AQS-20A	14.320	0.000	14.520						28.840
OPN 1600 LCS Mission Modules	0.000	73.684	137.259						210.943
D. ACQUISITION STRATEGY:									
AN/AQS-20A achieved Milestone C on 10 May 2005.									
Sole Source to Raytheon of MH-60S systems LRIP procurement began in FY05, FY06 and FY07.									
E. MAJOR PERFORMERS:									
Major performers and various contractors, NSWC Panama City, and NAVSEA.									

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EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS										DATE May 2009		
APPROPRIATION/BUDGET ACTIVITY RDTEN/BA 5		PROGRAM ELEMENT NUMBER AND NAME 0604373N/AIRBORNE MCM					PROJECT NUMBER AND NAME 0529/ABN MINE HUNT SYSTEM					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost (\$000)			FY 2009 Cost (\$000)	FY 2009 Award Date	FY 2010 Cost (\$000)	FY 2010 Award Date		Total Cost (\$000)	Target Value of Contract
Hardware/Software Development	SS/CPIF	Raytheon, Portsmouth, RI	31.120			0.000		0.000			31.120	0.000
Hardware/Software Development	C/CPFF	Raytheon, Portsmouth, RI	60.150			0.000		0.000			60.150	0.000
Hardware/Software Development	WX	NSWC, PC	13.002			0.764	OCT-08	3.520	NOV-09		CONT	0.000
Hardware/Software Development	C/FP	Northrop, Gummman	4.572			0.000		0.000			4.572	0.000
			0.000			0.000		0.000			0.000	0.000
Subtotal Product Development			108.844			0.764		3.520			CONT	0.000
Remarks:												
Engineering Services	WX	NSWC, PC	30.192			1.000	NOV-08	0.337	NOV-09		CONT	0.000
Engineering Services	C/CPFF	Raytheon, Portsmouth, RI	3.686			0.000		0.000			3.686	0.000
Engineering Services	VAR	Various	54.018			0.000		0.000			54.018	0.000
Engineering Services	SS/CPIF	Raytheon, Portsmouth, RI	3.464			0.000		0.000			3.464	0.000
ILS Function	WX	NSWC, PC	6.312			0.025	NOV-08	0.050	NOV-09		CONT	0.000
ILS Function	SS/CPIF	Raytheon, Portsmouth, RI	1.546			0.000		0.000			1.546	0.000
ILS Function	VAR	Various	0.981			0.000		0.000			0.981	0.000
Subtotal Support Costs			100.199			1.025		0.387			CONT	0.000
Remarks:												
T&E Functions	WX	NSWC, PC	11.734			0.000		0.550	DEC-09		12.284	0.000
T&E Functions	SS/CPIF	Raytheon, Portsmouth, RI	4.134			0.550	FEB-09	0.000			4.684	0.000
T&E Functions	VAR	Various	1.583			0.000		0.000			1.583	0.000
Subtotal Test and Evaluation			17.451			0.550		0.550			18.551	0.000
Remarks:												
Management Services			4.393			0.122	JAN-09	0.277	JAN-10		CONT	0.000
Travel			0.529			0.025	OCT-08	0.025	OCT-09		0.579	0.000
Subtotal Management Services			4.922			0.147		0.302			CONT	0.000
Remarks:												

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EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS										DATE May 2009		
APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 5		PROGRAM ELEMENT NUMBER AND NAME 0604373N/AIRBORNE MCM					PROJECT NUMBER AND NAME 0529/ABN MINE HUNT SYSTEM					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost (\$000)			FY 2009 Cost (\$000)	FY 2009 Award Date	FY 2010 Cost (\$000)	FY 2010 Award Date		Total Cost (\$000)	Target Value of Contract
Total Cost			231.416			2.486		4.759			CONT	0.000

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EXHIBIT R-4, SCHEDULE PROFILE

DATE
May 2009

APPROPRIATION/BUDGET ACTIVITY
RDTEN/BA 5

PROGRAM ELEMENT NUMBER AND NAME
0604373N/AIRBORNE MCM

PROJECT NUMBER AND NAME
0529/ABN MINE HUNT SYSTEM

Fiscal Year	2008				2009				2010															
	1	2	3	4	1	2	3	4	1	2	3	4												
Acquisition Milestones																								
Test & Evaluation Milestones																								
DT-II I (MH-60S TECHEVAL)																								
OT-IIB (MH-60S OPEVAL)																								
P3I Development Phase																								
Production Milestones																								
LRIPs (FY 05, FY06 & FY07)																								
LRIPs Deliveries																								

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EXHIBIT R-4a, SCHEDULE DETAIL						DATE May 2009	
APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 5		PROGRAM ELEMENT NUMBER AND NAME 0604373N/AIRBORNE MCM			PROJECT NUMBER AND NAME 0529/ABN MINE HUNT SYSTEM		
Schedule Profile		FY 2008	FY 2009	FY 2010			
AN/AQS-20A/MH-60S DT			3Q-4Q				
AN/AQS-20A/MH-60S OT				2Q			
Low Rate Initial Production I & II		1Q-4Q	1Q-4Q	1Q-4Q			
Full Rate Production Decision				4Q			
AN/AQS-20A P3I		1Q-4Q	1Q-4Q	1Q-4Q			

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EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION					DATE May 2009		
APPROPRIATION/BUDGET ACTIVITY RDTEN/BA 5		PROGRAM ELEMENT NUMBER AND NAME 0604373N/AIRBORNE MCM			PROJECT NUMBER AND NAME 2047/ALMDS		
COST (In Millions)	FY 2008	FY 2009	FY 2010				
Project Cost	12.414	6.438	11.106				
RDT&E Articles Qty	0	0	0				
A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:							
<p>The Airborne Laser Mine Detection System (ALMDS), designation AN/AES-1, is a light detection and ranging (LIDAR) Airborne Mine Countermeasures (AMCM) high area coverage system that detects, classifies, and localizes floating and near-surface , moored sea mines. The system is deployed from the MH-60S helicopter and will provide organic airborne mine defense to the battle force. The system represents a capability that does not exist in the current Mine Countermeasures (MCM) inventory.</p>							

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APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 5	PROGRAM ELEMENT NUMBER AND NAME 0604373N/AIRBORNE MCM	PROJECT NUMBER AND NAME 2047/ALMDS	
B. ACCOMPLISHMENTS/PLANNED PROGRAM:			
	FY 2008	FY 2009	FY 2010
Accomplishments/Effort/Subtotal Cost	7.156	1.572	7.893
RDT&E Articles Quantity	0	0	0
Hardware and Software technology development and demonstration/Engineering Services			
FY08: Continue engineering associated with Increment 1 Baseline.			
FY09: Post test engineering associated with Increment 1 Baseline			
FY10: Design and development of Increment II, full ORD performance.			
All: TDA Engineering/oversight/support of engineering efforts to meet baseline performance and full performance.			
	FY 2008	FY 2009	FY 2010
Accomplishments/Effort/Subtotal Cost	0.092	0.058	0.300
RDT&E Articles Quantity	0	0	0
Integrated Logistics Support			
FY08: Training for DT IIE, Prepare for OT-IIA			
FY09: Training associated with OT IIA			
FY10: IOC preparations			
ALL: TDA support of ILS Program, to include operator training, NATOPS documentation updates, and tech/maintenance manual updates.			
	FY 2008	FY 2009	FY 2010
Accomplishments/Effort/Subtotal Cost	4.460	4.685	2.038
RDT&E Articles Quantity	0	0	0

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EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)								DATE May 2009			
APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 5		PROGRAM ELEMENT NUMBER AND NAME 0604373N/AIRBORNE MCM				PROJECT NUMBER AND NAME 2047/ALMDS					
Testing and Evaluation											
FY08 DT-IID Phase C, and WSIT CT.											
FY09 Completion of DT-IIE and OT-IIA OPEVAL											
FY10: IOC Preparations											
						FY 2008		FY 2009		FY 2010	
Accomplishments/Effort/Subtotal Cost						0.706		0.123		0.875	
RDT&E Articles Quantity						0		0		0	
Project Management											
FY08: Production / Financial management in support of Testing of Increment 1											
FY09: Financial management / Contractor Support											
FY10: Financial Management/ Contractor Support											
ALL: TDA Program Management											
C. OTHER PROGRAM FUNDING SUMMARY:											
To Total											
Line Item No. and Name		FY 2008	FY 2009	FY 2010						Total Cost	
OPN 4248		20.800	6.252	22.300						49.352	
OPN 1600 LCS Mission Modules		0.000	73.684	137.259						210.943	

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EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)			DATE May 2009
APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 5	PROGRAM ELEMENT NUMBER AND NAME 0604373N/AIRBORNE MCM	PROJECT NUMBER AND NAME 2047/ALMDS	
<p>D. ACQUISITION STRATEGY: The first LRIP lot of two units was awarded as a new sole-source contract to the SD&D contractor in FY05. This is a Fixed-Price Incentive (FPI) contract with cost and schedule incentives. The March 2006 Program Review decision memorandum approved the ALMDS Program for LRIP 2 procurement of two units for FY07 pending successful demonstration of Engineering Change Proposal (ECP) I performance during DT-IID; DT-IID Phase B was conducted on an SH-60F helicopter and DT-IID phase C will be conducted on an MH-60S helicopter. LRIP Lot 2 (three units) was awarded in March of FY08. Full Rate Production (FRP) Lot 1 will also be an FRP option to LRIP I contract. FRP Lot 2 will be a new competitively awarded contract with options for the subsequent three years.</p> <p>E. MAJOR PERFORMERS: Major performers are various contractors, NSWC Panama City and NAVSEA.</p>			

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EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS									DATE May 2009			
APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 5		PROGRAM ELEMENT NUMBER AND NAME 0604373N/AIRBORNE MCM				PROJECT NUMBER AND NAME 2047/ALMDS						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost (\$000)			FY 2009 Cost (\$000)	FY 2009 Award Date	FY 2010 Cost (\$000)	FY 2010 Award Date		Total Cost (\$000)	Target Value of Contract
Hardware/Software Development	WX	NSWC PC	0.661			0.000		3.303	NOV-09		3.964	0.000
Hardware/Software Development	RX	Prime Contractor	28.626			0.000		0.823	NOV-09		29.449	0.000
Hardware/Software Development	RX	Metron	0.625			0.000		0.000			0.625	0.000
Hardware/Software Development	RX	SAIC	0.200			0.000	NOV-08	0.000			0.200	0.000
Engineering Services	WX	NSWC PC	12.489			0.024	NOV-08	1.565	NOV-09		CONT	0.000
Engineering Services	RX	Prime Contractor	16.095			0.198	NOV-08	0.000			16.293	0.000
Engineering Services	VAR	Various	11.451			1.168	NOV-08	2.166	NOV-09		CONT	0.000
Engineering Services	RX	Various	3.922			0.000		0.000			3.922	0.000
Engineering Services	RX	Metron/Arete	0.700			0.182	NOV-08	0.035	NOV-09		0.917	0.000
Subtotal Product Development			74.769			1.572		7.892			CONT	0.000
Remarks:												
ILS Functions	WX	NSWC PC	2.032			0.000		0.000			CONT	0.000
ILS Functions	WX	NSWC PC (Prime Contractor)	5.725			0.000		0.000			5.725	0.000
ILS Functions	VAR	Various/NRL Stennins	1.062			0.058	NOV-08	0.300	NOV-09		1.420	0.000
ILS Functions	WX	NSWC PC	0.300			0.000		0.000			0.300	0.000
Subtotal Support Costs			9.119			0.058		0.300			CONT	0.000
Remarks:												
Testing and Evaluation	RX	NSWC PC (Prime Contractor)	11.962			2.534	NOV-08	0.569	NOV-09		CONT	0.000
Testing and Evaluation	WX	NSWC PC	17.492			1.058	NOV-08	0.770	NOV-09		CONT	0.000
Testing and Evaluation	VAR	Various	0.392			0.000		0.000			0.392	0.000
Testing and Evaluation	WX	NAWC AD PAX	0.000			1.093	NOV-08	0.700	NOV-09		1.793	0.000
Subtotal Test and Evaluation			29.846			4.685		2.039			CONT	0.000
Remarks:												
Travel	PD	NAVSEA	0.285			0.000		0.000			0.285	0.000
Management Support	VAR	Various	1.993			0.050	NOV-08	0.050	NOV-09		2.093	0.000
Management Support	WX	NSWC PC	2.450			0.073	NOV-08	0.800	NOV-09		CONT	0.000

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APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 5		PROGRAM ELEMENT NUMBER AND NAME 0604373N/AIRBORNE MCM				PROJECT NUMBER AND NAME 2047/ALMDS						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost (\$000)			FY 2009 Cost (\$000)	FY 2009 Award Date	FY 2010 Cost (\$000)	FY 2010 Award Date		Total Cost (\$000)	Target Value of Contract
Management Support	WX	NSWC PC	1.939			0.000		0.025	NOV-09		1.964	0.000
Subtotal Management Services			6.667			0.123		0.875			CONT	0.000
Remarks:												
Total Cost			120.401			6.438		11.106			CONT	0.000

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EXHIBIT R-4, SCHEDULE PROFILE

DATE
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APPROPRIATION/BUDGET ACTIVITY
RD TEN/BA 5

PROGRAM ELEMENT NUMBER AND NAME
0604373N/AIRBORNE MCM

PROJECT NUMBER AND NAME
2047/ALMDS

Fiscal Year	2008				2009				2010																			
	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	
Acquisition Milestones																												
Fabrication	PCA																											
System Development	△																											
Production Awards																												
Test & Evaluation Milestones	DT IID (SH-60F/MH-60S) / CT(MH-60S)																											
Contractor Test	[Bar]																											
Development Test																												
Operational Test																												
Production Milestones																												
LRIP FY 05																												
FRP FY 10																												
N85 Deliveries																												

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EXHIBIT R-4a, SCHEDULE DETAIL						DATE May 2009	
APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 5		PROGRAM ELEMENT NUMBER AND NAME 0604373N/AIRBORNE MCM			PROJECT NUMBER AND NAME 2047/ALMDS		
Schedule Profile		FY 2008	FY 2009	FY 2010			
CT/DT IID		1Q-4Q	1Q				
Physical Configuration Audit (PCA)		1Q					
Increment II Development				1Q-4Q			
Spiral 1 VSW Development and Test							
Full Rate Production (FRP) Decision				3Q			
IOC				4Q			
LRIP 2 Units Deliveries (02)				2Q			
Full Rate Production (FRP) Start (FRP 1)				4Q			
Full Rate Production (FRP) Start (FRP 2)							
Full Rate Production (FRP) Start (FRP 3)							
Full Rate Production Delivery Start (FRP 1)							
Full Rate Production Delivery Start (FRP 2)							
Full Rate Production Delivery Start (FRP 3)							
DT-II E			3Q-4Q				
OT-II A OPERATIONAL TESTING (OPEVAL)				2Q			
DT-II F							
OT-II B OPERATIONAL TESTING (OPEVAL)							

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COST (In Millions)	FY 2008	FY 2009	FY 2010				
Project Cost	7.576	7.035	9.832				
RDT&E Articles Qty	0	0	0				
A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:							
<p>The Organic Airborne and Surface Influence Sweep (OASIS) system is a towed Minesweeping System to be deployed from specially configured MH-60S helicopters. The system provides a rapid response sweeping capability against bottom and moored, buried, acoustic and magnetic, or combination acoustic/magnetic influence mines in support of mine clearance operations where mine hunting is ineffective. The system consists of a towed body, tow and sweep cable systems, power inverter, power distribution unit and storage/shipping containers. System interfaces with the MH-60S helicopter via the carriage, stream, tow and recovery system and the common console. The program is currently in the SD&D phase where three engineering development models (EDMs) are being developed for test and evaluation. This budget also supported an R&D effort to develop the Organic Cable Reeling Assembly (ORCA), a maintenance tool for cables used by OASIS and other systems. ORCA will provide a system for loading and unloading cables on the Carriage Stream and Recovery System (CSTRS) without the requirement for an MH60 helicopter. Areas of interest for program enhancement include but are not limited to the following: A) Real-time Mission Planning B) Threat Emulation Jamming C) Improved Power Inverter D) Light weight winch drive-train E) Improved magnetic performance. ORCA development was funded by OASIS in FY06, FY07, and FY08.</p>							

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EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION			DATE May 2009
APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 5	PROGRAM ELEMENT NUMBER AND NAME 0604373N/AIRBORNE MCM	PROJECT NUMBER AND NAME 2427/OASIS	
B. ACCOMPLISHMENTS/PLANNED PROGRAM:			
	FY 2008	FY 2009	FY 2010
Accomplishments/Effort/Subtotal Cost	1.422	0.793	0.444
RDT&E Articles Quantity	0	0	0
Product Development			
FY08:			
Continue development of ORCA.			
Continue OASIS EDM development			
Develop solutions for forward Electrode AFT Sweep Cable			
FY09:			
Continue OASIS EDM development work issues including corrosion, forward electrode, and AFT Sweep Cable			
Conduct CDR for BME design			
FY10:			
Continue EDM development through MH-60 CT			
MS C Review			
	FY 2008	FY 2009	FY 2010
Accomplishments/Effort/Subtotal Cost	5.701	5.789	5.868
RDT&E Articles Quantity	0	0	0
FY08:			
Engineering and ILS support for ORCA contract			
Office of Naval Research program support			
Support for development of OASIS Maintenance Test Sets			
Analysis of MIL-STD 704A Testing Issues			
FY09:			
Office of Naval Research program support			
Engineering and ILS support for Operational Assessment			
Engineering and ILS BME Design and Development			

CLASSIFICATION:	UNCLASSIFIED								
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)			DATE May 2009						
APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 5	PROGRAM ELEMENT NUMBER AND NAME 0604373N/AIRBORNE MCM	PROJECT NUMBER AND NAME 2427/OASIS							
FY10: Office of Naval Research program support Engineering and ILS support for CT and DT									
	FY 2008	FY 2009	FY 2010						
Accomplishments/Effort/Subtotal Cost	0.000	0.000	3.058						
RDT&E Articles Quantity	0	0	0						
FY10: Conduct OASIS Operational Assessment, and begin NH-60 CT									
	FY 2008	FY 2009	FY 2010						
Accomplishments/Effort/Subtotal Cost	0.453	0.453	0.462						
RDT&E Articles Quantity	0	0	0						
Monitor contractor progress with regard to schedule, cost, and technical status management									
Monitor contractor CDRL and other deliverables.									
C. OTHER PROGRAM FUNDING SUMMARY:									
To Total									
Line Item No. and Name	FY 2008	FY 2009	FY 2010						Total Cost
OPN 4248 (OASIS)	0.000	0.000	0.000						0.000
OPN 4248 (ORCA)	2.102	2.893	1.200						6.195
OPN LCS Mission Modules	0.000	73.684	137.259						210.943
D. ACQUISITION STRATEGY:									
After Milestone B review in FY02, a SD&D contract was awarded. In FY07, the program successfully completed MH-53 CT and Tower Testing. An Operational Assessment is planned for FY09 MH-60 CT in FY10.									
E. MAJOR PERFORMERS:									
Major performers are various contractors, NSWC Panama City, NSWC Carderock, ONR, and NAVSEA.									

CLASSIFICATION:		UNCLASSIFIED										
EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS									DATE May 2009			
APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 5		PROGRAM ELEMENT NUMBER AND NAME 0604373N/AIRBORNE MCM				PROJECT NUMBER AND NAME 2427/OASIS						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost (\$000)			FY 2009 Cost (\$000)	FY 2009 Award Date	FY 2010 Cost (\$000)	FY 2010 Award Date		Total Cost (\$000)	Target Value of Contract
Hardware/Software Development	C/CPFF	EDO Corp.	1.722			0.000		0.200	NOV-09		1.922	0.000
Hardware/Software Development	C/CPIF	EDO Corp.	13.134			0.368	NOV-08	0.000			13.502	0.000
Hardware/Software Development	SS/CPFF	Aeptec Microsystems Inc.	5.898			0.000		0.000			5.898	0.000
Hardware/Software Development	WX	NSWC PC	0.609			0.425	NOV-08	0.244	NOV-09		1.278	0.000
Subtotal Product Development			21.363			0.793		0.444			22.600	0.000
Remarks:												
Engineering Services	WX	NUWC Keyport	0.659			0.000		0.000			0.659	0.000
Engineering Services	C/CPIF	EDO Corp.	14.626			1.207	NOV-08	1.526	NOV-09		CONT	0.000
Engineering Services	WX	NSWC PC	16.789			3.308	NOV-08	2.156	NOV-09		CONT	0.000
Engineering Services	WX	NSWC Carderock MD	0.300			0.000		0.000			0.300	0.000
Engineer Services/ILS	VAR	Various	0.548			0.000		0.000			0.548	0.000
Engineering Services	PD	ONR	8.349			0.674	NOV-08	1.304	NOV-09		CONT	0.000
ILS Functions	C/CPIF	EDO Corp.	4.518			0.200	NOV-08	0.146	NOV-09		CONT	0.000
ILS Functions	WX	NSWC, PC	2.868			0.400	NOV-08	0.736	NOV-09		CONT	0.000
Subtotal Support Costs			48.657			5.789		5.868			CONT	0.000
Remarks:												
T&E Functions	C/CPIF	EDO Corp	7.668			0.000	NOV-08	0.125	NOV-09		CONT	0.000
T&E Functions	WX	NSWC PC	12.290			0.000	NOV-08	2.933	NOV-09		CONT	0.000
T&E Functions	VAR	Various	0.554			0.000		0.000			0.554	0.000
Subtotal Test and Evaluation			20.512			0.000		3.058			CONT	0.000
Remarks:												
Management Services	VAR	Various	5.664			0.428	NOV-08	0.432	NOV-09		6.524	0.000
Travel	PD	NAVSEA	0.315			0.025	NOV-08	0.030	NOV-09		0.370	0.000
Subtotal Management Services			5.979			0.453		0.462			6.894	0.000
Remarks:												

CLASSIFICATION:		UNCLASSIFIED										
EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS									DATE May 2009			
APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 5		PROGRAM ELEMENT NUMBER AND NAME 0604373N/AIRBORNE MCM					PROJECT NUMBER AND NAME 2427/OASIS					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost (\$000)			FY 2009 Cost (\$000)	FY 2009 Award Date	FY 2010 Cost (\$000)	FY 2010 Award Date		Total Cost (\$000)	Target Value of Contract
Total Cost			96.511			7.035		9.832			CONT	0.000

CLASSIFICATION:

UNCLASSIFIED

EXHIBIT R-4, SCHEDULE PROFILE

DATE

May 2009

APPROPRIATION/BUDGET ACTIVITY
RD TEN/BA 5

PROGRAM ELEMENT NUMBER AND NAME
0604373N/AIRBORNE MCM

PROJECT NUMBER AND NAME
2427/OASIS

Fiscal Year	2008				2009				2010																			
	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	
OASIS																												
Acquisition Milestones																												
System Development																												
Test & Evaluation Milestones																												
Contractor Test																												
Development Test																												
Operational Test																												
Production Milestones																												

OA MH-53
 
 CT MH-60S

CLASSIFICATION:		UNCLASSIFIED					
EXHIBIT R-4a, SCHEDULE DETAIL						DATE May 2009	
APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 5		PROGRAM ELEMENT NUMBER AND NAME 0604373N/AIRBORNE MCM			PROJECT NUMBER AND NAME 2427/OASIS		
Schedule Profile		FY 2008	FY 2009	FY 2010			
MH-53 OA				3Q			
CT MH-60s Testing				4Q			
DT Testing							
OPEVAL							
Milestone C (LRIP)							
Post Milestone PRR							
LRIP Contract Award							
FRP Contract Award							
Initial Operational Capability							

CLASSIFICATION:		UNCLASSIFIED					
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION					DATE May 2009		
APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 5		PROGRAM ELEMENT NUMBER AND NAME 0604373N/AIRBORNE MCM			PROJECT NUMBER AND NAME 2473/Airborne Mine Neutralization System		
COST (In Millions)	FY 2008	FY 2009	FY 2010				
Project Cost	23.895	20.344	20.110				
RDT&E Articles Qty	0	0	0				
A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:							
<p>AMNS will provide the MH-60S helicopter with the capability to neutralize bottom and moored mines using an expendable mine neutralization device. The AMNS is being tested on the MH-53E helicopter to prove out the neutralization effectiveness. The system will be deployed from the MH-60S helicopter as part of the Littoral Combat Ship (LCS) Mine Warfare Mission Module. This capability will be of critical importance in littoral zones, confined straits, choke points, and the Amphibious Objective Area (AOA).</p> <p>The AN/AWS-2 Rapid Airborne Mine Clearance System (RAMICS) MIW program began Concept & Technology Development phase in FY00. RAMICS will satisfy the U.S. Navy's need for a rapid mine clearance capability required to neutralize near-surface and surface (floating) moored sea mines. RAMICS will use geo-location data provided by other mine hunting and mine reconnaissance systems, use a laser system to reacquire targets and to direct the fire of supercavitating projectiles that will render the mines inoperable. RAMICS includes the following major subsystems:</p> <ul style="list-style-type: none"> (a) Gun Subsystem (including gun and turret) (b) Munition Subsystem - MK258 Mod 1 Armor Piercing, Fin Stabilized, Discarding Sabot-Tracer (APFSDS-T) (c) Targeting Sensor Subsystem. (d) Fire Control Subsystem. <p>The system will be deployed from the MH-60S helicopter and will provide organic airborne mine defense as part of Littoral Combat Ship (LCS) Mine Warfare Mission Module. This capability will be of critical importance in littoral zones, confined straits, choke points, and the Amphibious Objective Area (AOA).</p>							

CLASSIFICATION:		UNCLASSIFIED	
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION			DATE May 2009
APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 5	PROGRAM ELEMENT NUMBER AND NAME 0604373N/AIRBORNE MCM	PROJECT NUMBER AND NAME 2473/Airborne Mine Neutralization System	
B. ACCOMPLISHMENTS/PLANNED PROGRAM:			
	FY 2008	FY 2009	FY 2010
Accomplishments/Effort/Subtotal Cost	2.643	2.307	2.141
RDT&E Articles Quantity	0	0	0
AMNS			
FY08 - FY10: Develop logistics products, including training materials and interactive technical manual. Provide engineering support, including review for product development and integration.			
	FY 2008	FY 2009	FY 2010
Accomplishments/Effort/Subtotal Cost	6.053	3.029	5.041
RDT&E Articles Quantity	0	0	0
AMNS			
FY08: Initiate MH-60S TECHEVAL.			
FY09: Conduct Regression Testing prior to re-entry MH-60S TECHEVAL.			
FY10: Support Testing on untethered LHS.			
	FY 2008	FY 2009	FY 2010
Accomplishments/Effort/Subtotal Cost	0.333	0.164	0.183
RDT&E Articles Quantity	0	0	0
AMNS			
FY08 - FY10: Provide program management support and travel for AMNS.			
	FY 2008	FY 2009	FY 2010
Accomplishments/Effort/Subtotal Cost	0.000	0.000	0.000
RDT&E Articles Quantity	0	0	0
	FY 2008	FY 2009	FY 2010
Accomplishments/Effort/Subtotal Cost	2.200	4.383	3.400
RDT&E Articles Quantity	0	0	0
RAMICS			
FY08: Continue RAMICS design and fabrication of Engineering Development Models (EDMs). Conduct Contractor Testing (CT)			

CLASSIFICATION:		UNCLASSIFIED		
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)				DATE May 2009
APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 5	PROGRAM ELEMENT NUMBER AND NAME 0604373N/AIRBORNE MCM	PROJECT NUMBER AND NAME 2473/Airborne Mine Neutralization System		
FY09: Conduct Alternate Platform Testing/OA, Contractor Testing (CT), WIST Ground Testing, EDM Delivery, captive carriage and jettison testing on the MH-60s helicopter.				
FY10: Conduct WSIT CT Testing and MS C.				
		FY 2008	FY 2009	FY 2010
Accomplishments/Effort/Subtotal Cost		4.738	4.645	4.695
RDT&E Articles Quantity		0	0	0
RAMICS				
FY08: Support Project management, system engineering, ILS and Software Development.				
FY09: Support Project management, system engineering, ILS and Software Development.				
FY10: Support Project management, System engineering, ILS and Software Development.				
		FY 2008	FY 2009	FY 2010
Accomplishments/Effort/Subtotal Cost		5.481	4.766	3.850
RDT&E Articles Quantity		0	0	0
RAMICS				
FY08: Support Contractor Testing (CT) and Integration.				
FY09: Support Alternate Platform Testing CC&J, and Evironmental Quals.				
FY10: Support WIST CT Testing and MS C.				
		FY 2008	FY 2009	FY 2010
Accomplishments/Effort/Subtotal Cost		2.447	1.050	0.800
RDT&E Articles Quantity		0	0	0
RAMICS				
FY08: Support all Program Management and T&E efforts.				
FY09: Support all Program Management and T&E efforts.				

CLASSIFICATION:	UNCLASSIFIED
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EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)	DATE May 2009
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APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 5	PROGRAM ELEMENT NUMBER AND NAME 0604373N/AIRBORNE MCM	PROJECT NUMBER AND NAME 2473/Airborne Mine Neutralization System
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FY10: Support all Program Management and T&E efforts.

C. OTHER PROGRAM FUNDING SUMMARY:

To Total

Line Item No. and Name	FY 2008	FY 2009	FY 2010						
AMNS	0.000	0.000	0.000						
OPN 4248	7.946	10.956	11.300						
AMNS	0.000	0.000	0.000						
WPN 4225	6.522	8.593	4.439						
OPN 1600 LCS Mission Modules	0.000	73.684	137.259						
RAMICS	0.000	0.000	0.000						
WPN 4225	0.000	0.000	0.000						
RAMICS	0.000	0.000	0.000						
PANMC 1960	0.000	0.967	0.000						
WPN 4221 LCS RAMICS	0.000	0.000	0.000						

D. ACQUISITION STRATEGY:

AMNS: In FY08 following a successful alternate platform test, contractor test on an MH-60S, and MS-C, the Navy exposed three (3) LRIP options in the current AMNS SD&D contract with Raytheon. Following the successful completion of DT on an MH-60S and a Gate 6 review in FY09, the Navy will award four (4) additional LRIP Units to Raytheon.

Following a successful OT on an MH-60S, FRP is planned for FY10. The Navy has awarded a sole source contract for BAE for Common Neutralizer procurements, which began in FY08.

RAMICS: Achieved MS B in July 2002 and awarded SD&D contract in August 2002 based on a full and open competition.

E. MAJOR PERFORMERS:

Major performers and various contractors, NSWC PC, COTF, and NAVSEA.

CLASSIFICATION:		UNCLASSIFIED										
EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS									DATE May 2009			
APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 5		PROGRAM ELEMENT NUMBER AND NAME 0604373N/AIRBORNE MCM				PROJECT NUMBER AND NAME 2473/Airborne Mine Neutralization System						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost (\$000)			FY 2009 Cost (\$000)	FY 2009 Award Date	FY 2010 Cost (\$000)	FY 2010 Award Date		Total Cost (\$000)	Target Value of Contract
Hardware/Software Development	C/845	Lockheed Syracuse, NY	3.331			0.000		0.000			3.331	0.000
Hardware/Software Development	VAR	Various	3.359			0.000		0.000			3.359	0.000
Hardware/Software Development	WX	NSWC PC	2.275			0.000		0.000			2.275	0.000
Hardware/Software Development	C/CPIF	Raytheon, Portsmouth RI	16.354			0.000		0.000			22.136	0.000
Untethered Hardware Development	C/CPIF	TBD	0.000			0.000		0.000			1.258	0.000
Untethered Hardware Development	WX	NSWC PC	0.000			0.000		0.000			0.000	0.000
Subtotal Product Development			25.319			0.000		0.000			32.359	0.000
Remarks: AMNS ONLY												
Engineering Services	VAR	Various	3.300			0.000		0.000			3.300	0.000
Engineering Services	WX	NSWC	19.467			1.083	NOV-08	1.273	NOV-09		21.823	0.000
Engineering Services	C/CPIF	Raytheon, Portsmouth RI	8.895			0.807	NOV-08	0.590	NOV-09		10.292	0.000
Untethered Engineering Services	C/CPIF	TBD	0.000			0.000		0.000			0.995	0.000
Untethered Engineering Services	WX	NSWC PC	0.000			0.000		0.000			1.549	0.000
ILS Functions	WX	NSWC	4.506			0.291	NOV-08	0.194	NOV-09		4.991	0.000
ILS Functions	SS/BOA	Lockheed Syracuse NY	0.227			0.000		0.000			0.227	0.000
ILS Functions	C/CPIF	Raytheon, Portsmouth RI	1.986			0.126	NOV-08	0.084	NOV-09		2.196	0.000
Untethered ILS Functions	C/CPIF	TBD	0.000			0.000		0.000			0.229	0.000
Untethered ILS Functions	WX	NSWC PC	0.000			0.000		0.000			1.052	0.000
Subtotal Support Costs			38.381			2.307		2.141			46.654	0.000
Remarks: AMNS ONLY												
Development Test & Evaluation	VAR	Various	0.300			0.000		0.000			0.300	0.000
Development Test & Evaluation	WX	NSWC	20.652			3.029	NOV-08	2.787	NOV-09		26.468	0.000
Development Test & Evaluation	SS/BOA	Lockheed Syracuse NY	1.254			0.000		0.000			1.254	0.000
Development Test & Evaluation	C/CPIF	Raytheon Portsmouth RI	6.907			0.000		0.000			6.907	0.000
Operational Test & Evaluation	WX	COTF Norfolk VA	1.388			0.000	NOV-08	2.254	NOV-09		3.642	0.000

CLASSIFICATION:		UNCLASSIFIED										
EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS										DATE		
										May 2009		
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME					PROJECT NUMBER AND NAME					
RD TEN/BA 5		0604373N/AIRBORNE MCM					2473/Airborne Mine Neutralization System					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost (\$000)			FY 2009 Cost (\$000)	FY 2009 Award Date	FY 2010 Cost (\$000)	FY 2010 Award Date		Total Cost (\$000)	Target Value of Contract
Operational Test & Evaluation	SS/BOA	Lockheed Syracuse NY	0.767			0.000		0.000			0.767	0.000
Test Assets	C/CPIF	Raytheon Portsmouth RI	3.065			0.000		0.000			3.065	0.000
Untethered Test and Evaluation	C/CPIF	TBD	0.000			0.000		0.000			0.559	0.000
Untethered Test and Evaluation	WX	NSWC PC	0.000			0.000		0.000			2.798	0.000
Subtotal Test and Evaluation			34.333			3.029		5.041			45.760	0.000
Remarks: AMNS ONLY												
Program Management Support	VAR	Various	2.778			0.124	NOV-08	0.143	NOV-09		3.045	0.000
Travel	PD	NAVSEA	0.334			0.040	NOV-08	0.040	NOV-09		0.414	0.000
Untethered Program Management	VAR	TBD	0.000			0.000		0.000			0.406	0.000
Subtotal Management Services			3.112			0.164		0.183			3.865	0.000
Remarks: AMNS ONLY												
Hardware/Software Development	C/CPIF	Northrop Grumman, FL	32.129			2.750	OCT-08	2.335	OCT-09		38.214	0.000
Hardware/Software Development	WX	NSWC PC	1.854			1.258	OCT-08	0.690	OCT-09		4.812	0.000
Hardware/Software Development	RCP	Crane - Crane IN	2.595			0.375	OCT-08	0.375	OCT-09		3.395	0.000
Subtotal PRODUCT DEVELOPMENT RAMICS			36.578			4.383		3.400			46.421	0.000
Remarks: RAMICS ONLY												
Engineering Services	C/CPIF	Northrop Grumman FL	13.557			2.000	OCT-08	2.000	OCT-09		19.057	0.000
Engineering Services	WX	NSWC PC	9.984			1.500	OCT-08	1.500	OCT-09		14.484	0.000
Engineering Services	Various	Crane - Crane IN	3.107			0.045	OCT-08	0.045	OCT-09		3.297	0.000
Engineering Services	WX	Various	2.507			0.100	OCT-08	0.100	OCT-09		2.807	0.000
ILS Functions	C/CPIF	Northrop Grumman FL	6.495			0.350	OCT-08	0.350	OCT-09		7.695	0.000
ILS Functions	WX	NSWC PC	1.535			0.175	OCT-08	0.175	OCT-09		2.885	0.000
ILS Functions	Various	Various	2.580			0.475	OCT-08	0.525	OCT-09		3.680	0.000

CLASSIFICATION:		UNCLASSIFIED										
EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS									DATE May 2009			
APPROPRIATION/BUDGET ACTIVITY RDTEN/BA 5		PROGRAM ELEMENT NUMBER AND NAME 0604373N/AIRBORNE MCM				PROJECT NUMBER AND NAME 2473/Airborne Mine Neutralization System						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost (\$000)			FY 2009 Cost (\$000)	FY 2009 Award Date	FY 2010 Cost (\$000)	FY 2010 Award Date		Total Cost (\$000)	Target Value of Contract
Subtotal SUPPORT COSTS RAMICS			39.765			4.645		4.695			53.905	0.000
Remarks: RAMICS ONLY												
Test & Evaluation	C/CPIF	Northrop Grumman, FL	7.915			3.758	OCT-08	3.095	OCT-09		15.518	0.000
Test & Evaluation	WX	NSWC PC	4.914			0.599	OCT-08	0.455	OCT-09		6.718	0.000
Test & Evaluation	WX	Crane - Crane IN	1.899			0.206	OCT-08	0.000	OCT-09		3.105	0.000
Test & Evaluation	Various	Various	7.838			0.203	OCT-08	0.300	OCT-09		9.091	0.000
Test & Evaluation	FFP	QinetiQ, UK	3.000			0.000	OCT-08	0.000	OCT-09		3.000	0.000
Subtotal TEST AND EVALUATION RAMICS			25.566			4.766		3.850			37.432	0.000
Remarks: RAMICS ONLY												
Management Support	Various	Various	5.433			1.000	OCT-08	0.750	OCT-09		7.983	0.000
Management Support	PD	Travel	0.280			0.050	OCT-08	0.050	OCT-09		0.480	0.000
Subtotal MANAGEMENT SERVICES RAMICS			5.713			1.050		0.800			8.463	0.000
Remarks: RAMICS ONLY												
Total Cost			208.767			20.344		20.110			274.859	0.000

CLASSIFICATION:

UNCLASSIFIED

EXHIBIT R-4, SCHEDULE PROFILE

DATE
May 2009

APPROPRIATION/BUDGET ACTIVITY
RD TEN/BA 5

PROGRAM ELEMENT NUMBER AND NAME
0604373N/AIRBORNE MCM

PROJECT NUMBER AND NAME
2473/Airborne Mine Neutralization System

Fiscal Year	2008				2009				2010			
	1	2	3	4	1	2	3	4	1	2	3	4
AMNS												
Acquisition Milestones		MSC ▲										
Prototype Phase	SD&D											
EDM Contract Award												
Significant Events												
EDM Deliveries												
Test & Evaluation Milestones												
Developmental Testing (DT)			DT I/II ■						DT III/LFT □			
Operational Testing (OT)											OT □	
Production Milestones												
LRIP		LRIP ▲										
FRP												
Deliveries												
LRIP								▲	□			
FRP												

CLASSIFICATION:

UNCLASSIFIED

EXHIBIT R-4, SCHEDULE PROFILE

DATE

May 2009

APPROPRIATION/BUDGET ACTIVITY
RD TEN/BA 5

PROGRAM ELEMENT NUMBER AND NAME
0604373N/AIRBORNE MCM

PROJECT NUMBER AND NAME
2473A/RAMICS

Fiscal Year	2008				2009				2010																								
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4					
Acquisition Milestones																																	
Program Phases	System Development and Demonstration (SD&D)																																
Significant Events																																	
EDM Delivery																																	
Test & Evaluation Milestones																																	
Production Milestones																																	

CLASSIFICATION:		UNCLASSIFIED					
EXHIBIT R-4a, SCHEDULE DETAIL						DATE May 2009	
APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 5		PROGRAM ELEMENT NUMBER AND NAME 0604373N/AIRBORNE MCM			PROJECT NUMBER AND NAME 2473/Airborne Mine Neutralization System		
Schedule Profile		FY 2008	FY 2009	FY 2010			
AMNS							
SD&D Phase		1Q-4Q	1Q-4Q	1Q-2Q			
Milestone C (MS C)		2Q					
LRIP (MH-60S) Start		2Q					
Development Testing (MH-60s)		3Q-4Q		1Q-2Q			
Operational Testing (MH-60s) Start				4Q			
FRPDR (MH-60s)							
LRIP Delivers Start			4Q				
FRP (MH-60s) Start							
FRP Delivers Start							
RAMICS							
System Development and Demonstration (SD&D) Phase		1Q-4Q	1Q-4Q	1Q-4Q			
Program Assessment			2Q-3Q				
Software Requirements Verification			2Q-4Q	1Q-3Q			
Modeling			3Q-4Q				
SIM/STIM				3Q-4Q			
Engineering Development			3Q-4Q	1Q-4Q			
EDM Delivery			2Q				
Contractor Performance Testing (no AC)			1Q				
Flight Qualification Testing			3Q-4Q	1Q			
LIDAR Data Collection			3Q-4Q	2Q-3Q			
Gun Fire Testing				1Q-2Q			

CLASSIFICATION:		UNCLASSIFIED					
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION					DATE May 2009		
APPROPRIATION/BUDGET ACTIVITY RDTEN/BA 5		PROGRAM ELEMENT NUMBER AND NAME 0604373N/AIRBORNE MCM			PROJECT NUMBER AND NAME 4026/Strat Into Medal, Tactics & Trng Organic Force		
COST (In Millions)	FY 2008	FY 2009	FY 2010				
Project Cost	3.680	2.776	1.946				
RDT&E Articles Qty	0	0	0				
A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:							
<p>The C4I, Tactics, Mission Planning, and Post-Mission Analysis (CTMP) program began in FY97 as an initiative to provide near-real-time data linking of mine sensor data between the MH-53E aircraft and ship- and/or shore-based command centers. Additionally, the program began to develop MEDAL modules for each "Next Generation" system; and plans to develop "Next Generation" tactics; provide threat data and system requirements and capabilities to the MEDAL software development effort; and develop a common post-mission analysis tool for "Next Generation" systems.</p>							

CLASSIFICATION:		UNCLASSIFIED	
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION			DATE May 2009
APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 5	PROGRAM ELEMENT NUMBER AND NAME 0604373N/AIRBORNE MCM	PROJECT NUMBER AND NAME 4026/Strat Into Medal, Tactics & Trng Organic Force	
B. ACCOMPLISHMENTS/PLANNED PROGRAM:			
	FY 2008	FY 2009	FY 2010
Accomplishments/Effort/Subtotal Cost	1.175	0.762	0.816
RDT&E Articles Quantity	0	0	0
FY08: Hardware/Software Development:			
FY09: Code core OPMA module			
FY10: Code system-specific OPMA Modules			
	FY 2008	FY 2009	FY 2010
Accomplishments/Effort/Subtotal Cost	2.342	1.851	1.015
RDT&E Articles Quantity	0	0	0
Engineering Services/ILS:			
FY08: OAMCM Tactics Continuum materials			
FY09: Reachback Support for tactical employment of OAMCM systems			
FY10: Incorporate tactics lessons learned into TACMEMOs			
	FY 2008	FY 2009	FY 2010
Accomplishments/Effort/Subtotal Cost	0.000	0.000	0.115
RDT&E Articles Quantity	0	0	0
T&E Support for MEDAL/PMA integration during WSIT CT and DT			
	FY 2008	FY 2009	FY 2010
Accomplishments/Effort/Subtotal Cost	0.163	0.163	0.000
RDT&E Articles Quantity	0	0	0
FY08: Field Activity program management and travel			
FY09: MEDAL contractor management support to CTMP			

CLASSIFICATION:	UNCLASSIFIED
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EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)	DATE May 2009
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APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 5	PROGRAM ELEMENT NUMBER AND NAME 0604373N/AIRBORNE MCM	PROJECT NUMBER AND NAME 4026/Strat Into Medal, Tactics & Trng Organic Force
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FY11: MEDAL contractor management support to CTMP

C. OTHER PROGRAM FUNDING SUMMARY:

To Total

Line Item No. and Name	FY 2008	FY 2009	FY 2010						Total Cost
OPN 4248, S0090, OPMA	0.256	0.256	0.256						0.768

D. ACQUISITION STRATEGY:

The Organic Post-Mission Analysis (OPMA) capability for the OAMCM systems will be developed by NSWC PC, Panama City, FL. The OPMA project will leverage existing system-specific developmental PMA software, maximize commonality, and host the software on a common shipboard computer. OPN funding will be used to procure ruggedized portable OPMA computers for ship of opportunity deployments, land basing, and training. Development of OAMCM-system-specific MEDAL modules will be performed by SAIC, McLean, VA. This effort will include post-test updates for the system-specific MEDAL modules to allow transition to a Fleet release. NSWC-PC will contract for this work on a time and materials basis. The tactics development, tactics training, and tactics algorithms/database efforts are performed by NSWC-PC. These efforts will provide reach back support as the OAMCM systems begin to be fielded; will develop modifications to environmental databases necessary to support OAMCM mission planning; will update the MIW Tactics Continuum to address OAMCM; and will update the gear and mine database for threats addressed by the OAMCM systems.

E. MAJOR PERFORMERS:

Major performers are various contractors, NAVO, and NSWC PC.

CLASSIFICATION:		UNCLASSIFIED										
EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS									DATE May 2009			
APPROPRIATION/BUDGET ACTIVITY RDTEN/BA 5		PROGRAM ELEMENT NUMBER AND NAME 0604373N/AIRBORNE MCM				PROJECT NUMBER AND NAME 4026/"Strat Into Medal, Tactics & Trng Organic Force"						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost (\$000)			FY 2009 Cost (\$000)	FY 2009 Award Date	FY 2010 Cost (\$000)	FY 2010 Award Date		Total Cost (\$000)	Target Value of Contract
Hardware/Software Development	RX	SAIC	1.256			0.250	NOV-08	0.275	NOV-09		1.781	0.000
Hardware/Software Development	WX	NSWC PC	1.993			0.512	OCT-08	0.541	OCT-09		3.046	0.000
Subtotal Product Development			3.249			0.762		0.816			4.827	0.000
Remarks:												
Engineering Services	WX	NAVO	0.030			0.004	OCT-08	0.000	OCT-09		CONT	0.000
Engineering Services	VAR	Various	0.560			0.172	OCT-08	0.272	OCT-09		CONT	0.000
Engineering Services	WX	NSWC PC	2.226			0.834	OCT-08	0.578	OCT-09		3.638	0.000
Engineering Services	RX	BAE	0.579			0.369	NOV-08	0.000			0.948	0.000
Engineering Services	RX	SAIC	0.590			0.150	NOV-08	0.000			0.740	0.000
ILS	WX	NSWC PC	0.893			0.322	OCT-08	0.165	OCT-09		1.380	0.000
Subtotal Support Costs			4.878			1.851		1.015			CONT	0.000
Remarks:												
Test and Evaluation	WX	NSWC PC	0.040			0.000		0.000			0.040	0.000
Subtotal Test and Evaluation			0.040			0.000		0.000			0.040	0.000
Remarks:												
Management Support	WX	NSWC PC	0.687			0.140	OCT-08	0.090	OCT-09		0.917	0.000
Management Support	RX	SAIC	0.083			0.023	NOV-08	0.025	NOV-09		0.131	0.000
Subtotal Management Services			0.770			0.163		0.115			1.048	0.000
Remarks:												
Total Cost			8.937			2.776		1.946			CONT	0.000

CLASSIFICATION:

UNCLASSIFIED

EXHIBIT R-4, SCHEDULE PROFILE

DATE

May 2009

APPROPRIATION/BUDGET ACTIVITY
RD TEN/BA 5

PROGRAM ELEMENT NUMBER AND NAME
0604373N/AIRBORNE MCM

PROJECT NUMBER AND NAME
4026/"Strat Into Medal, Tactics & Trng Organic Force"

Fiscal Year	2008				2009				2010																	
	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
MEDAL	Training development ALMDS				Training development RAMICS																					
	[Bar]				[Bar]				[Bar]																	
									Post-FAT bug fixes, RAMICS																	
Organic PMA	Ongoing development for OAMCM P3; software support																									
	OASIS S/W rqmts. [Bar]				OASIS S/W [Bar]																					
	ALMDS S/W rqmts. [Bar]																									
	ALMDS S/W [Bar]																									
	AMNS S/W [Bar]								RAMICS S/W [Bar]																	
Tactics & Databases																										
Develop overarching CONOE for integrated MCM																										
Incorporate DT/OT Lessons Learned into TACMEMO					Q-20 [Bar]				OASIS [Bar]																	
									ALMDS [Bar]																	
					AMNS [Bar]																					
Reachback support OAMCM	[Bar]																									
Establish and update Gear & Mine Database for OAMCM									[Bar]																	
Tactics, techniques, & procedures for environmental survey																										

CLASSIFICATION:		UNCLASSIFIED					
EXHIBIT R-4a, SCHEDULE DETAIL						DATE May 2009	
APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 5		PROGRAM ELEMENT NUMBER AND NAME 0604373N/AIRBORNE MCM			PROJECT NUMBER AND NAME 4026/"Strat Into Medal, Tactics & Trng Organic Force"		
Schedule Profile		FY 2008	FY 2009	FY 2010			
MEDAL: ALMDS training development		1Q-4Q					
MEDAL: RAMICS training development			1Q-4Q				
MEDAL: RAMICS post FAT bug fixes			4Q				
OPMA: ongoing development for P3I; software		1Q-4Q	1Q-4Q	1Q-4Q			
OPMA: OASIS S/W requirements		3Q					
OPMA: ALMDS S/W requirements		1Q					
OPMA: ALMDS S/W		1Q-4Q					
OPMA: AMNS S/W		1Q-2Q					
OPMA: OASIS S/W			1Q-4Q	1Q-2Q			
OPMA: RAMICS S/W				1Q-4Q			
Develop CONOE for integrated MCM							
Incorporate DT/OT lessons learned into TACMEMO; Q20			1Q-4Q				
Incorporate DT/OT lessons learned into TACMEMO; AMNS			1Q-4Q				
Incorporate DT/OT lessons learned into TACMEMO; ALMDS			3Q-4Q	1Q-2Q			
Incorporate DT/OT lessons learned into TACMEMO; OASIS				1Q-4Q			
Incorporate DT/OT lessons learned into TACMEMO; RAMICS							
Reachback support, OAMCM		1Q-4Q	1Q-4Q	1Q-4Q			
Establish and update Gear & Mine database for OAMCM				1Q-4Q			
Tactics, techniques, & procedures for environmental survey							

CLASSIFICATION:		UNCLASSIFIED					
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION					DATE May 2009		
APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 5		PROGRAM ELEMENT NUMBER AND NAME 0604373N/AIRBORNE MCM			PROJECT NUMBER AND NAME 9179/Surf Navy Integ Undersea Tactical Tech		
COST (In Millions)	FY 2008	FY 2009	FY 2010				
Project Cost	0.550	0.666	0.959				
RDT&E Articles Qty	0	0	0				
A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:							
Surface Navy Integrated Undersea Tactical Technology (SNIUTT) will be used to develop an AN/SQQ-32, AN/AQS-14, AN/AQS-24, AN/AQS-20A and future OAMCM sensor training modules.							

CLASSIFICATION:		UNCLASSIFIED					
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION						DATE May 2009	
APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 5		PROGRAM ELEMENT NUMBER AND NAME 0604373N/AIRBORNE MCM			PROJECT NUMBER AND NAME 9179/Surf Navy Integ Undersea Tactical Tech		
B. ACCOMPLISHMENTS/PLANNED PROGRAM:							
				FY 2008	FY 2009	FY 2010	
Accomplishments/Effort/Subtotal Cost				0.460	0.552	0.830	
RDT&E Articles Quantity				0	0	0	
Development of an AN/SQQ-32, AN/AQS-14, AN/AQS-24 and AN/AQS-20A sensor training module. Also development of a Scenario Generator software system for REMUS for mine like contact recognition training and ALMDS sensor training modules.							
				FY 2008	FY 2009	FY 2010	
Accomplishments/Effort/Subtotal Cost				0.090	0.114	0.129	
RDT&E Articles Quantity				0	0	0	
SNIUTT In-Service Engineering Agent (ISEA) and development support is provided by Naval Surface Warfare Center, Panama City (NSWC PC).							
C. OTHER PROGRAM FUNDING SUMMARY:							
To Total							
Line Item No. and Name	FY 2008	FY 2009	FY 2010				Total Cost
OPN 4248, S0090, SNUITT	0.120	0.120	0.120				0.360
D. ACQUISITION STRATEGY:							
Surface Navy Integrated Undersea Tactical Technology (SNIUTT) has been used to develop an AN/SQQ-32, AN/AQS-14, AN/AQS-24 and AN/AQS-20A sensor training modules. Funds will continue to support training for these four sonar systems, as well as training for the REMUS sonar systems and other OAMCM systems in the same format as previous training. The SNIUTT sensor training modules will be developed by NSWC PC, Panama City, FL, in association with Advanced Acoustic Concepts (AAC), Ronkonkoma, NY. NSWC PC will contract with AAC for this work under a Cost Plus Fixed-Fee (CPFF) scenario. Funds are being provided for development and delivery of refresher scenario based contact recognition training, and the update and modification of contact recognition training (interactive web based training and proficiency focused stand-alone training) in support of the SNIUTT program.							
E. MAJOR PERFORMERS:							
Major performers are various contractors, and NSWC PC.							

CLASSIFICATION:		UNCLASSIFIED	
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION			DATE May 2009
APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 5	PROGRAM ELEMENT NUMBER AND NAME 0604373N/AIRBORNE MCM	PROJECT NUMBER AND NAME 9999/CONGRESSIONAL ADDS	
B. ACCOMPLISHMENTS/PLANNED PROGRAM:			
	FY 2008	FY 2009	FY 2010
Accomplishments/Effort/Subtotal Cost	2.317	1.995	0.000
RDT&E Articles Quantity	0	0	0
<p>Technology - In support of Airborne Mine Countermeasure (AMCM) systems, this initiative will provide open systems migration of unique military standard sensors, electronics, and software system components to lower cost/higher performance commercial equivalent capabilities. This effort will develop and accelerate an Open Architecture Multi-static Technology Insertion solution for the Navy's Airborne Mine Countermeasures Program. The anticipated result is lower cost/higher performance equivalent capabilities based on open architecture software and hardware components.</p>			