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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Navy **Date:** February 2016

Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy / BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0604373N / <i>Airborne Mine Countermeasures (AMCM)</i>
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COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	673.709	37.830	9.647	45.622	-	45.622	45.944	59.132	66.491	66.384	Continuing	Continuing
0529: <i>ABN Mine Hunt System</i>	311.416	14.931	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	326.347
2047: <i>ALMDS</i>	189.867	7.915	3.484	18.570	-	18.570	17.325	21.882	21.957	21.601	Continuing	Continuing
2473: <i>Airborne Mine Neutralization System</i>	142.602	7.270	4.521	13.903	-	13.903	15.995	26.865	33.902	33.919	Continuing	Continuing
4026: <i>Strat Into Medal, Tactics & Trng Organic Force</i>	24.885	6.858	1.642	11.786	-	11.786	11.363	9.458	9.682	9.892	Continuing	Continuing
9179: <i>Surf Navy Integ Undersea Tactical Tech</i>	4.939	0.856	0.000	1.363	-	1.363	1.261	0.927	0.950	0.972	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program element provides resources to develop advanced mine countermeasures equipment systems to counter known and projected mine threats. The mine countermeasures systems provide mobile, quick reaction forces capable of land or sea-based minehunting and minesweeping operations worldwide. Resources are for developing and deploying advanced mine-hunting and minesweeping systems and the intelligence and oceanographic capabilities that will enable mine warfare superiority. Tactics and techniques used vary across a diversity of environments and threats, including both asymmetric and emerging. Resources provide for systems and support of mine warfare systems, maritime systems, and expeditionary systems to allow for continuous operations of the Navy's warships and support vessels, other military vessels, and commercial vessels. Core capabilities include forward presence, deterrence, sea control, power projection, maritime security, humanitarian assistance and disaster response to maintain freedom of the seas. Capability improvements include conducting minefield reconnaissance (mine density and location) at high area search rates, improving detection capability, decreasing sensor false alarm rates, reducing or eliminating post-mission analysis detect, classify, identify, decide time, improving neutralization time, improving network communications, automatic target recognition, and achieving in-stride detect-to-engage capability. Concept of operations includes development of cooperative, unmanned, modular systems; the establishment of capable networked command and control systems; and standing up an accurate and interactive environmental system with the ability to form and disseminate a Common Environmental Picture. Other areas of importance include 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. Efforts benefit the MCM force by transforming the Navy from the platform-centered legacy set of systems to a capability-centered force that is distributed, networked, and able to provide unique maritime influence and access across the entire maritime domain.

The Airborne Mine Countermeasures (AMCM) programs will provide detection, classification, localization, identification, neutralization, and influence clearance capabilities. The "Next Generation" AMCM systems will provide capabilities to the Littoral Combat Ship (LCS) Mine Countermeasure Mission (MCM) Package. This capability will be of critical importance in littoral zones, confined straits, choke points, and the Amphibious Objective Area (AOA).

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B. Program Change Summary (\$ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	38.941	11.647	29.476	-	29.476
Current President's Budget	37.830	9.647	45.622	-	45.622
Total Adjustments	-1.111	-2.000	16.146	-	16.146
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-2.000			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.110	0.000			
• Program Adjustments	0.000	0.000	18.300	-	18.300
• Rate/Misc Adjustments	-0.001	0.000	-2.154	-	-2.154

Change Summary Explanation

Decrease in Airborne Mine Countermeasures by \$1.2 million as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015.

Program Adjustments:

FY15 -\$1,111K Total Adjustments: -1,110K in SBIR adjustment, -\$1K in miscellaneous adjustments.

FY16 -\$2,000K Total Adjustments: -\$1,400K AMNS reduction, \$600K ALMDS reduction

FY17 +\$16,146K Total Adjustments: +10,300K ALMDS P3I, and +\$8,000K AMNS Near Surface Neutralization Capability and -\$2,154K miscellaneous adjustments.

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy										Date: February 2016		
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0604373N / Airborne Mine Countermeasures (AMCM)				Project (Number/Name) 0529 / ABN Mine Hunt System			
COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
0529: ABN Mine Hunt System	311.416	14.931	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	326.347
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

Note

*AN/AQS-20A Program is realigned to 0603502N, Project Unit 0530 beginning in FY17

A. Mission Description and Budget Item Justification

This project contains resources for systems, subsystems, and sensors integrated for use with multiple platforms for mine detection, classification, localization, identification, neutralization, and influence clearance capabilities. Research, development, test, and evaluation efforts are for increasing capability by decreasing time required to conduct Mine Countermeasures (MCM) operations, ensuring low risk to naval and commercial vessels, and removing the man from the minefield. Increased capability includes conducting minefield reconnaissance (mine density and location) at high area search rates, improving detection capability, decreasing sensor false alarm rates, and reducing post-mission analysis for detection, classification, identification, and neutralization.

The AN/AQS-20A is a mine hunting and identification system with acoustic and optic sensors housed in an underwater towed body. The acoustic sensors are designed for the detection, classification and localization of bottom, close-tethered, and volume targets in a single pass. The Electro-Optic Identification Device (EOID) replaces the Volume Search Sonar (VSS) for identification of bottom targets. The system will be deployed from the Littoral Combat Ship (LCS) as part of the MCM Mission Package (MP). The AN/WLD-1(V)2 Remote Minehunting System (RMS) Remote Multi-Mission Vehicle (RMMV) tows the AN/AQS-20A.

The AN/AQS-20A Block 1 is undergoing a Pre-Planned Product Improvement (P3I) program to upgrade the Forward Looking Sonar (FLS) and Side-Looking Sonars (SLS) to improve Probability of Classifying a Mine-like object as a Mine, False Classification, and Depth Localization performance to meet Block 2 performance. The Forward Looking Sonar will be replaced with a new High Frequency Wideband design. The SLS will be replaced with a new Multi-function SLS with Synthetic Aperture Sonar (SAS) capability, as well as, improved signal processing and Signal to Noise Ratio. The Block 1 P3I program began in FY12 and will complete in FY16. Award and management for Block 2 production units began in FY14. Materiel Reliability, obsolescence, and performance Engineering Change Proposal (ECP) efforts continue beyond FY21.

The AN/AQS-24 Mine Hunting and Identification system is comprised of acoustic sensors housed in an underwater towed body. The AN/AQS-24 Volume Search upgrade will be developed, tested, and integrated for use with multiple platforms including the MH-53E Helicopter. This capability is in support of an Urgent Operational Need (UON) and will improve the rapid detection and localization of volume sea mines.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: AN/AQS-20A Product Development:	7.972	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604373N / Airborne Mine Countermeasures (AMCM)	Project (Number/Name) 0529 / ABN Mine Hunt System

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
<p>FY 2015 Accomplishments: - Participated in RMS (RMMV v6.0 and AN/AQS-20A) Developmental and Integrated Testing. - Supported LCS MCM MP TECHEVAL and IOT&E.</p> <p>FY 2016 Plans: -Realigned to Program Element 0603502N.</p> <p>FY 2017 Base Plans: N/A</p> <p>FY 2017 OCO Plans: N/A</p>					
<p>Title: AN/AQS-20A Management Services</p> <p align="right">Articles:</p> <p>Description: RDT&E Articles Quantity</p> <p>FY 2015 Accomplishments: - Continued to provide planning and management for the AN/AQS-20A program to include the competitive contract. - Updated acquisition documentation such as the Acquisition Strategy and Plan in support of procuring Block 1 P3I kits and follow-on maintenance, and support. - Provided Program Office travel support.</p> <p>FY 2016 Plans: -Realigned to Program Element 0603502N.</p> <p>FY 2017 Base Plans: N/A</p> <p>FY 2017 OCO Plans: N/A</p>	1.320	0.000	0.000	0.000	0.000
	-	-	-	-	-
Accomplishments/Planned Programs Subtotals	14.931	0.000	0.000	0.000	0.000

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C. Other Program Funding Summary (\$ in Millions)

Line Item	FY 2015	FY 2016	FY 2017	FY 2017	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Cost To	
			Base	OCO	Total					Complete	Total Cost
• OPN 4248: Aviation Mine Countermeasures	23.152	14.098	29.097	-	29.097	24.491	8.362	5.004	5.104	0.003	521.528
• OPN 1601: LCS MCM Mission Modules	15.270	67.451	57.146	-	57.146	161.605	197.738	103.496	203.284	1,002.735	1,875.439
• RDT&E 0603502N: Surface & Shallow Water MCM	83.793	90.472	165.775	-	165.775	157.821	184.838	212.970	222.095	Continuing	Continuing

Remarks

D. Acquisition Strategy

AN/AQS-20A LRIP procurement continues following Block 2 competitive contract award in FY14. FRPDR will occur in third quarter FY18. Procure P3I kits to upgrade Block 1 units to meet Block 2 capability.

AN/AQS-24C upgrade kits capability will integrate and test the improved volume search sonar.

E. Performance Metrics

AN/AQS-20A - Successfully support LCS MCM MP in FY15.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy												Date: February 2016			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
1319 / 5				PE 0604373N / Airborne Mine Countermeasures (AMCM)				0529 / ABN Mine Hunt System							
Product Development (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
AN/AQS-20A Hardware/ Software Development Q-20 on the H-53	SS/CPPIF	Raytheon : Portsmouth, RI	31.120	0.000		0.000		0.000		-		0.000	0.000	31.120	-
AN/AQS-20A Hardware/ Software Development Q-20A on the H-60	C/CPFF	Raytheon : Portsmouth, RI	60.150	0.000		0.000		0.000		-		0.000	0.000	60.150	-
AN/AQS-20A Hardware/ Software Development	WR	NSWC, PC : Panama City FL	14.251	0.000		0.000		0.000		-		0.000	0.000	14.251	-
AN/AQS-20A Hardware/ Software Development	C/FP	Northrop Grumman : Melbourne, FL	4.572	0.000		0.000		0.000		-		0.000	0.000	4.572	-
AN/AQS-20A P3I	C/CPFF	Raytheon : Portsmouth, RI	26.704	5.846	Nov 2014	0.000		0.000		-		0.000	0.000	32.550	-
AN/AQS-20A P3I	C/CPFF	ARL/UT : Austin, TX	10.425	0.450	Dec 2014	0.000		0.000		-		0.000	0.000	10.875	-
AN/AQS-20A P3I	WR	NSWC, PC : Panama City FL	4.817	0.476	Nov 2014	0.000		0.000		-		0.000	0.000	5.293	-
AN/AQS-24 Hardware/ Software Development	C/CPPIF	Northrop Grumman : Annapolis, MD	6.072	0.000		0.000		0.000		-		0.000	0.000	6.072	-
AN/AQS-24 Hardware/ Software Development	C/CPFF	ARL/UT : Austin, TX	4.191	0.000		0.000		0.000		-		0.000	0.000	4.191	-
AN/AQS-24 Hardware/ Software Development	WR	NSWC, PC : Panama City, FL	0.528	0.000		0.000		0.000		-		0.000	0.000	0.528	-
AN/AQS-20A Materiel Reliability ECP Development	C/CPFF	Raytheon : Portsmouth, RI	2.075	1.000	Nov 2014	0.000		0.000		-		0.000	0.000	3.075	-
AN/AQS-20A P3I	WR	Naval Research Lab : Stennis Space Center, MS	0.352	0.200	Nov 2014	0.000		0.000		-		0.000	0.000	0.552	-
Subtotal			165.257	7.972		0.000		0.000		-		0.000	0.000	173.229	-

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Support (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
AN/AQS-20A Engineering Services	WR	NSWC, PC : Panama City, FL	33.170	2.100	Nov 2014	0.000		0.000		-		0.000	0.000	35.270	-
AN/AQS-20A Engineering Services	C/CPFF	Raytheon : Portsmouth, RI	3.686	0.000		0.000		0.000		-		0.000	0.000	3.686	-
AN/AQS-20A Engineering Services	Various	Various : Various	54.018	0.000		0.000		0.000		-		0.000	0.000	54.018	-
AN/AQS-20A Engineering Services 2	SS/CPIF	Raytheon : Portsmouth, RI	3.464	0.000		0.000		0.000		-		0.000	0.000	3.464	-
AN/AQS-20A ILS Function	WR	NSWC, PC : Panama City FL	6.846	0.000		0.000		0.000		-		0.000	0.000	6.846	-
AN/AQS-20A ILS Function	SS/CPIF	Raytheon : Portsmouth, RI	1.546	0.000		0.000		0.000		-		0.000	0.000	1.546	-
AN/AQS-20A ILS Function	Various	Various : Various	0.981	0.000		0.000		0.000		-		0.000	0.000	0.981	-
AN/AQS-20A Engineering Services	WR	NSWC/CD : Carderock, MD	0.500	0.000		0.000		0.000		-		0.000	0.000	0.500	-
AN/AQS-24 Engineering Services/ILS Functions	C/CPIF	Northrop Grumman : Annapolis, MD	0.250	0.000		0.000		0.000		-		0.000	0.000	0.250	-
AN/AQS-24 Engineering Services/ILS Functions	C/CPFF	ARL/UT : Austin, TX	0.741	0.000		0.000		0.000		-		0.000	0.000	0.741	-
AN/AQS-24 Engineering Services/ILS Functions	WR	NSWC, PC : Panama City, FL	0.560	0.000		0.000		0.000		-		0.000	0.000	0.560	-
Subtotal			105.762	2.100		0.000		0.000		-		0.000	0.000	107.862	-

Test and Evaluation (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
AN/AQS-20A T&E Functions	WR	COTF : Norfolk, VA	0.200	0.000		0.000		0.000		-		0.000	0.000	0.200	-
AN/AQS-20A T&E Functions	WR	NSWC, PC : Panama City FL	21.221	3.239	Nov 2014	0.000		0.000		-		0.000	0.000	24.460	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy **Date:** February 2016

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604373N / Airborne Mine Countermeasures (AMCM)	Project (Number/Name) 0529 / ABN Mine Hunt System
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Test and Evaluation (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
AN/AQS-20A T&E Functions	C/CPFF	Raytheon : Portsmouth, RI	4.434	0.200	Nov 2014	0.000		0.000		-		0.000	0.000	4.634	-
AN/AQS-20A T&E Functions	Various	Various : Various	1.583	0.000		0.000		0.000		-		0.000	0.000	1.583	-
AN/AQS-24 T&E Functions	WR	NSWC, PC : Panama City, FL	1.700	0.000		0.000		0.000		-		0.000	0.000	1.700	-
AN/AQS-24 T&E Functions	WR	NAVAIR : Pax River, MD	0.290	0.000		0.000		0.000		-		0.000	0.000	0.290	-
AN/AQS-24 T&E Functions	WR	COTF : Norfolk, VA	1.600	0.000		0.000		0.000		-		0.000	0.000	1.600	-
AN/AQS-24 T&E Functions	C/CPIF	Northrop Grumman : Annapolis, MD	1.000	0.000		0.000		0.000		-		0.000	0.000	1.000	-
AN/AQS-24 T&E Functions	C/CPFF	ARL/UT : Austin, TX	0.500	0.000		0.000		0.000		-		0.000	0.000	0.500	-
AN/AQS-20A T&E Functions	C/CPFF	ARL/UT : Austin, TX	0.000	0.100	Dec 2014	0.000		0.000		-		0.000	0.000	0.100	-
Subtotal			32.528	3.539		0.000		0.000		-		0.000	0.000	36.067	-

Remarks
COFT - Naval Command Operational Test and Evaluation Force

Management Services (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
AN/AQS-20A Management Services	TBD	Various : Various	6.980	1.280	Dec 2014	0.000		0.000		-		0.000	0.000	8.260	-
AN/AQS-20A Travel	TBD	Various : Various	0.627	0.040	Jan 2015	0.000		0.000		-		0.000	0.000	0.667	-
AN/AQS-20A Acquisition Workforce Fund	Various	Various : Various	0.012	0.000		0.000		0.000		-		0.000	0.000	0.012	-
AN/AQS-24 Program Management	WR	NSWC, PC : Panama City, FL	0.250	0.000		0.000		0.000		-		0.000	0.000	0.250	-
Need Item Text	C/BA	Not Specified : Not Specified	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 Navy **Date:** February 2016

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604373N / Airborne Mine Countermeasures (AMCM)	Project (Number/Name) 0529 / ABN Mine Hunt System
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Proj 0529	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
AN/AQS-20A Development Phase	AN/AQS-20A Block 1 P3I																											
	Block 1 & 2 ECP Development																											
AN/AQS-20A Test & Evaluation Milestones	LCS MCM MP DT Phase IV Period 2		LCS MCM MP TECHEVAL																									
	RMS v6.0 CT/DT/IT																											
AN/AQS-20A Production Milestones	AN/AQS-20A Low Rate Initial Production (LRIP)																											
	Block 2 LRIPs (1 Unit) ▲																											

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604373N / Airborne Mine Countermeasures (AMCM)	Project (Number/Name) 0529 / ABN Mine Hunt System

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 0529				
AN/AQS-20A Development Phase: AN/AQS-20A Block 1 P3I	1	2015	4	2015
AN/AQS-20A Development Phase: AN/AQS-20A Materiel Reliability, Obsolesence, and Performance ECP Development (Block 1 & 2)	1	2015	4	2015
AN/AQS-20A Test & Evaluation Milestones: LCS MCM MP Test Events DT Phase IV Period 2	1	2015	2	2015
AN/AQS-20A Test & Evaluation Milestones: LCS MCM MP Test Evetns TECHEVAL	3	2015	3	2015
AN/AQS-20A Test & Evaluation Milestones: RMS version 6.0 Contractor Testing (CT)/ Developmental Test (DT)/Integrated Test (IT)	1	2015	2	2015
AN/AQS-20A Production Milestones: AN/AQS-20A Low Rate Initial Production (LRIP): AN/AQS-20A Block 2 Low Rate Initial Production (LRIP) Option 1 Award (1 Unit)	1	2015	1	2015
AN-AQS 24				
Contracting Strategy: Q-24B ECP Contract: Q-24B Contract Award	3	2015	3	2015
Contracting Strategy: Q-24C Contract: Q-24C Contract Award	1	2015	1	2015
Contracting Strategy: Q-24C Contract: Production Award	2	2017	2	2017
Decision Reviews: Decisions: Preliminary Design Review	2	2015	2	2015
Decision Reviews: Decisions: Critical Design Review	3	2015	3	2015
Decision Reviews: Decisions: Test Readiness Review	3	2015	3	2015
Test and Evaluation: Testing: Testing	3	2015	4	2015
Sytem Deliveries and Installs: Engineering Development Model Delivery: Engineering Development Model Delivery	2	2015	4	2015
Sytem Deliveries and Installs: Q-24 B Production: B Kit Production	1	2015	4	2015
Sytem Deliveries and Installs: Q-24 B Production: B Kit Deliveries & Integration	4	2015	4	2016

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 Navy **Date:** February 2016

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604373N / <i>Airborne Mine Countermeasures (AMCM)</i>	Project (Number/Name) 0529 / <i>ABN Mine Hunt System</i>
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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Sytem Deliveries and Installs: Q-24 C Production: C Kit Production	2	2017	2	2018
Sytem Deliveries and Installs: Q-24 C Production: C Kit Deliveries & Integration	2	2018	2	2019

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy **Date:** February 2016

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604373N / Airborne Mine Countermeasures (AMCM)	Project (Number/Name) 2047 / ALMDS
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COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
2047: ALMDS	189.867	7.915	3.484	18.570	-	18.570	17.325	21.882	21.957	21.601	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

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 near-surface moored sea mines. The system is deployed from the MH-60S helicopter and will provide Organic Airborne Mine Countermeasures (OAMCM) defense to the battle force. The system represents a capability that does not exist in the current Mine Countermeasures (MCM) inventory.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: Hardware and Software technology development and demonstration/Engineering Services:	4.357	1.704	17.297	0.000	17.297
Articles:	-	-	-	-	-
Description: Engineering, oversight, and support of engineering efforts to meet baseline performance and P3I performance.					
FY 2015 Accomplishments: Provided LCS Independence MCM Test support. Continued to provide engineering services, pod repair, and maintenance. Continued P3I development (False Alarm Algorithms, false classification density, dual slope, laser tail, laser pulse width and VSW).					
FY 2016 Plans: Continue to provide engineering services, pod repair, and maintenance.					
FY 2017 Base Plans: Continue to provide engineering services, pod repair, and maintenance. Continue full rate production. Conduct P3I development- develop laser and diverger improvements, produce ECS controller redesign, false alarm mitigation development, rearchitect FPGA and continue the development of incremental software builds. Complete coding and pre-delivery testing of software Build 6010. Conduct Government acceptance testing of Build 6010 to verify successful code port of algorithms from power PC into FPGA's. Develop algorithms, write code and investigate software Build 6020 during FY17. Start the transition of Compact Modular Sensor Suite					

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy			Date: February 2016		
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604373N / Airborne Mine Countermeasures (AMCM)	Project (Number/Name) 2047 / ALMDS			
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)					
(CMSS) technologies for ALMDS (specification development and contract materials preparation). Start CMSS requirements analysis, system requirements review, and system functional review.					
FY 2017 OCO Plans: N/A					
Title: Integrated Logistics Support:					
Articles:					
	0.834	0.595	1.031	0.000	1.031
	-	-	-	-	-
FY 2015 Accomplishments: Provided logistics support, depot analysis to LRIP units, LCS MCM MP support and FR PDR preparation.					
FY 2016 Plans: Provide logistics support, depot analysis to LRIP units, IOC for LCS Independence variant, and FR PDR support for LCS MCM Independence variant.					
FY 2017 Base Plans: Provide logistics support, depot analysis to LRIP units, IOC for LCS Independence variant and FR PDR support. Provide logistics support and documentation for CMSS requirements analysis, system requirements review, system functional review, specification development and contract material preparation.					
FY 2017 OCO Plans: N/A					
Title: Testing and Evaluation:					
Articles:					
	1.745	0.602	0.000	0.000	0.000
	-	-	-	-	-
FY 2015 Accomplishments: Completed EQT, OA phase B, DT phase 4 period 2, and support Mine Countermeasures (MCM) Mission Package (MP) IOT&E.					
FY 2016 Plans: ALMDS Test reports and ALMDS upgrade testing. Conduct FOT&E of LCS Mine Countermeasures (MCM) Mission Package (MP) Independence variant.					
FY 2017 Base Plans: N/A					
FY 2017 OCO Plans:					

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604373N / Airborne Mine Countermeasures (AMCM)	Project (Number/Name) 2047 / ALMDS

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
N/A					
Title: Project Management: Description: Completion of OA FY 2015 Accomplishments: Program management, financial management and contractor support. FY 2016 Plans: Program management, financial management and contractor support. FY 2017 Base Plans: Program management, financial management and contractor support. FY 2017 OCO Plans: N/A	0.979	0.583	0.242	0.000	0.242
Articles:	-	-	-	-	-
Accomplishments/Planned Programs Subtotals	7.915	3.484	18.570	0.000	18.570

C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• OPN 4248: Aviation Mine Countermeasures	23.152	14.098	29.097	-	29.097	24.491	8.362	5.004	5.104	0.003	521.528
• OPN 1601: LCS MCM Mission Modules	15.270	67.451	57.146	-	57.146	161.605	197.738	103.496	203.284	1,002.735	1,875.439

Remarks

D. Acquisition Strategy
 The program entered Production and Development Acquisition Phase following MS C in May 2005. August 2007 program authorized to meet full performance in two increments. The first LRIP lot was awarded as a new sole-source contract to the SD&D contractor in FY05. FRP will be based on Increment 1 performance. In FY14 a new competitive FFP production contract was awarded. This is a Fixed-Price Incentive (FPI) contract with cost and schedule incentives.

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604373N / <i>Airborne Mine Countermeasures (AMCM)</i>	Project (Number/Name) 2047 / <i>ALMDS</i>

E. Performance Metrics

Conducted Operational Assessment (OA) Phase A in FY12. Conducted OA Phase B, Environmental Qualification Test (EQT), and Equipment Qualifications Test in FY14. Completed OA Phase B and DT phase 4 period 2 in FY14/15.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy **Date:** February 2016

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604373N / Airborne Mine Countermeasures (AMCM)	Project (Number/Name) 2047 / ALMDS
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Product Development (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Hardware/Software Development	WR	NSWC PC : Panama City FL	2.900	0.302	Nov 2014	0.111	Nov 2015	0.057	Nov 2016	-		0.057	0.000	3.370	-
Hardware/Software Development	C/CPAF	Northrop Grumman : Melbourne, FL	41.023	0.200	Nov 2014	0.000	Nov 2015	2.922	Nov 2016	-		2.922	0.000	44.145	-
Hardware/Software Development	WR	NUWC NPT : VA	1.461	0.453	Nov 2014	0.000	Nov 2015	0.378	Nov 2016	-		0.378	0.000	2.292	-
Hardware/Software Development	WR	NSWC IH : MD	0.785	0.374	Nov 2014	0.000		0.000		-		0.000	0.000	1.159	-
Engineering Services1	WR	NSWC PC : Panama City FL	18.137	1.501	Nov 2014	0.400	Nov 2015	4.706	Nov 2016	-		4.706	Continuing	Continuing	Continuing
Engineering Services2	C/CPAF	Northrop Grumman : Melbourne, FI	25.728	0.161	Nov 2014	0.250	Nov 2015	0.607	Nov 2016	-		0.607	0.000	26.746	-
Engineering Services3	WR	NUWC NPT : VA	20.122	0.661	Nov 2014	0.348	Nov 2015	4.704	Nov 2016	-		4.704	Continuing	Continuing	Continuing
Engineering Services4	MIPR	Various : Various	5.422	0.344	Nov 2014	0.318	Nov 2015	2.324	Nov 2016	-		2.324	Continuing	Continuing	Continuing
Engineering Services5	MIPR	various : Various	2.574	0.361	Nov 2014	0.277	Nov 2015	1.599	Nov 2016	-		1.599	0.000	4.811	-
Subtotal			118.152	4.357		1.704		17.297		-		17.297	-	-	-

Support (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
ILS Functions1	WR	NSWC PC : Panama City FL	4.765	0.634	Nov 2014	0.395	Nov 2015	0.346	Nov 2016	-		0.346	Continuing	Continuing	Continuing
ILS Functions2	WR	Northrop Grumman : Melbourne FL	7.886	0.200	Nov 2014	0.200	Nov 2015	0.685	Nov 2016	-		0.685	Continuing	Continuing	Continuing
ILS Functions3	C/CPAF	Various/NRL Stennis : Various	1.062	0.000		0.000		0.000		-		0.000	0.000	1.062	-
ILS Functions4	WR	NSWC PC : Panama City FL	0.300	0.000		0.000		0.000		-		0.000	0.000	0.300	-
Subtotal			14.013	0.834		0.595		1.031		-		1.031	-	-	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy **Date:** February 2016

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604373N / Airborne Mine Countermeasures (AMCM)	Project (Number/Name) 2047 / ALMDS
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Test and Evaluation (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Testing and Evaluation1	C/CPAF	Northrop Grumman : Melbourne FL	17.454	0.150	Nov 2014	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Testing and Evaluation2	WR	NSWC PC : Panama City FL	23.765	1.595	Nov 2014	0.602	Nov 2015	0.000		-		0.000	Continuing	Continuing	Continuing
Testing and Evaluation	C/CPAF	Various : Various	3.084	0.000		0.000		0.000		-		0.000	0.000	3.084	-
Testing and Evaluation	WR	NAWC AD PAX : Panama City FL	2.110	0.000		0.000		0.000		-		0.000	0.000	2.110	-
Subtotal			46.413	1.745		0.602		0.000		-		0.000	-	-	-

Management Services (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Management Support1	C/CPAF	NGC : Various	2.433	0.100	Nov 2014	0.265	Nov 2015	0.000		-		0.000	0.000	2.798	-
Management Support2	WR	NSWC PC : Panama City FL	5.994	0.879	Nov 2014	0.318	Nov 2015	0.242	Nov 2016	-		0.242	0.000	7.433	-
Management Support3	WR	ARINC : Panama City FL	2.782	0.000		0.000		0.000		-		0.000	0.000	2.782	-
DAWDF	Various	Various : Various	0.080	0.000		0.000		0.000		-		0.000	0.000	0.080	-
Subtotal			11.289	0.979		0.583		0.242		-		0.242	0.000	13.093	-

	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals		189.867	7.915	3.484	18.570	-	-	-	-

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 Navy **Date:** February 2016

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604373N / Airborne Mine Countermeasures (AMCM)	Project (Number/Name) 2047 / ALMDS
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ALMDS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Acquisition Milestones																												
Initial Operating Capability																												
System Development																												
Increment I Development	Increment I P3I Upgrade Development																											
Transition of Compact Modular Sensor Suite (CMSS) Technologies	Non-recurring Engineering for ECP's																											
Preliminary Design Review	CMSS Functional Analysis																											
Critical Design Review	CMSS Spec/Materials Development																											
	PDR ▲																											
	CDR ▲																											
	CMSS Design & Reviews																											
	CMSS Fabrication and Component Validation																											
Test & Evaluation Milestones																												
DT Development Testing	MCM DT Ph 4 Pd 2																											
	DT EQT																											
	P3I Flight Test																											
	P3I Flight Test Phase 2																											
	OA Phase B																											
	LCS Independence Class DT																											
	P3I Lab Ground Test																											
	P3I DT/IT (FOT&E)																											
Production Milestones																												
	LRIP #5 ▲																											

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 Navy	Date: February 2016
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Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604373N / <i>Airborne Mine Countermeasures (AMCM)</i>	Project (Number/Name) 2047 / <i>ALMDS</i>
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Production Deliveries	LRIP #5	
<i>2017PB - 0604373N - 2047</i>		

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604373N / <i>Airborne Mine Countermeasures (AMCM)</i>	Project (Number/Name) 2047 / <i>ALMDS</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
ALMDS				
Acquisition Milestones: Initial Operating Capability: Initial Operating Capability Independence Class	4	2016	4	2016
Acquisition Milestones: Initial Operating Capability: Initial Operating Capability P3I	4	2021	4	2021
System Development: Increment I Development: Increment I P3I Upgrade Development	1	2015	4	2019
System Development: Increment I Development: Non-recurring Engineering for ECP's	1	2015	4	2018
System Development: Transition of Compact Modular Sensor Suite (CMSS) Technologies: Compact Modular Sensor Suite (CMSS) Functional Analysis	1	2017	1	2018
System Development: Transition of Compact Modular Sensor Suite (CMSS) Technologies: CMSS Spec/Materials Development	3	2017	4	2018
System Development: Preliminary Design Review: Preliminary Design Review	3	2019	3	2019
System Development: Critical Design Review: Critical Design Review	4	2019	4	2019
System Development: Critical Design Review: CMSS Design & Reviews	1	2019	4	2019
System Development: Critical Design Review: CMSS Fabrication and Component Validation	1	2020	1	2021
Test & Evaluation Milestones: DT Development Testing: MCM DT PH 4 Period 2	1	2015	1	2015
Test & Evaluation Milestones: DT Development Testing: DT Environmental Qualification Testing (EQT)	1	2015	1	2015
Test & Evaluation Milestones: DT Development Testing: P3I Flight Test 1	1	2015	1	2015
Test & Evaluation Milestones: DT Development Testing: P3I Flight Test Phase 2	4	2015	4	2015
Test & Evaluation Milestones: DT Development Testing: OA Phase B	1	2015	1	2015
Test & Evaluation Milestones: DT Development Testing: P3I Lab Ground Test	1	2020	1	2020
Test & Evaluation Milestones: DT Development Testing: LCS DT	2	2015	3	2015

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 Navy **Date:** February 2016

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604373N / <i>Airborne Mine Countermeasures (AMCM)</i>	Project (Number/Name) 2047 / <i>ALMDS</i>
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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Test & Evaluation Milestones: DT Development Testing: P3I DT/IT (FOT&E)	1	2021	3	2021
Production Milestones: LRIP 5 Units start	1	2015	1	2015
Production Deliveries: LRIP 5 Units Deliveries	1	2017	3	2017

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy										Date: February 2016		
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0604373N / Airborne Mine Countermeasures (AMCM)				Project (Number/Name) 2473 / Airborne Mine Neutralization System			
COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
2473: Airborne Mine Neutralization System	142.602	7.270	4.521	13.903	-	13.903	15.995	26.865	33.902	33.919	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Airborne Mine Neutralization System (AMNS) is a mine neutralization system, deployed from the MH-60S and MH-53E helicopters using an expendable mine neutralization device.

The AMNS (Archerfish) will be deployed from the MH-60S helicopter with the capability to neutralize bottom and moored mines using an expendable mine neutralization device. These systems will be deployed from the Littoral Combat Ship and will provide organic airborne mine neutralization capability 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). Improved AMNS (iAMNS/Barracuda) provides an expendable, reacquisition, identification and neutralization capability against bottom, moored and Near Surface sea mines. iAMNS/Barracuda is deployed from both MH-60S multi mission helicopters and Unmanned Surface Vehicles (USV), or any craft of opportunity, using existing common communications, command & control and launching equipment. iAMNS/Barracuda will field a baseline capability derived from the single sortie detect to engage (SS-DTE) future naval capabilities (FNC) effort. iAMNS/Barracuda addresses unmet requirements in near surface neutralization created with the cancellation of the RAMICS program in FY13. With baseline upgrades the system is suitable for mine neutralization in the full water column.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: AMNS: Development/Engineering Support	3.124	3.134	5.488	0.000	5.488
Articles:	-	-	-	-	-
FY 2015 Accomplishments: Provided engineering support, including review for product development and integration. Developed logistics products, including training materials and interactive technical manuals.					
FY 2016 Plans: Provide engineering support, including review for product development and integration. Develop logistics products, including training materials and interactive technical manuals.					
FY 2017 Base Plans:					

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604373N / Airborne Mine Countermeasures (AMCM)	Project (Number/Name) 2473 / Airborne Mine Neutralization System

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Provide engineering support, including review for product development and integration. Develop logistics products, including training materials and interactive technical manuals. Provide engineering support for upgrade development and develop associated logistics products. FY 2017 OCO Plans: N/A					
Title: AMNS: Test and Evaluation Articles:	3.000 -	0.725 -	0.500 -	0.000 -	0.500 -
FY 2015 Accomplishments: Completed OA Phase B. Supported MCM Technical Evaluation of AMNS. FY 2016 Plans: Conduct FOT&E of LCS Mine Countermeasures (MCM) Mission Package (MP). FY 2017 Base Plans: Conduct AMNS P3I/ECP upgrades tests FY 2017 OCO Plans: N/A					
Title: AMNS: Management Services Articles:	1.146 -	0.662 -	0.305 -	0.000 -	0.305 -
FY 2015 Accomplishments: Provided program management support, contract management and travel for AMNS. FY 2016 Plans: Provide program management support, contract management and travel for AMNS. FY 2017 Base Plans: Provide program management support, contract management and travel for AMNS. FY 2017 OCO Plans: N/A					
Title: iAMNS/Barracuda: Product Development Articles:	0.000 -	0.000 -	5.703 -	0.000 -	5.703 -
FY 2015 Accomplishments:					

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604373N / Airborne Mine Countermeasures (AMCM)	Project (Number/Name) 2473 / Airborne Mine Neutralization System

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
N/A FY 2016 Plans: N/A FY 2017 Base Plans: Design and develop improved AMNS (iAMNS) providing identification and neutralization capability against bottom, moored and drifting sea mines. Develop and release RFP, conduct source selection and complete contract award. Develop Milestone B and PDR documentation. FY 2017 OCO Plans: N/A					
Title: iAMNS/Barracuda: Engineering Support Articles:	0.000 -	0.000 -	1.261 -	0.000 -	1.261 -
FY 2015 Accomplishments: N/A FY 2016 Plans: N/A FY 2017 Base Plans: Develop the CONOPS, conduct risk reduction prototyping, tactics analyses, and general systems engineering support. FY 2017 OCO Plans: N/A					
Title: iAMNS/Barracuda: Management Services Articles:	0.000 -	0.000 -	0.646 -	0.000 -	0.646 -
FY 2015 Accomplishments: N/A FY 2016 Plans: N/A FY 2017 Base Plans:					

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604373N / Airborne Mine Countermeasures (AMCM)	Project (Number/Name) 2473 / Airborne Mine Neutralization System

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Provide program management, financial management, and engineering support.					
FY 2017 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	7.270	4.521	13.903	0.000	13.903

C. Other Program Funding Summary (\$ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• OPN 4248: Aviation Mine Countermeasures	23.152	14.098	29.097	-	29.097	24.491	8.362	5.004	5.104	0.003	521.528
• WPN 4225: Airborne Mine Neutralization Systems	15.006	7.766	15.753	-	15.753	16.881	17.719	12.223	12.465	0.001	195.550
• OPN 1601: LCS MCM Mission Modules	15.270	67.451	57.146	-	57.146	161.605	197.738	103.496	203.284	1,002.735	1,875.439

Remarks

D. Acquisition Strategy

AMNS: The Navy has successful completion of Developmental Testing (Inert) on MH-60S, and is conducting Tests on LCS with the MH-60S. The Navy has awarded a sole source contract to BAE for neutralizer procurements (WPN) to accompany the Launch and Handling Systems (LHS).

iAMNS/Barracuda: Field the baseline system to address near surface portion of water column. Develop block upgrades to follow for deeper parts of the water column and develop software upgrades to baseline system.

E. Performance Metrics

Successfully completion of Testing and receive IOC.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy **Date:** February 2016

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604373N / Airborne Mine Countermeasures (AMCM)	Project (Number/Name) 2473 / Airborne Mine Neutralization System
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Product Development (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Hardware/Software Development	Various	Various : Various	3.359	0.000		0.000		0.000		-		0.000	0.000	3.359	-
Hardware/Software Development	WR	NSWC PC : Panama City, FL	7.106	1.256	Nov 2014	1.266	Nov 2015	2.315	Nov 2016	-		2.315	1.322	13.265	-
Hardware/Software Development	C/CPIAF	Raytheon : Portsmouth, RI	24.819	1.868	Nov 2014	1.868	Nov 2015	3.173	Nov 2016	-		3.173	1.587	33.315	-
Hardware/Software Development	SS/CPIF	Lockheed Martin : Syracuse, NY	3.331	0.000		0.000		0.000		-		0.000	0.000	3.331	-
Barracuda Hardware/ Software Development	WR	NSWC PC : Panama City, FL	0.000	0.000		0.000		2.813	Nov 2016	-		2.813	Continuing	Continuing	Continuing
Barracuda Hardware/ Software Development	WR	NSWC PC : Indian Head, MD	0.000	0.000		0.000		1.368	Nov 2016	-		1.368	Continuing	Continuing	Continuing
Barracuda Hardware/ Software Development	C/CPIF	JHU APL : Baltimore, MD	0.000	0.000		0.000		1.522	Nov 2016	-		1.522	Continuing	Continuing	Continuing
(Near Surface) Hardware/ Software Development	WR	NUWC, NPT : Newport, RI	6.691	0.000		0.000		0.000		-		0.000	0.000	6.691	-
(Near Surface) Hardware/ Software Development	C/CPIF	Raytheon : Portsmouth, RI	4.033	0.000		0.000		0.000		-		0.000	0.000	4.033	-
Subtotal			49.339	3.124		3.134		11.191		-		11.191	-	-	-

Support (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Barracuda Engineering Support	WR	NUWC NPT : Newport RI	0.000	0.000		0.000		0.464	Nov 2016	-		0.464	0.000	0.464	-
Barracuda Engineering Services	C/CPIF	JHU APL : Baltimore, MD	0.000	0.000		0.000		0.300	Nov 2016	-		0.300	0.000	0.300	-
Barracuda T&E Support	WR	NUWC NPT : Newport RI	0.000	0.000		0.000		0.200	Nov 2016	-		0.200	0.000	0.200	-
Barracuda T&E Support	WR	NSWC IH : Indian Head, MD	0.000	0.000		0.000		0.297	Nov 2016	-		0.297	0.000	0.297	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy **Date:** February 2016

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604373N / Airborne Mine Countermeasures (AMCM)	Project (Number/Name) 2473 / Airborne Mine Neutralization System
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Support (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Subtotal			0.000	0.000		0.000		1.261		-		1.261	0.000	1.261	-

Test and Evaluation (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Development Test & Evaluation	SS/CPFF	Lockheed Martin : Syracuse, NY	1.254	0.000		0.000		0.000		-		0.000	0.000	1.254	-
Operational Test & Evaluation	SS/CPFF	Lockheed Martin : Syracuse, NY	0.767	0.000		0.000		0.000		-		0.000	0.000	0.767	-
Test Assets	C/CPIF	Raytheon : Portsmouth, RI	3.310	0.000		0.000		0.000		-		0.000	0.000	3.310	-
(AMNS) Development Test & Evaluation	WR	NSWC, PC : Panama City, FL	38.166	0.000		0.000		0.125	Nov 2016	-		0.125	0.000	38.291	-
(AMNS) Development Test & Evaluation	C/CPIF	Raytheon : Portsmouth, RI	17.168	0.000		0.000		0.375	Nov 2016	-		0.375	0.000	17.543	-
(AMNS) Operational Test & Evaluation	WR	COTF : Norfolk, VA	16.370	3.000	Nov 2014	0.725	Nov 2015	0.000		-		0.000	0.125	20.220	-
Subtotal			77.035	3.000		0.725		0.500		-		0.500	0.125	81.385	-

Management Services (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
(AMNS) Management Support	C/BA	NSWC PC : NSWC PC	0.000	0.363	Nov 2014	0.100	Nov 2015	0.128	Nov 2016	-		0.128	0.053	0.644	-
Barracuda Management Support	WR	NSWC PC : Panama City, FL	0.000	0.000		0.000		0.246	Nov 2016	-		0.246	0.000	0.246	-
Barracuda Program Management	WR	NUWC NPT : Newport RI	0.000	0.000		0.000		0.272	Nov 2016	-		0.272	0.000	0.272	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy **Date:** February 2016

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604373N / Airborne Mine Countermeasures (AMCM)	Project (Number/Name) 2473 / Airborne Mine Neutralization System
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Management Services (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Barracuda Engineering Support	C/CPIF	JHU APL : Baltimore, MD	0.000	0.000		0.000		0.128	Nov 2016	-		0.128	0.000	0.128	-
(AMNS) Program Management Support	C/CPFF	Various : Various	6.928	0.300	Nov 2014	0.127	Nov 2015	0.000		-		0.000	0.000	7.355	-
(AMNS) Program Management Support	C/CPIF	Raytheon : Portsmouth, RI	1.996	0.296	Nov 2014	0.262	Nov 2015	0.177	Nov 2016	-		0.177	0.073	2.804	-
(AMNS) Program Management Support	Various	Field Activity : Various	2.033	0.146	Nov 2014	0.173	Nov 2015	0.000		-		0.000	0.000	2.352	-
(AMNS) Travel	Allot	NAVSEA : Washington, DC	0.118	0.041	Nov 2014	0.000		0.000		-		0.000	0.000	0.159	-
DAWDF	Sub Allot	NAVSEA : Washington, DC	5.153	0.000		0.000		0.000		-		0.000	0.000	5.153	-
Subtotal			16.228	1.146		0.662		0.951		-		0.951	0.126	19.113	-

	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	142.602	7.270	4.521	13.903	-	13.903	-	-	-

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604373N / Airborne Mine Countermeasures (AMCM)	Project (Number/Name) 2473 / Airborne Mine Neutralization System

AMNS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021							
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q				
Acquisition Milestones																																
Initial Operational Capability																																
System Development																																
AMNS System Development	AMNS System Development																															
AMNS P3I Upgrades					AMNS Upgrade Development																											
Test & Evaluation Milestones																																
AMNS Development Testing (MH-60s)	DT/IT	LCS Independence Class DT																														
AMNS Operational Testing (MH-60s)	OA				Alternate Fiber Testing				Dash 4 Configuration Testing																							
Production Milestones																																
LRIP #7 ▲																																
Production Deliveries																																
Deliveries																																

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 Navy **Date:** February 2016

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604373N / Airborne Mine Countermeasures (AMCM)	Project (Number/Name) 2473 / Airborne Mine Neutralization System
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iAMNS / Barracuda Neutralization	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021							
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q				
Acquisition Milestones																																
iAMNS / Barracuda Acquisition Documentation									Acquisition Documentation								Milestone B Decision ▲															
													E&MD Contract Award ▲																			
iAMNS / Barracuda Design Reviews																	PDR ▲				CDR ▲											
System Development																																
iAMNS / Barracuda									iAMNS / Barracuda Development																							
Test and Evaluation																																
Development Testing (DT)																									DT Testing							
System Deliveries																																
Engineering Development Model Delivery																									EDM							

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604373N / Airborne Mine Countermeasures (AMCM)	Project (Number/Name) 2473 / Airborne Mine Neutralization System

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
AMNS				
Acquisition Milestones: Initial Operational Capability: Initial Operational Capability	2	2016	2	2016
System Development: AMNS System Development: AMNS System Development	1	2015	4	2015
System Development: AMNS P3I Upgrades: AMNS Upgrade Development	1	2016	4	2018
Test & Evaluation Milestones: AMNS Development Testing (MH-60s): DT/IT	1	2015	1	2015
Test & Evaluation Milestones: AMNS Development Testing (MH-60s): LCS Independence Class DT	2	2015	3	2015
Test & Evaluation Milestones: AMNS Operational Testing (MH-60s): Operational Assessment	1	2015	1	2015
Test & Evaluation Milestones: AMNS Operational Testing (MH-60s): Alternate Fiber Testing	1	2017	4	2017
Test & Evaluation Milestones: AMNS Operational Testing (MH-60s): Dash 4 Configuration Testing	1	2017	4	2017
Production Milestones: AMNS LRIP (FY13)	1	2015	1	2015
Production Deliveries: Deliveries	1	2015	3	2016
iAMNS / Barracuda Neutralization				
Acquisition Milestones: iAMNS / Barracuda Acquisition Documentation: Acquisition Documentation	1	2017	1	2018
Acquisition Milestones: iAMNS / Barracuda Acquisition Documentation: Milestone B Decision	3	2018	3	2018
Acquisition Milestones: iAMNS / Barracuda Acquisition Documentation: Near Surface Contract Award	3	2018	3	2018
Acquisition Milestones: iAMNS / Barracuda Design Reviews: Preliminary Design Review	2	2019	2	2019

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604373N / <i>Airborne Mine Countermeasures (AMCM)</i>	Project (Number/Name) 2473 / <i>Airborne Mine Neutralization System</i>

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Acquisition Milestones: iAMNS / Barracuda Design Reviews: Critical Design Review	1	2020	1	2020
System Development: iAMNS / Barracuda: iAMNS Barracuda Development	1	2017	4	2021
Test and Evaluation: Development Testing (DT): Development Testing (DT)	1	2021	4	2021
System Deliveries: Engineering Development Model Delivery: Engineering Development Model Delivery	1	2021	4	2021

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy										Date: February 2016		
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0604373N / Airborne Mine Countermeasures (AMCM)				Project (Number/Name) 4026 / Strat Into Medal, Tactics & Trng Organic Force			
COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
4026: <i>Strat Into Medal, Tactics & Trng Organic Force</i>	24.885	6.858	1.642	11.786	-	11.786	11.363	9.458	9.682	9.892	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The C4I, Tactics, Mission Planning (CTMP), and Post-Mission Analysis (PMA) 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. CTMP evolved into both developing MEDAL modules for each "Next Generation" system and developing "Next Generation" Tactics. Additionally, CTMP provides threat data and system requirements and capabilities to the MEDAL software development effort. Finally, CTMP develops Networked Sensor Analysis for Mine Warfare (NSAM) as a MOSA compliant plug-in architecture of common post-mission analysis tools for "Next Generation" systems.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: Hardware/Software Development	5.394	0.731	8.942	0.000	8.942
Articles:	-	-	-	-	-
FY 2015 Accomplishments: Continued NSAM Open Architecture development, enhanced design and test					
FY 2016 Plans: Continue NSAM Open Architecture development, enhanced design and test					
FY 2017 Base Plans: CTMP development efforts will ramp up for Final LCS MCM mission package testing and integration to execute fielding to LCS in mid FY18. Complete NSAM increment one software development, begin NSAM increment II software design and development, conduct prototype development, conduct formal independent testing, and start LCS MCM mission package integration testing.					
FY 2017 OCO Plans: N/A					
Title: Engineering Services/ILS:	1.283	0.753	2.300	0.000	2.300
Articles:	-	-	-	-	-
FY 2015 Accomplishments:					

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604373N / Airborne Mine Countermeasures (AMCM)	Project (Number/Name) 4026 / Strat Into Medal, Tactics & Trng Organic Force

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Update ALMDS & AMNS TACMEMOs, upgrade tactics for MCM Mission Package and NSAM Engineering Support. FY 2016 Plans: Continue to update ALMDS & AMNS TACMEMOs, upgrade tactics for P31 sensors on AN/AQS-20A and NSAM Engineering Support, draft new effects based risk TACMEMO. FY 2017 Base Plans: Production of training manuals, and technical pubs to be provided to the fleet in support of LCS. FY 2017 OCO Plans: N/A					
Title: Management Support FY 2015 Accomplishments: CTMP Management Support NSAM Management Support FY 2016 Plans: CTMP Management Support NSAM Management Support FY 2017 Base Plans: Provide CTMP and NSAM management support FY 2017 OCO Plans: N/A	0.181	0.158	0.544	0.000	0.544
Articles:	-	-	-	-	-
Accomplishments/Planned Programs Subtotals	6.858	1.642	11.786	0.000	11.786

C. Other Program Funding Summary (\$ in Millions) N/A Remarks

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604373N / <i>Airborne Mine Countermeasures (AMCM)</i>	Project (Number/Name) 4026 / <i>Strat Into Medal, Tactics & Trng Organic Force</i>

D. Acquisition Strategy

The Organic Post-Mission Analysis (OPMA) capability for the OAMCM systems was developed by NSWC PCD, Panama City, FL. OMN funding will be used to procure COTS ruggedized portable OPMA computers for LCS MCM Mission Package, ship of opportunity deployments, land basing, and training. NSWC-PCD has awarded contract for this Technical Refresh procurement with option years extending until FY18. NSAM will merge capabilities of OPMA and NAVO's Environmental PMA (EPMA) capabilities into an Open Architecture framework. Increment Build One will utilize government teams NSWC PCD and NRL-SSC to expedite fielding significant contact management improvements, data fusion techniques, and environmental PMA.

The tactics development, tactics training, and tactics algorithms/database efforts are performed by NSWC-PCD. 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. Performance Metrics

Successfully integrate CTMP into LCS MCM Mission Package.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy												Date: February 2016			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
1319 / 5				PE 0604373N / Airborne Mine Countermeasures (AMCM)				4026 / Strat Into Medal, Tactics & Trng Organic Force							
Product Development (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Hardware Software Development	WR	NSWC PCD : Panama City FL	13.832	5.044	Nov 2014	0.558	Nov 2015	4.442	Nov 2016	-		4.442	Continuing	Continuing	Continuing
Hardware/Software Development	WR	NRL-SSC : Bay St. Louis, MS	0.600	0.350	Nov 2014	0.173	Nov 2015	4.500	Nov 2016	-		4.500	Continuing	Continuing	Continuing
Subtotal			14.432	5.394		0.731		8.942		-		8.942	-	-	-
Support (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering Services	WR	SSC-PAC : Various	0.040	0.000	Nov 2014	0.000		0.000		-		0.000	0.000	0.040	-
Engineering Services	WR	NSWC PCD : Panama City FL	7.298	0.933	Nov 2014	0.501	Nov 2015	2.300	Nov 2016	-		2.300	Continuing	Continuing	Continuing
Engineering Services	WR	NRL-SSC : Bay St. Louis, MS	0.337	0.125	Nov 2014	0.132	Nov 2015	0.000		-		0.000	Continuing	Continuing	Continuing
ILS	WR	NSWC PC : Panama City FL	1.400	0.225	Nov 2014	0.120	Nov 2015	0.000		-		0.000	Continuing	Continuing	Continuing
Subtotal			9.075	1.283		0.753		2.300		-		2.300	-	-	-
Management Services (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Management Support	WR	NSWC PC : Panama City FL	1.365	0.181	Nov 2014	0.158	Nov 2015	0.200	Nov 2016	-		0.200	Continuing	Continuing	Continuing
Acquisition Workforce Fund	Various	Various : Various	0.013	0.000		0.000		0.344	Nov 2016	-		0.344	0.000	0.357	-
Subtotal			1.378	0.181		0.158		0.544		-		0.544	-	-	-

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 Navy **Date:** February 2016

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604373N / Airborne Mine Countermeasures (AMCM)	Project (Number/Name) 4026 / Strat Into Medal, Tactics & Trng Organic Force
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Proj 4026	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021							
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q				
Acquisition Milestones																																
System Development																																
MEDAL																																
OPMA	OPMA: Ongoing Development for P3I; Software																															
	OPMA: Tech Refresh																															
	OPMA: IA Recertification																															
NSAM	NSAM: NSAM S/W Development																															
	NSAM: NSAM Pubs																															
Tactics	Develop NTRP 3-15.2.2																															
	TACMEMO ALMDS				TACMEMO AMNS																											
	Reachback OAMCM support																															
	Update NTPP 3-15.22																															
	TACMEMO Efforts based application of Risk (EBAR)																															
Test & Evaluation																																
									NSAM Independent Testing				LCS MP Integration Testing																			
Production Milestones																																
Deliveries																																

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604373N / Airborne Mine Countermeasures (AMCM)	Project (Number/Name) 4026 / Strat Into Medal, Tactics & Trng Organic Force

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 4026				
System Development: OPMA: OPMA: Ongoing Development for Sensor P3I; Software	1	2015	4	2017
System Development: OPMA: OPMA: Tech Refresh to address Window XP End of Life	1	2015	2	2016
System Development: OPMA: OPMA: IA Recertification	1	2015	1	2015
System Development: NSAM: NSAM: NSAM S/W Development	1	2015	4	2020
System Development: NSAM: NSAM: NSAM Pubs	1	2015	2	2017
System Development: Tactics: Develop NTRP 3-15.2.2	1	2015	4	2020
System Development: Tactics: TACMEMO ALMDS	1	2015	3	2015
System Development: Tactics: TACMEMO AMNS	3	2016	2	2017
System Development: Tactics: Reachback OAMCM support	1	2015	4	2020
System Development: Tactics: Update NTTP 3-15.22	2	2015	4	2017
System Development: Tactics: TACMEMO Efforts based application of Risk (EBAR)	1	2015	2	2017
Test & Evaluation: Independent Testing of NSAM	1	2017	2	2017
Test & Evaluation: LCS MCM Mission Package Integration Testing	3	2017	2	2018

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy										Date: February 2016		
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0604373N / Airborne Mine Countermeasures (AMCM)				Project (Number/Name) 9179 / Surf Navy Integ Undersea Tactical Tech			
COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
9179: Surf Navy Integ Undersea Tactical Tech	4.939	0.856	0.000	1.363	-	1.363	1.261	0.927	0.950	0.972	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

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-24 and AN/AQS-20A sensor training modules and future Organic Airborne Mine Countermeasures (OAMCM) Sensor Training Modules.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: Hardware and Software Development	0.722	0.000	1.363	0.000	1.363
Articles:	-	-	-	-	-
FY 2015 Accomplishments: Updated the AN/AQS-24, AN/AQS-20A sonar training module. Development of a Scenario Generator software system for COBRA for mine field recognition training and ALMDS training modules.					
FY 2016 Plans: N/A					
FY 2017 Base Plans: Continue to update the AN/AQS-24, AN/AQS-20A sonar training module. Continue development of a Scenario Generator software system for COBRA for mine field recognition training and ALMDS training modules.					
FY 2017 OCO Plans: N/A					
Title: Engineering and ILS Services	0.134	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2015 Accomplishments: Provide SNIUTT In-Service Engineering Agent (ISEA) and development support.					
FY 2016 Plans: N/A					
FY 2017 Base Plans:					

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604373N / <i>Airborne Mine Countermeasures (AMCM)</i>	Project (Number/Name) 9179 / <i>Surf Navy Integ Undersea Tactical Tech</i>

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
N/A					
<i>FY 2017 OCO Plans:</i> N/A					
Accomplishments/Planned Programs Subtotals	0.856	0.000	1.363	0.000	1.363

C. Other Program Funding Summary (\$ in Millions)
N/A

Remarks

D. Acquisition Strategy

Surface Navy Integrated Undersea Tactical Training (SNIUTT) has been used to develop AN/SQQ-32, AN/AQS-14, AN/AQS-24 and AN/AQS-20A sensor training modules. Funds will continue to support training for these 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 PCD, Panama City, FL,. 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. Performance Metrics

Successfully integrate SNIUTT into the school house training facility and provide to AMCM detachments for refresher training.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy												Date: February 2016			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
1319 / 5				PE 0604373N / Airborne Mine Countermeasures (AMCM)				9179 / Surf Navy Integ Undersea Tactical Tech							
Product Development (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Hardware Software Development	WR	NSWC PC : Panama City FI	4.185	0.722	Nov 2014	0.000		1.363	Nov 2016	-		1.363	Continuing	Continuing	Continuing
Subtotal			4.185	0.722		0.000		1.363		-		1.363	-	-	-
Support (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
ISEA	WR	NSWC, PC : Panama City FL	0.751	0.134	Nov 2014	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Subtotal			0.751	0.134		0.000		0.000		-		0.000	-	-	-
Management Services (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
DAWDF	Various	Various : Various	0.003	0.000		0.000		0.000		-		0.000	0.000	0.003	-
Subtotal			0.003	0.000		0.000		0.000		-		0.000	0.000	0.003	-
Project Cost Totals			4.939	0.856		0.000		1.363		-		1.363	-	-	-
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 Navy

Date: February 2016

Appropriation/Budget Activity
1319 / 5

R-1 Program Element (Number/Name)
PE 0604373N / Airborne Mine
Countermeasures (AMCM)

Project (Number/Name)
9179 / Surf Navy Integ Undersea Tactical
Tech

SNIUTT	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021							
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q				
System Development																																
SNIUTT	_____				_____				_____				_____				_____				_____											

2017OSD - 0604373N - 9179

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604373N / <i>Airborne Mine Countermeasures (AMCM)</i>	Project (Number/Name) 9179 / <i>Surf Navy Integ Undersea Tactical Tech</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
SNIUTT				
System Development: SNIUTT: SNIUTT	1	2015	4	2015
System Development: SNIUTT: SNIUTT Continued	1	2017	4	2020

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