



Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-286



Remote Minehunting System (RMS)

As of FY 2011 President's Budget

Defense Acquisition Management
Information Retrieval
(DAMIR)

Table of Contents

Common Acronyms and Abbreviations for MDAP Programs	3
Program Information	5
Responsible Office	5
References	5
Mission and Description	6
Executive Summary	7
Threshold Breaches	8
Schedule	9
Performance	11
Track to Budget	12
Cost and Funding	13
Low Rate Initial Production	21
Foreign Military Sales	22
Nuclear Costs	22
Unit Cost	23
Cost Variance	28
Contracts	31
Deliveries and Expenditures	32
Operating and Support Cost	33

Common Acronyms and Abbreviations for MDAP Programs

Acq O&M - Acquisition-Related Operations and Maintenance
ACAT - Acquisition Category
ADM - Acquisition Decision Memorandum
APB - Acquisition Program Baseline
APPN - Appropriation
APUC - Average Procurement Unit Cost
\$B - Billions of Dollars
BA - Budget Authority/Budget Activity
Blk - Block
BY - Base Year
CAPE - Cost Assessment and Program Evaluation
CARD - Cost Analysis Requirements Description
CDD - Capability Development Document
CLIN - Contract Line Item Number
CPD - Capability Production Document
CY - Calendar Year
DAB - Defense Acquisition Board
DAE - Defense Acquisition Executive
DAMIR - Defense Acquisition Management Information Retrieval
DoD - Department of Defense
DSN - Defense Switched Network
EMD - Engineering and Manufacturing Development
EVM - Earned Value Management
FOC - Full Operational Capability
FMS - Foreign Military Sales
FRP - Full Rate Production
FY - Fiscal Year
FYDP - Future Years Defense Program
ICE - Independent Cost Estimate
IOC - Initial Operational Capability
Inc - Increment
JROC - Joint Requirements Oversight Council
\$K - Thousands of Dollars
KPP - Key Performance Parameter
LRIP - Low Rate Initial Production
\$M - Millions of Dollars
MDA - Milestone Decision Authority
MDAP - Major Defense Acquisition Program
MILCON - Military Construction
N/A - Not Applicable
O&M - Operations and Maintenance
ORD - Operational Requirements Document
OSD - Office of the Secretary of Defense
O&S - Operating and Support
PAUC - Program Acquisition Unit Cost

PB - President's Budget
PE - Program Element
PEO - Program Executive Officer
PM - Program Manager
POE - Program Office Estimate
RDT&E - Research, Development, Test, and Evaluation
SAR - Selected Acquisition Report
SCP - Service Cost Position
TBD - To Be Determined
TY - Then Year
UCR - Unit Cost Reporting
U.S. - United States
USD(AT&L) - Under Secretary of Defense (Acquisition, Technology and Logistics)

Program Information

Program Name

Remote Minehunting System (RMS)

DoD Component

Navy

Responsible Office

CAPT Paul Siegrist (PMS 403)
614 Sicard St. S.E.
Washington Navy Yard Bldg 201
Washington, DC 20376

paul.siegrist@navy.mil

Phone: 202-781-1393

Fax: 202-781-4696

DSN Phone: 326-1393

DSN Fax:

Date

Assigned: November 18, 2008

References

SAR Baseline (Production Estimate)

Navy Acquisition Executive (NAE) Approved Acquisition Program Baseline (APB) dated October 23, 2006

Approved APB

ASN Approved Acquisition Program Baseline (APB) dated April 17, 2008

Mission and Description

The AN/WLD-1(V)1 Remote Minehunting System (RMS) is a mine reconnaissance system designed for the detection, classification, identification, and localization of bottom and moored targets in shallow and deep water. RMS is a fully integrated system consisting of a semi-submersible Remote Multi-mission Vehicle (RMMV) carrying a towed variable depth sensor. Line-Of-Sight (LOS) and Over-The-Horizon (OTH) telemetry provides vehicle Command and Control and mine reconnaissance sensor data transmission to/from a system aboard a Navy ship. RMS will provide the Navy the capability to keep ships and sailors out of the minefield.

The RMMV is a high-endurance, radio-controlled, low-observable unmanned vehicle operated and maintained from surface ships. The RMMV tows a variable depth sensor body to the operations area where mine reconnaissance data will be collected, recorded, and transmitted to the host ship. The RMMV provides propulsion, electrical and hydraulic power, communications, navigation, and a cable connection for exchanging tactical data with the towed body and the Navy ship.

Data is continuously exchanged between the host platform and the RMMV for command and control and sensor data. The RMMV uses a modified AN/AQS-20 Variable Depth Sonar (VDS) for detection, classification, and localization of mine-like contacts and mine identification. The RMMV is capable of real-time communication of mine reconnaissance sensor data as well as automatic search and recording modes.

RMS will be installed on the Littoral Combat Ship (LCS) as part of the ship's Mine Warfare (MIW) Mission Package.

Executive Summary

Remote Minehunting System (RMS) Developmental Testing (DT), DT-IIE and DT-IIF, was conducted in 2008 on a Ship of Opportunity and USS Bainbridge (DDG 96), respectively. During DT, the Operational Availability (Ao) Key Performance Parameter (KPP) and the Mean Time Between Operational Mission Failure (MTBOMF) parameter were not successfully achieved. As a result, at the Operational Test Readiness Review in September 2008, the Program Executive Officer for Littoral and Mine Warfare (PEO LMW) scaled back the Operational Evaluation (OPEVAL) on board DDG-96 to an Operational Assessment (OA) based on readiness concerns. During the OA, the Remote Multi-Mission Vehicle (RMMV) did not successfully achieve the Ao KPP or the MTBOMF parameter.

PEO LMW took the following aggressive action to rectify the RMS Program. In November 2008, PEO LMW directed that the responsibility of the RMS program transfer to a different Navy Program Office allowing greater attention to be focused on RMS performance issues.

PEO LMW assigned an Independent Program Review Board to assess the program and recommend a course of action. Under PEO LMW guidance, a spiral Reliability Growth Program (RGP) was formulated and initiated to grow reliability.

A Program Deviation Report (PDR) with a Unit Cost Report (UCR) was submitted on November 2, 2009, and the Secretary of the Navy (SECNAV) notified Congress on December 17, 2009 of a critical Nunn-McCurdy Breach in Average Procurement Unit Cost (APUC) and Program Average Unit Cost (PAUC). The Under Secretary of Defense for Acquisition, Technology and Logistics (USD AT&L) review is to be completed by June 1, 2010.

PEO LMW has coordinated with the Navy Resource Sponsor to assess the operational capability required to support Littoral Combat Ship (LCS) (prior operational requirements were DDG-based). On December 14, 2009, the Navy Resource Sponsor issued a Letter of Intent which addressed Reliability and Availability requirements for LCS-based RMS implementation. It provided a MTBOMF definition of 50% of the RMS Operational Requirements Document (ORD) in order to execute the RGP. Mission Failure and KPP definitions will be formally revised, if necessary, in the Capability Development Document (CDD) to be written as part of the USD AT&L certification process.

Four Low Rate Initial Production (LRIP) RMMVs have been delivered since last report. Seven of the eight total approved LRIP RMMVs have been delivered to the Navy.

A sole source Basic Ordering Agreement (BOA) was awarded on January 22, 2010 to Lockheed Martin Corporation, Riviera Beach, Florida. Delivery orders under this BOA will support the RMS RGP.

There are no software-related issues for this program at this time.

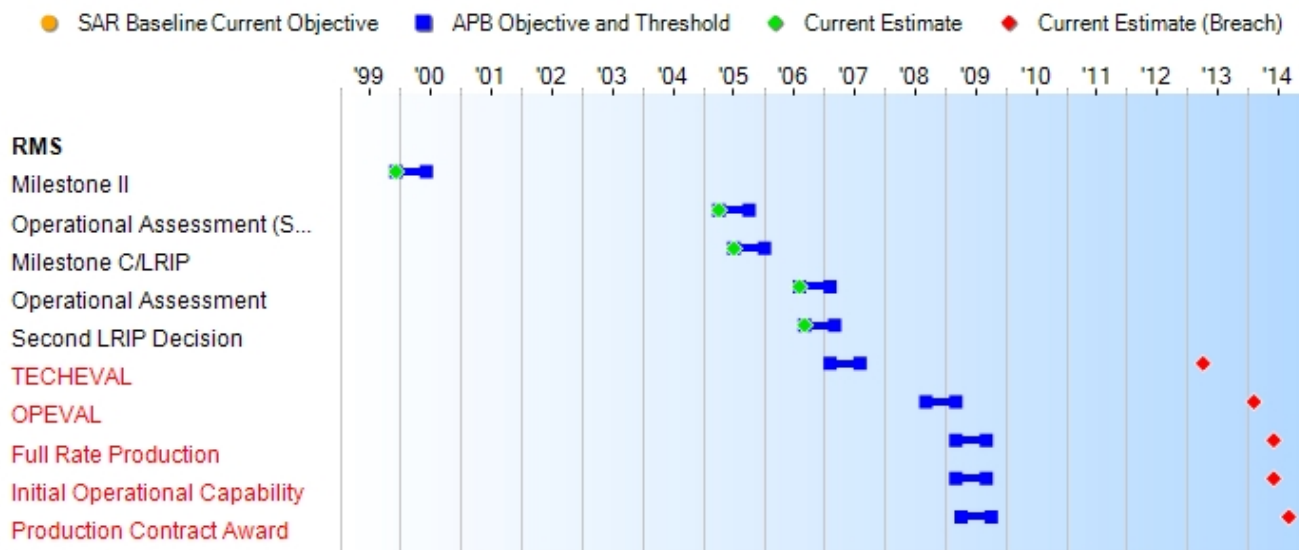
Threshold Breaches

APB Breaches		Explanation of Breach
Schedule	<input checked="" type="checkbox"/>	<p>During its Developmental Testing and the subsequent Operational Assessment, RMS did not successfully achieve the Operational Availability (Ao) Key Performance Parameter (KPP) or the Mean Time Between Operational Mission Failures (MTBOMF) reliability parameter. As a result, there was a performance breach in the Acquisition Program Baseline (APB) for the Ao KPP. In addition, failure to achieve the Ao KPP caused a delay and schedule breach of the RMS OPEVAL milestone as delineated in the approved APB (April 2008). This OPEVAL breach has caused all subsequent APB milestones to be breached.</p>
Performance	<input checked="" type="checkbox"/>	
Cost	<input checked="" type="checkbox"/>	
RDT&E	<input checked="" type="checkbox"/>	
Procurement	<input type="checkbox"/>	
MILCON	<input type="checkbox"/>	
Acq O&M	<input type="checkbox"/>	
O&S Cost	<input type="checkbox"/>	
Unit Cost	<input checked="" type="checkbox"/>	
PAUC	<input checked="" type="checkbox"/>	
APUC	<input checked="" type="checkbox"/>	

Nunn-McCurdy Breaches		Explanation of Breach
Current UCR Baseline		<p>A Reliability Growth Plan (RGP) was developed and is currently being implemented to address the Ao performance issue by improving the reliability of the vehicle. The Research, Development, Test & Engineering (RDT&E) cost of the RGP has contributed to the breach in RDT&E cost.</p>
PAUC	Critical	
APUC	Critical	
Original UCR Baseline		<p>The breach in Program Average Unit Cost (PAUC) and Average Program Unit Cost (APUC) was caused by a reduction in production quantities and the use of an incorrect average unit cost as a basis of estimate in the 2006 APB. President's Budget 2010 (PB-10) eliminated the Remote Multi-mission Vehicles (RMMVs) for the Anti-Submarine Warfare (ASW) Mission Package for the Littoral Combat Ship (LCS) reducing the number of RMMV production units to 52 (APB quantity is 106 RMMVs). An additional contributing factor to the PAUC breach was the increase in RDT&E costs from the RGP. An Independent Cost Estimate is currently underway.</p> <p>The Secretary of the Navy (SECNAV) notified Congress on December 17, 2009 of a critical Nunn-McCurdy Breach in both PAUC and APUC. USD (AT&L) review is to be completed by June 1, 2010. The Program Office plans to submit an updated APB to reflect revised milestones, performance parameters, and cost parameters once the Under Secretary of Defense (USD) Acquisition, Technology & Logistics (AT&L) Certification is complete.</p>
PAUC	Critical	
APUC	Critical	

Classified Threshold Breaches information is provided in the classified annex to this submission.

Schedule



Schedule Events				
Events	SAR Baseline Production Estimate	Current APB Production Objective/Threshold		Current Estimate
Milestone II	Dec 1999	Dec 1999	Jun 2000	Dec 1999
Operational Assessment (Shallow)	Apr 2005	Apr 2005	Oct 2005	Apr 2005
Milestone C/LRIP	Jul 2005	Jul 2005	Jan 2006	Jul 2005
Operational Assessment	Aug 2006	Aug 2006	Feb 2007	Aug 2006
Second LRIP Decision	Sep 2006	Sep 2006	Mar 2007	Sep 2006
TECHEVAL	Feb 2007	Feb 2007	Aug 2007	Apr 2013 ¹ (Ch-1)
OPEVAL	Jun 2007	Sep 2008	Mar 2009	Feb 2014 ¹ (Ch-1)
Full Rate Production	Oct 2007	Mar 2009	Sep 2009	Jun 2014 ¹ (Ch-1)
Initial Operational Capability	Sep 2007	Mar 2009	Sep 2009	Jun 2014 ¹ (Ch-1)
Production Contract Award	Oct 2007	Apr 2009	Oct 2009	Sep 2014 ¹ (Ch-1)

¹ APB Breach

Change Explanations

(Ch-1) Operational Evaluation (OPEVAL) testing was scheduled for September 2008. At the OPEVAL Test Readiness Review (OTRR), the Program Executive Officer for Littoral and Mine Warfare (PEO LMW) directed that an Operational Assessment (OA) be conducted vice an OPEVAL. The OPEVAL milestone as delineated in the approved Acquisition Program Baseline (APB) (April 2008) was breached. OPEVAL was scheduled for September 2008 and is changed to February 2014. Technical Evaluation (TECHEVAL), previously reported as completed in February 2007, will be repeated and is changed to April 2013. Subsequent milestones were not achieved, therefore, breaching the APB also. Both Full Rate Production (FRP) Decision and Initial Operating Capability (IOC) were scheduled for March 2009 and are changed to June 2014. Production Contract Award was scheduled for April 2009 and is changed to September 2014.

Notes

Program Office plans to submit an updated APB to reflect revised milestones. Current estimate reflects current plan of action.

Acronyms and Abbreviations

APB - Acquisition Program Baseline
LRIP - Low Rate Initial Production
OPEVAL - Operational Evaluation
TECHEVAL - Technical Evaluation

Performance

Performance Characteristics				
SAR Baseline Production Estimate	Current APB Production Objective/Threshold		Demonstrated Performance	Current Estimate
Water Depth -Shallow (ft)				
Mine Type				
N/A	Bottom, CCT, CT, IV	Bottom, CCT, CT, IV	Bottom, CCT, CT, IV	Bottom, CCT, CT, IV
Water Depth - Deep (ft)				
Mine Type				
N/A	CCT, CT, IV	CCT, CT, IV	CCT, CT, IV	CCT, CT, IV
Transit Speed (kts)				
20	20	12	16	16
Operational Availability				
.85	.85	0.80	0.71	0.71¹

¹ APB Breach

Classified Performance information is provided in the classified annex to this submission.

Change Explanations

None

Track to Budget

RDT&E

Appn	BA	PE
Navy	1319 04	0603502N
	Project	Name
	0260	Surface and Shallow Water Mine Countermeasures (Shared)

Procurement

Appn	BA	PE
Navy	1810 02	0204302N
	Line Item	Name
		Minesweeping System Replacement (Shared)
Navy	1810 01	0204230N
	Line Item	Name
		LCS Modules (Shared)
Navy	1810 08	0204228N
	Line Item	Name
		Spares and Repair Parts (Shared)

Notes

For the shared PE0204302N, Minesweeping System Replacement, the RMS budget is all the elements of cost listed under Cost Code LV064, Remote Minehunting System (RMS)

For the shared PE0204230N, LCS Modules, the RMS budget is only the RMMV element of cost under the Cost Code LM001.

Cost and Funding

Cost Summary

Total Acquisition Cost							
Appropriation	BY 2006 \$M			BY 2006 \$M	TY \$M		
	SAR Baseline Production Estimate	Current APB Production Objective/Threshold		Current Estimate	SAR Baseline Production Estimate	Current APB Production Objective	Current Estimate
RDT&E	418.0	418.0	459.8	498.8 ¹	384.8	384.8	480.1
Procurement	886.6	886.6	975.3	672.4	1014.6	1014.6	826.4
Flyaway	--	--	--	553.2	--	--	684.1
Recurring	--	--	--	553.2	--	--	684.1
Non Recurring	--	--	--	0.0	--	--	0.0
Support	--	--	--	119.2	--	--	142.3
Other Support	--	--	--	101.9	--	--	120.3
Initial Spares	--	--	--	17.3	--	--	22.0
MILCON	0.0	0.0	--	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	--	0.0	0.0	0.0	0.0
Total	1304.6	1304.6	N/A	1171.2	1399.4	1399.4	1306.5

¹ APB Breach

Total Quantity			
Quantity	SAR Baseline Production Estimate	Current APB Production	Current Estimate
RDT&E		2	2
Procurement		106	52
Total		108	54

Cost and Funding

Funding Summary

Appropriation Summary									
FY 2011 President's Budget / December 2009 SAR (TY\$ M)									
Appropriation	Prior	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total
RDT&E	389.4	13.9	19.7	18.8	20.7	8.3	7.6	1.7	480.1
Procurement	109.3	6.0	5.0	11.4	35.5	36.0	62.4	560.8	826.4
MILCON	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PB 2011 Total	498.7	19.9	24.7	30.2	56.2	44.3	70.0	562.5	1306.5
PB 2009 Total	560.1	58.6	77.3	86.9	76.4	101.0	103.4	486.0	1549.7
Delta	-61.4	-38.7	-52.6	-56.7	-20.2	-56.7	-33.4	76.5	-243.2

Quantity Summary										
FY 2011 President's Budget / December 2009 SAR (TY\$ M)										
Quantity	Undistributed	Prior	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total
Development	2	0	0	0	0	0	0	0	0	2
Production	0	8	0	0	0	2	2	4	36	52
PB 2011 Total	2	8	0	0	0	2	2	4	36	54
PB 2009 Total	2	12	4	6	6	5	12	12	49	108
Delta	0	-4	-4	-6	-6	-3	-10	-8	-13	-54

Cost and Funding

Annual Funding By Appropriation

Annual Funding							
1319 RDT&E Research, Development, Test, and Evaluation, Navy							
Fiscal Year	Quantity	TY \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
1996	--	--	--	--	--	--	11.9
1997	--	--	--	--	--	--	24.6
1998	--	--	--	--	--	--	16.4
1999	--	--	--	--	--	--	17.4
2000	--	--	--	--	--	--	47.5
2001	--	--	--	--	--	--	42.9
2002	--	--	--	--	--	--	55.4
2003	--	--	--	--	--	--	59.0
2004	--	--	--	--	--	--	56.7
2005	--	--	--	--	--	--	17.3
2006	--	--	--	--	--	--	20.1
2007	--	--	--	--	--	--	5.7
2008	--	--	--	--	--	--	8.5
2009	--	--	--	--	--	--	6.0
2010	--	--	--	--	--	--	13.9
2011	--	--	--	--	--	--	19.7
2012	--	--	--	--	--	--	18.8
2013	--	--	--	--	--	--	20.7
2014	--	--	--	--	--	--	8.3
2015	--	--	--	--	--	--	7.6
2016	--	--	--	--	--	--	1.7
Subtotal	2	--	--	--	--	--	480.1

Annual Funding 1319 RDT&E Research, Development, Test, and Evaluation, Navy							
Fiscal Year	Quantity	BY 2006 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
1996	--	--	--	--	--	--	13.8
1997	--	--	--	--	--	--	28.2
1998	--	--	--	--	--	--	18.7
1999	--	--	--	--	--	--	19.6
2000	--	--	--	--	--	--	52.7
2001	--	--	--	--	--	--	46.9
2002	--	--	--	--	--	--	60.0
2003	--	--	--	--	--	--	63.0
2004	--	--	--	--	--	--	58.9
2005	--	--	--	--	--	--	17.5
2006	--	--	--	--	--	--	19.7
2007	--	--	--	--	--	--	5.5
2008	--	--	--	--	--	--	8.0
2009	--	--	--	--	--	--	5.6
2010	--	--	--	--	--	--	12.8
2011	--	--	--	--	--	--	17.9
2012	--	--	--	--	--	--	16.8
2013	--	--	--	--	--	--	18.2
2014	--	--	--	--	--	--	7.2
2015	--	--	--	--	--	--	6.4
2016	--	--	--	--	--	--	1.4
Subtotal	2	--	--	--	--	--	498.8

Previous SAR did not reflect funding identified for RMS Pre-Planned Product Improvement (P3I) program in FY09 and out. PB-11 identifies funding in FY09 and out for the Reliability Growth Program.

Annual Funding 1810 Procurement Other Procurement, Navy								
Fiscal Year	Quantity	TY \$M						
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program	
2005	3	32.1	--	--	32.1	2.1	34.2	
2006	4	46.3	--	--	46.3	11.7	58.0	
2007	--	--	--	--	--	--	--	
2008	1	10.8	--	--	10.8	3.6	14.4	
2009	--	--	--	--	--	2.7	2.7	
2010	--	--	--	--	--	6.0	6.0	
2011	--	--	--	--	--	5.0	5.0	
2012	--	--	--	--	--	11.4	11.4	
2013	2	24.0	--	--	24.0	11.5	35.5	
2014	2	24.4	--	--	24.4	11.6	36.0	
2015	4	49.6	--	--	49.6	12.8	62.4	
2016	4	52.6	--	--	52.6	6.9	59.5	
2017	4	53.1	--	--	53.1	6.9	60.0	
2018	4	53.9	--	--	53.9	7.0	60.9	
2019	4	54.2	--	--	54.2	7.0	61.2	
2020	4	54.6	--	--	54.6	7.0	61.6	
2021	4	56.9	--	--	56.9	7.3	64.2	
2022	4	57.7	--	--	57.7	7.3	65.0	
2023	4	57.3	--	--	57.3	7.3	64.6	
2024	4	56.6	--	--	56.6	7.2	63.8	
Subtotal	52	684.1	--	--	684.1	142.3	826.4	

Annual Funding 1810 Procurement Other Procurement, Navy								
Fiscal Year	Quantity	BY 2006 \$M						
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program	
2005	3	32.1	--	--	32.1	2.1	34.2	
2006	4	44.8	--	--	44.8	11.3	56.1	
2007	--	--	--	--	--	--	--	
2008	1	10.1	--	--	10.1	3.3	13.4	
2009	--	--	--	--	--	2.5	2.5	
2010	--	--	--	--	--	5.5	5.5	
2011	--	--	--	--	--	4.5	4.5	
2012	--	--	--	--	--	10.1	10.1	
2013	2	20.8	--	--	20.8	10.0	30.8	
2014	2	20.8	--	--	20.8	9.9	30.7	
2015	4	41.6	--	--	41.6	10.7	52.3	
2016	4	43.4	--	--	43.4	5.7	49.1	
2017	4	43.1	--	--	43.1	5.6	48.7	
2018	4	43.0	--	--	43.0	5.6	48.6	
2019	4	42.5	--	--	42.5	5.5	48.0	
2020	4	42.1	--	--	42.1	5.4	47.5	
2021	4	43.1	--	--	43.1	5.6	48.7	
2022	4	43.0	--	--	43.0	5.4	48.4	
2023	4	42.0	--	--	42.0	5.3	47.3	
2024	4	40.8	--	--	40.8	5.2	46.0	
Subtotal	52	553.2	--	--	553.2	119.2	672.4	

PB-10 eliminated the Remote Multi-Mission Vehicles (RMMVs) units for the Littoral Combat Ship (LCS) Anti-Submarine Warfare (ASW) Mission package reducing the number of RMMVs procured to 52 (APB baseline quantity is 106 RMMVs.) This results in overall decreased procurement costs but increased procurement unit cost.

Budget request for Initial Spares (\$22.0M) will be funded as part of Budget Activity 08, Program Element 0204228N, Spares and Repair Parts.

Low Rate Initial Production

Item	Initial LRIP Decision	Current Total LRIP
Approval Date	7/1/2005	4/2/2008
Approved Quantity	3	8
Reference	ASN(RDA) ADM	ASN(RDA) ADM
Start Year	2005	2005
End Year	2007	2010

Eight (8) LRIP units have been approved to date. Seven (7) LRIP units have been delivered.

President's Budget 2010 (PB-10) eliminated the Remote Multi-Mission Vehicles (RMMVs) for the Anti-Submarine Warfare (ASW) Mission Package for the Littoral Combat Ship (LCS) reducing the number of RMMV production units from 106 to 52. This resulted in the total number of RMMV LRIP units (8) to exceed the 10% threshold.

Foreign Military Sales

None

Nuclear Costs

None

Unit Cost

Unit Cost Report

Item	BY 2006 \$M	BY 2006 \$M	% Change
	Current UCR Baseline (Apr 2008 APB)	Current Estimate (Dec 2009 SAR)	
Program Acquisition Unit Cost			
Cost	1304.6	1171.2	
Quantity	108	54	
Item	12.080	21.689	+79.54¹
Average Procurement Unit Cost			
Cost	886.6	672.4	
Quantity	106	52	
Unit Cost	8.364	12.931	+54.60¹

Item	BY 2006 \$M	BY 2006 \$M	% Change
	Original UCR Baseline (Oct 2006 APB)	Current Estimate (Dec 2009 SAR)	
Program Acquisition Unit Cost			
Cost	1304.6	1171.2	
Quantity	108	54	
Unit Cost	12.080	21.689	+79.54¹
Average Procurement Unit Cost			
Cost	886.6	672.4	
Quantity	106	52	
Unit Cost	8.364	12.931	+54.60¹

Unit Cost	TY \$M		TY % Change
	Current UCR Baseline (Apr 2008 APB)	Current Estimate (Dec 2009 SAR)	
Program Acquisition Unit Cost (PAUC)			
Cost	1399.4	1306.5	
Unit Cost	12.957	24.194	+86.73
Average Procurement Unit Cost (APUC)			
Cost	1014.6	826.4	
Unit Cost	9.572	15.892	+66.03

Unit Cost	TY \$M		TY % Change
	Original UCR Baseline (Oct 2006 APB)	Current Estimate (Dec 2009 SAR)	
Program Acquisition Unit Cost (PAUC)			
Cost	1399.4	1306.5	
Unit Cost	12.957	24.194	+86.73
Average Procurement Unit Cost (APUC)			
Cost	1014.6	826.4	
Unit Cost	9.572	15.892	+66.03

¹ Nunn-McCurdy Breach

SECNAV notified Congress on December 17, 2009 of a Critical Nunn-McCurdy Breach in PAUC and APUC. Program Office is currently supporting the USD(AT&L) Certification Process. USD(AT&L) review planned to be completed by June 1, 2010.

Unit Cost Breach Data		
Changes From Previous SAR	\$M/Qty.	Percent
PAUC (BY \$M)	8.916	+69.80
APUC (BY \$M)	3.914	+43.41
PAUC Quantity	-54	0.00
PAUC (TY \$M)	9.845	+68.61
APUC (TY \$M)	4.992	+45.80

Initial SAR Information - Dec 2006	BY2006 \$M	TY \$M
Program Acquisition Cost	1298.2	1411.7

Unit Cost PAUC Changes

The breach in Program Average Unit Cost (PAUC) is caused by a reduction in production quantities and the use of an incorrect average unit cost as a basis of estimate in the 2006 Acquisition Program Baseline. President's Budget 2010 (PB-10) eliminated the units for the Anti-Submarine Warfare (ASW) Mission Package for the Littoral Combat Ship (LCS) reducing the number of RMMV production units to 52. (APB baseline quantity is 106 RMMVs.) An additional contributing factor to the PAUC breach is the increased RDT&E costs from the Reliability Growth Plan (RGP). An Independent Cost Estimate is currently underway and the Program Office plans to submit an updated APB to reflect revised cost estimates once USD AT&L Certification is complete.

Unit Cost APUC Changes

The breach in Average Program Unit Cost (APUC) is caused by a reduction in production quantities and the use of an incorrect average unit cost as a basis of estimate in the 2006 Acquisition Program Baseline (APB). President's Budget 2010 (PB-10) eliminated the units for the Anti-Submarine Warfare (ASW) Mission Package for the Littoral Combat Ship (LCS) reducing the number of RMMV production units to 52. (APB baseline quantity is 106 RMMVs.) An Independent Cost

Estimate is currently underway and the Program Office plans to submit an updated APB to reflect revised cost estimates once USD AT&L Certification is complete.

Impact of Performance or Schedule Changes

At the Operational Test Readiness Review in September 2008, PEO LMW scaled back the Operational Evaluation (OPEVAL) on board DDG-96 to an Operational Assessment (OA) based on readiness concerns. The OPEVAL milestone as delineated in the approved Acquisition Program Baseline (APB April 2008) was breached causing all subsequent milestones to be breached. During the OA, September 14-26, 2008, The Remote Multi-Mission Vehicle (RMMV) did not successfully achieve the Operational Availability (Ao) Key Performance Parameter (KPP) or the Mean Time Between Operational Mission Failures (MTBOMF) reliability parameter resulting in an APB performance breach for the Ao KPP. A Reliability Growth Plan (RGP) was developed and is currently being implemented to address the reliability performance issues and improve the reliability of the vehicle. The Research, Development, Test & Evaluation (RDT&E) cost of the RGP has contributed to the breach in costs. The Program Office plans to submit an updated APB to reflect revised milestones and performance parameters once USD AT&L Certification is complete.

Program Management or Control

Restructuring Program Office for improved management and control. Developed and implemented Integrated Master Schedule (IMS) to plan, execute and track the Reliability Growth Program (RGP) . Planning for a competitive Firm Fixed Price (FFP) Full Rate Production Contract.

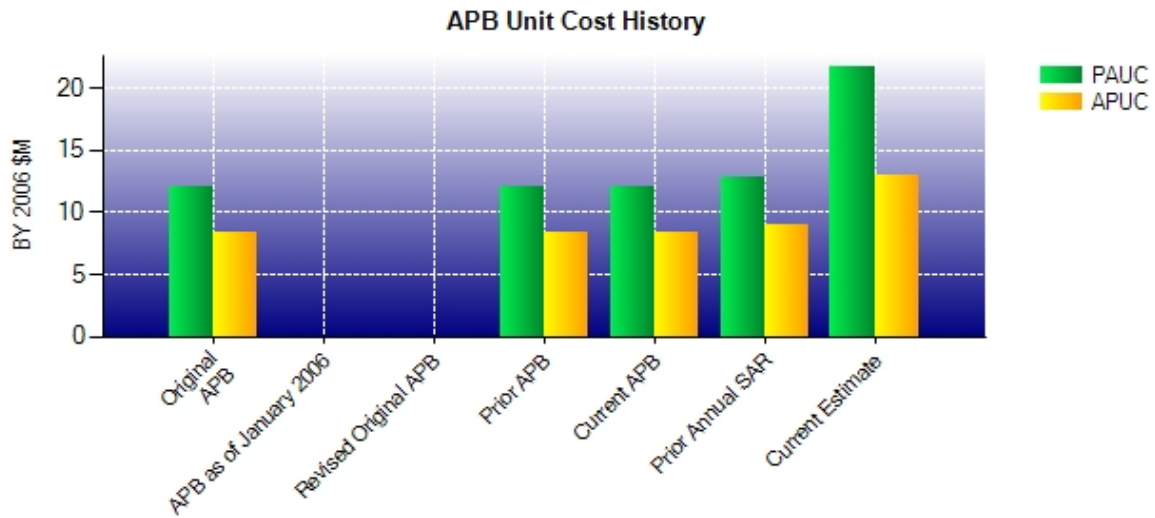
Cost Control Actions

An Memorandum of Agreement (MOA) between Program Office and DCMA has been implemented to monitor Contractor progress against cost and schedule of the Reliability Growth Program (RGP).

Nunn-McCurdy Comments

SECNAV notified Congress on December 17, 2009 of a Critical Nunn-McCurdy Breach in PAUC and APUC. Program Office is currently supporting the USD(AT&L) Certification Process. USD(AT&L) review is planned to be completed by June 1, 2010.

Unit Cost History



Item	Date	BY 2006 \$M		TY \$M	
		PAUC	APUC	PAUC	APUC
Original APB	Oct 2006	12.080	8.364	12.957	9.572
APB as of January 2006	N/A	N/A	N/A	N/A	N/A
Revised Original APB	N/A	N/A	N/A	N/A	N/A
Prior APB	Oct 2006	12.080	8.364	12.957	9.572
Current APB	Apr 2008	12.080	8.364	12.957	9.572
Prior Annual SAR	Dec 2007	12.773	9.017	14.349	10.900
Current Estimate	Dec 2009	21.689	12.931	24.194	15.892

SAR Unit Cost History

Current SAR Baseline to Current Estimate (TY \$M)									
Initial PAUC Production Estimate	Changes								PAUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
12.957	-0.722	3.261	2.987	-0.204	4.367	0.000	1.548	11.237	24.194

Current SAR Baseline to Current Estimate (TY \$M)									
Initial APUC Production Estimate	Changes								APUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
9.572	-0.752	-0.130	2.938	0.000	2.656	0.000	1.608	6.320	15.892

SAR Baseline History				
Item	SAR Planning Estimate	SAR Development Estimate	SAR Production Estimate	Current Estimate
Milestone I	N/A	N/A	N/A	N/A
Milestone II	N/A	N/A	Dec 1999	Dec 1999
Milestone C	N/A	N/A	Jul 2005	Jul 2005
IOC	N/A	N/A	Sep 2007	Jun 2014
Total Cost (TY \$M)	N/A	N/A	1399.4	1306.5
Total Quantity	N/A	N/A	108	54
PAUC	N/A	N/A	12.957	24.194

Cost Variance

Summary TY \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Production Estimate)	384.8	1014.6	--	1399.4
Previous Changes				
Economic	-0.2	-2.7	--	-2.9
Quantity	--	+11.3	--	+11.3
Schedule	+8.5	+140.1	--	+148.6
Engineering	--	--	--	--
Estimating	+1.2	+4.4	--	+5.6
Other	--	--	--	--
Support	--	-12.3	--	-12.3
Subtotal	+9.5	+140.8	--	+150.3
Current Changes				
Economic	+0.3	-36.4	--	-36.1
Quantity	--	-534.9	--	-534.9
Schedule	--	+12.7	--	+12.7
Engineering	-11.0	--	--	-11.0
Estimating	+96.5	+133.7	--	+230.2
Other	--	--	--	--
Support	--	+95.9	--	+95.9
Subtotal	+85.8	-329.0	--	-243.2
Total Changes	+95.3	-188.2	--	-92.9
Current Estimate	480.1	826.4	--	1306.5

Summary BY 2006 \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Production Estimate)	418.0	886.6	--	1304.6
Previous Changes				
Economic	--	--	--	--
Quantity	--	-3.7	--	-3.7
Schedule	+8.2	+80.3	--	+88.5
Engineering	--	--	--	--
Estimating	-2.5	+3.5	--	+1.0
Other	--	--	--	--
Support	--	-10.9	--	-10.9
Subtotal	+5.7	+69.2	--	+74.9
Current Changes				
Economic	--	--	--	--
Quantity	--	-430.8	--	-430.8
Schedule	--	-39.4	--	-39.4
Engineering	-10.8	--	--	-10.8
Estimating	+85.9	+120.8	--	+206.7
Other	--	--	--	--
Support	--	+66.0	--	+66.0
Subtotal	+75.1	-283.4	--	-208.3
Total Changes	+80.8	-214.2	--	-133.4
Current Estimate	498.8	672.4	--	1171.2

Previous Estimate: December 2007

RDT&E	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	+0.3
Correction to remove Sea Talon Anti-Submarine Warfare (ASW) funding from actual FY06 RMS Funding. (Engineering)	-10.8	-11.0
Adjustment for current and prior escalation. (Estimating)	-0.3	-0.3
Additional funding beyond FY08 for Reliability Growth Program. (Estimating)	+86.1	+96.7
Revision to reflect actual cost for FY07 (Estimating)	+0.1	+0.1
RDT&E Subtotal	+75.1	+85.8

Procurement	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-36.4
Total Quantity variance resulting from a decrease of 54 vehicles from 106 to 52. (Subtotal)	-455.8	-565.7
Quantity variance resulting from a decrease of 54 vehicles from 106 to 52. (Quantity)	(-430.8)	(-534.9)
Allocation to Schedule resulting from Quantity change. (Schedule) (QR)	(-24.3)	(-29.9)
Allocation to Estimating resulting from Quantity change. (Estimating) (QR)	(-0.7)	(-0.9)
Delay of procurement due to Operational Availability issues. Full Rate Procurement start delayed from 2009 to 2013. Procurement completion delayed from 2020 to 2024. (Schedule)	-15.1	-10.4
Shifting (delay) of procurement buy profile due to Operational Availability issues. Full Rate Procurement start delayed from 2009 to 2013 and procurement completion delayed from 2020 to 2024. (Schedule)	0.0	+53.0
Additional estimated cost of the Remote Multi-mission Vehicle (RMMV) production vehicles due to the reduction of procurement vehicles from 106 to 52 and the rephasing of those procurements. (Estimating)	+107.4	+131.1
Adjustment for current and prior escalation. (Estimating)	+1.7	+1.9
Revised Flyaway Costs to reflect actual costs for FY05 and FY06 (Estimating)	+2.0	+1.8
Increase in Other Support based on an updated RMS Life Cycle Cost Estimate. (Support)	+66.4	+81.8
Increase in Initial Spares based on updated RMS Life Cycle Cost Estimate and initial spares bought for each procurement. (Support)	+10.0	+13.9
Correction to align support and flyaway. (Subtotal)	0.0	0.0
(Estimating)	(+10.4)	(-0.2)
(Support)	(-10.4)	(+0.2)
Procurement Subtotal	-283.4	-329.0

(QR) Quantity Related

Contracts

Contract Identification

Appropriation: Procurement
Contract Name: AN/WLD-1(V)1 RMS LRIP
Contractor: Lockheed Martin
Contractor Location: West Palm Beach, FL 33404
Contract Number: N00024-05-C-6327
Contract Type: Firm Fixed Price (FFP)
Award Date: September 30, 2005
Definitization Date: October 20, 2006

Contract Price

Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
30.2	N/A	3	112.9	N/A	8	112.9	112.9

Cost and Schedule Variance Explanations

Cost and Schedule Variance reporting is not required on this (FFP) contract.

Notes

The Target Price has increased from the Initial Contract Price due to contract modifications adding additional scope for procuring 5 additional Low Rate Initial Production (LRIP) vehicles as well as additional engineering change proposals (ECPs) and engineering services. The "Initial Target Price" of \$30.2M was based on the procurement of three Low Rate Initial Production (LRIP) vehicles, ECPs and engineering services. The "Current Target Price" and the "Estimated Price at Completion" is \$112.9M based on the procurement of eight LRIP vehicles, ECPs and engineering services. Current Contract Value is reported as of the last Contract Modification, P00035, December 23, 2009.

Deliveries and Expenditures

Deliveries				
Delivered to Date	Planned to Date	Actual to Date	Total Quantity	Percent Delivered
Development	2	2	2	100.00%
Production	8	7	52	13.46%
Total Program Quantity Delivered	10	9	54	16.67%

Expended and Appropriated (TY \$M)			
Total Acquisition Cost	1306.5	Years Appropriated	15
Expended to Date	505.1	Percent Years Appropriated	51.72%
Percent Expended	38.66%	Appropriated to Date	518.6
Total Funding Years	29	Percent Appropriated	39.69%

Operating and Support Cost

Assumptions and Ground Rules

There is no antecedent system to RMS.

The RMS Life Cycle Cost Estimate (LCCE) is the reference document for this section. The ground rules and assumptions for this section are the same as in the LCCE and are listed as follows:

Ground Rules:

1. All base year costs are shown in Constant Year FY06 dollars.
2. The acquisition approach is as identified in the RMS FY11 President's Budget.
3. All technical, financial, schedule and programmatic inputs are reviewed, at a minimum, by members of either the RMS or stakeholders from PMS403 and Naval Surface Warfare Center, Panama City Division (NSWC-PCD).
4. Actual funded amount was used from FY96 to FY09.
5. Overhaul period is every 3 years.

Assumptions:

1. This estimate covers costs for Remote Multi-Mission Vehicle (RMMV).
2. Upon determination of the First Unit Cost, Learning Curve factor was applied to Production & Deployment (95%) Phases. Due to production break, Learning Curve is reset for FRP units.
3. Contractor Costs are assumed to be loaded through Contractor Fee.
4. The RMS System Design & Development effort was "Cost Plus Incentive Fee"
5. The LRIP Contract was, and the Full Rate Production Contract will be Firm Fixed Price.
6. The Production & Deployment effort assumes Acquisition Program Baseline quantity of 54 RMMVs (2 Engineering Development Models, 8 Low-Rate Initial Production Units and 44 production units).
7. The system life is 20 years.
8. O&S costs are estimated through FY44 in accordance with SAR guidance.

Cost Estimate Reference:

None

Sustainment Strategy:

None

Antecedent Information:

None

Unitized O&S Costs BY2006 \$K			
Cost Element	RMS		No Antecedent System (Antecedent)
	Remote Multi-Mission Vehicle		
Mission Pay & Allowance	0.000		--
Unit Level Consumption	0.000		--
Intermediate Maintenance	60.250		--
Depot Maintenance	358.080		--
Contractor Support	5.110		--
Sustaining Support	492.550		--
Indirect	0.000		--
Other	0.000		--
Total	915.990		--

Unitized Cost Comments:

None

Item	Total O&S Cost \$M			
	RMS			No Antecedent System (Antecedent)
	Current Production APB Objective/Threshold	Current Estimate		
Base Year	2024.6	2227.1	989.3	N/A
Then Year	2933.9	N/A	1505.6	N/A

Total O&S Cost Comment

None

Disposal Estimate Details

Date of Estimate:

Source of Estimate:

Disposal/Demilitarization Total Cost (BY 2006 \$M):