Selected Acquisition Report (SAR)

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

RMS

As of December 31, 2010

Defense Acquisition Management
Information Retrieval
(DAMIR)

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Program Information

Designation And Nomenclature (Popular Name)

Remote Minehunting System

DoD Component

Navy

Responsible Office

Responsible Office

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References

SAR Baseline (Production Estimate)

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

Approved APB

Defense Acquisition Executive Approved Acquisition Program Baseline (APB) dated October 7, 2010

Mission and Description

The AN/WLD-1(V) 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, semi-autonomous, 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 are continuously exchanged between the host platform and the RMMV for command and control and sensor data. The RMMV uses a AN/AQS-20A Variable Depth Sonar (VDS) for detection, classification, and localization of mine-like contacts and mine identification. The RMMV is capable of real-time communications 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 ships Mine Warfare (MIW) Mission Package.

Executive Summary

On June 1, 2010, the Under Secretary of Defense for Acquisition, Technology and Logistics (USD (AT&L)) issued a Nunn-McCurdy Certification Acquisition Decision Memorandum (ADM) that certified the restructured Remote Minehunting System (RMS) program in accordance with section 2433a of Title 10, United States Code (USC). The ADM designated the RMS program as an Acquisition Category ID program and, as required by section 2433a, the 2005 Milestone (MS) C for the program was rescinded. The ADM provided specific direction and established the expectations necessary for the program to achieve a Milestone C review in the third quarter of FY 2014.

A Reliability Growth Program (RGP) has been fully implemented in accordance with (IAW) the USD(AT&L) ADM dated June 1, 2010. The objective of the RGP is to obtain a minimum of 75 hours Mean Time Between Operational Failure (MTBOMF) for the Remote Multi-mission Vehicle (RMMV) in order to meet the overall system's Operational Availability Key Performance Parameter (KPP). The RGP utilizes a two pronged approach for achieving reliability, Test-Analyze-Fix and Design for Reliability, and includes Critical Systems Reviews (CSRs) and subsequent design reviews, use of predictive reliability tools, and a three-phase in-water testing program. CSR Phase I and Design Review I have been completed. CSR Phase II is currently in progress. A baseline Reliability Growth Curve (RGC) has been developed and presented to the Over-Arching Integrated Product Team (OIPT) on January 13, 2011.

Working Integrated Product Teams (WIPTs) have been chartered and established for Acquisition Strategy (AS WIPT), Systems Engineering (SE WIPT), Logistics (LOG WIPT) and Test & Evaluation (T&E WIPT), including an Integrated Test Team (ITT).

An update to the Acquisition Program Baseline (APB) was approved by USD(AT&L) on October 7, 2010.

The first OIPT Review was held on January 13, 2011. IAW the USD(AT&L) ADM, progress toward achieving the MS C Exit Criteria was briefed as well as results from investigating potential areas for increased RMS maintenance that can be performed onboard LCS without returning to port.

The final Low Rate Initial Production (LRIP) Remote Multi-Mission Vehicle (RMMV) has been delivered since the last report. Eight total approved LRIP RMMVs have been delivered to the Navy.

Three Delivery Orders have been awarded under the sole source Basic Ordering Agreement (BOA) awarded on January 22, 2010 to Lockheed Martin Corporation, Riviera Beach, Florida. Delivery orders under this BOA will support the RMS RGP until a new contract is in place. The USD(AT&L) ADM directed that a new contract be awarded for the remainder of the RMS RGP, to replace the current BOA, not to exceed $150M. This new contract will require completion to performance (reliability) objectives. Contract award is planned for first quarter of FY12.

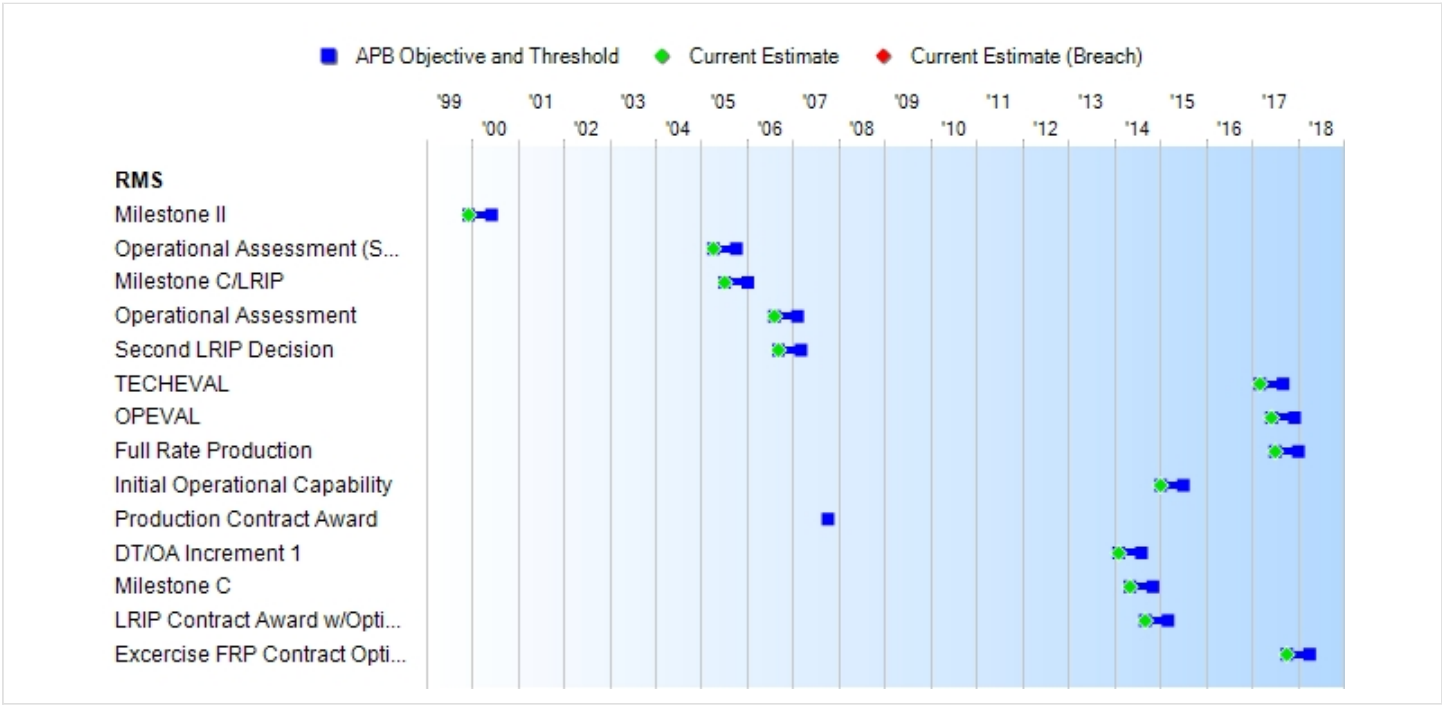
There are no software-related issues for this program at this time.

Threshold Breaches

APB Breaches		
Schedule		☐
Performance		☐
Cost	RDT&E	☐
	Procurement	☐
	MILCON	☐
	Acq O&M	☐
Unit Cost	PAUC	☐
	APUC	☐

Nunn-McCurdy Breaches		
Current UCR Baseline		
	PAUC	None
	APUC	None
Original UCR Baseline		
	PAUC	None
	APUC	None

Schedule



Milestones	SAR Baseline Prod Est	Current APB Development 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	MAR 2017	SEP 2017	MAR 2017	(Ch-1)
OPEVAL	JUN 2007	JUN 2017	DEC 2017	JUN 2017	(Ch-1)
Full Rate Production	OCT 2007	JUL 2017	JAN 2018	JUL 2017	(Ch-1)
Initial Operational Capability	SEP 2007	JAN 2015	JUL 2015	JAN 2015	(Ch-1)
Production Contract Award	OCT 2007	N/A	N/A	N/A	(Ch-2)
DT/OA Increment 1	N/A	FEB 2014	AUG 2014	FEB 2014	(Ch-3)
Milestone C	N/A	MAY 2014	NOV 2014	MAY 2014	(Ch-3)
LRIP Contract Award w/Options for FRP	N/A	SEP 2014	MAR 2015	SEP 2014	(Ch-3)
Excercise FRP Contract Options under LRIP Contract	N/A	OCT 2017	APR 2018	OCT 2017	(Ch-3)

Acronyms And Abbreviations

APB - Acquisition Program Baseline

DT - Developmental Testing
FRP - Full Rate Production
LRIP - Low Rate Initial Production
OA - Operational Assessment
OPEVAL - Operational Evaluation
TECHEVAL - Technical Evaluation

Change Explanations

(Ch-1) Program restructured in accordance with Under Secretary of Defense for Acquisition, Technology and Logistics (USD (AT&L)) Nunn-McCurdy Certification Acquisition Decision Memorandum (ADM) dated June 1, 2010. Current estimate for the Technical Evaluation (TECHEVAL) is changed from April 2013 to March 2017; Operational Evaluation (OPEVAL) is changed from February 2014 to June 2017; Full Rate Production Decision is changed from June 2014 to July 2017; and Initial Operational Capability is changed from June 2014 to January 2015.

(Ch-2) Production Contract Award is no longer a Schedule Milestone and is changed from September 2014 to N/A.

(Ch-3) Program restructured in accordance with USD (AT&L) Nunn-McCurdy Certification ADM dated June 1, 2010. The following Schedule Milestones have been added since the Previous Current Estimate: Developmental Testing (DT)/Operational Assessment (OA) Increment 1 in February 2014; Milestone C in May 2014; Low Rate Initial Production (LRIP) Contract Award w/Options for Full Rate Production (FRP) in September 2014; and Exercise FRP Contract Options under LRIP Contract in October 2017.

Performance

Characteristics	SAR Baseline Prod Est	Current APB Development Objective/Threshold		Demonstrated Performance	Current Estimate	
Transit Speed (kts)	20	20	12	TBD	16	
Operational Availability	.85	.85	0.80	TBD	0.8	(Ch-1)
Water Depth -Shallow						
Mine Type	N/A	Bottom, CCT, CT, IV	Bottom, CCT, CT, IV	TBD	Bottom, CCT, CT, IV	
Water Depth - Deep						
Mine Type	N/A	CCT, CT, IV	CCT, CT, IV	TBD	CCT, CT, IV	

Requirements Source:
Operational Requirements Document, Rev. 2, #670-75-05, dated May 27, 2005.
Under Secretary of Defense for Acquisition, Technology and Logistics (USD(AT&L)) Memorandum, Subject: Nunn-McCurdy Certification Acquisition Decision Memorandum (ADM) for the Remote Minehunting System (RMS) Program, dated June 1, 2010

Acronyms And Abbreviations

CCT - Close-Close Tethered
CT - Close Tethered
IV - In-Volume
kts - knots

Change Explanations

(Ch-0) A Capabilities Development Document (CDD) has entered Navy staffing and has been submitted to the Joint Requirements Oversight Council (JROC) to reflect current Littoral Combat Ship (LCS) Concept of Operations and include Materiel Availability (Am) Key Performance Parameter (KPP) and Materiel Reliability (Rm) Key System Attribute (KSA).

(Ch-1) Current Estimate for Operational Availability (Ao) changed from 0.71 to 0.80 based upon models that validate the Remote Multi-mission Vehicle (RMMV) will achieve 75 hours Mean Time Between Operational Mision Failures (MTBOMF), which validates the system's Ao of 0.80.

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

Track To Budget

RDT&E

APPN 1319	BA 04	PE 0603502N	(Navy)
	Project 0260	Surface and Shallow Water Mine Countermeasures	(Shared)
	Project 9999	RMS Prog - Cong	(Shared)

Congressional Add to continue development of the Remote Minehunting System (RMS) during the RMS reliability growth program.

APPN 1319	BA 04	PE 0603581N	(Navy)
	Project 3129A	MIW Modules Prog - Cong	(Shared)

Funding is provided to research and study methods to employ mine warfare mission modules independently of the LCS platform.

Procurement

APPN 1810	BA 01	PE 0204230N	(Navy)
	ICN 34160000	LCS Modules	(Shared)
APPN 1810	BA 02	PE 0204302N	(Navy)
	ICN 34262200	Minesweeping System Replacement	(Shared)
APPN 1810	BA 08	PE 0204228N	(Navy)
	ICN 34902000	Spares and Repair Parts	(Shared)

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 and Quantity

	BY2006 $M			BY2006 $M	TY $M		
Appropriation	SAR Baseline Prod Est	Current APB Development Objective/Threshold		Current Estimate	SAR Baseline Prod Est	Current APB Development Objective	Current Estimate
RDT&E	418.0	649.6	714.2	647.4	384.8	654.4	654.4
Procurement	886.6	630.0	693.0	631.9	1014.6	795.0	795.0
Flyaway	822.5	--	--	515.8	946.3	--	648.6
Recurring	816.9	--	--	515.8	940.7	--	648.6
Non Recurring	5.6	--	--	0.0	5.6	--	0.0
Support	64.1	--	--	116.1	68.3	--	146.4
Other Support	48.1	--	--	83.1	51.1	--	103.3
Initial Spares	16.0	--	--	33.0	17.2	--	43.1
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	1279.6	N/A	1279.3	1399.4	1449.4	1449.4

On June 1, 2010, the Under Secretary of Defense for Acquisition, Technology and Logistics (USD (AT&L)) issued a Nunn-McCurdy Certification Acquisition Decision Memorandum (ADM) that certified the restructured Remote Minehunting System (RMS) program in accordance with section 2433a of Title 10, United States Code (USC). The USD(AT&L) ADM provided a cost estimate performed by the Director, Cost Assessment and Performance Evaluation (CAPE). The Weapons Systems Acquisition Reform Act (WSARA) of 2009 (Public Law 111-23) requires a justification for selecting a confidence level less than 80 percent. In accordance with the WSARA Act of 2009 and as directed by the USD(AT&L) ADM, the Director, CAPE cost estimate, upon which the Nunn-McCurdy certification was made was based on a confidence level lower than 80 percent. The Director, CAPE estimate is built upon a product-oriented work breakdown structure, based on historical actual cost information to the maximum extent possible, and most importantly, based on assumptions that are consistent with demonstrated contractor and government performance for a series of previous acquisition programs.

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

Cost and Funding

Funding Summary

Appropriation and Quantity Summary
FY2012 President's Budget / December 2010 SAR (TY$ M)

Appropriation	Prior	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	To Complete	Total
RDT&E	411.0	19.7	50.0	39.3	32.3	24.2	19.1	58.8	654.4
Procurement	109.3	5.0	0.0	0.0	0.0	33.3	61.0	586.4	795.0
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 2012 Total	520.3	24.7	50.0	39.3	32.3	57.5	80.1	645.2	1449.4
PB 2011 Total	518.6	24.7	30.2	56.2	44.3	70.0	61.2	501.3	1306.5
Delta	1.7	0.0	19.8	-16.9	-12.0	-12.5	18.9	143.9	142.9

Quantity	Undistributed	Prior	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	To Complete	Total
Development	2	0	0	0	0	0	0	0	0	2
Production	0	8	0	0	0	0	2	4	38	52
PB 2012 Total	2	8	0	0	0	0	2	4	38	54
PB 2011 Total	2	8	0	0	2	2	4	4	32	54
Delta	0	0	0	0	-2	-2	-2	0	6	0

Cost and Funding

Annual Funding By Appropriation

Annual Funding TY$
1319 | RDT&E | Research, Development, Test, and Evaluation, Navy

Fiscal Year	Quantity	End Item Recurring Flyaway TY $M	Non End Item Recurring Flyaway TY $M	Non Recurring Flyaway TY $M	Total Flyaway TY $M	Total Support TY $M	Total Program TY $M
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	--	--	--	--	--	--	21.6
2011	--	--	--	--	--	--	19.7
2012	--	--	--	--	--	--	50.0
2013	--	--	--	--	--	--	39.3
2014	--	--	--	--	--	--	32.3
2015	--	--	--	--	--	--	24.2
2016	--	--	--	--	--	--	19.1
2017	--	--	--	--	--	--	33.6
2018	--	--	--	--	--	--	25.2
Subtotal	**2**	**--**	**--**	**--**	**--**	**--**	**654.4**

Annual Funding BY$
1319 | RDT&E | Research, Development, Test, and Evaluation, Navy

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2006 $M	Non End Item Recurring Flyaway BY 2006 $M	Non Recurring Flyaway BY 2006 $M	Total Flyaway BY 2006 $M	Total Support BY 2006 $M	Total Program BY 2006 $M
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	--	--	--	--	--	--	19.9
2011	--	--	--	--	--	--	17.9
2012	--	--	--	--	--	--	44.7
2013	--	--	--	--	--	--	34.5
2014	--	--	--	--	--	--	27.9
2015	--	--	--	--	--	--	20.6
2016	--	--	--	--	--	--	15.9
2017	--	--	--	--	--	--	27.6
2018	--	--	--	--	--	--	20.3
Subtotal	**2**	**--**	**--**	**--**	**--**	**--**	**647.4**

Annual Funding TY$
1810 | Procurement | Other Procurement, Navy

Fiscal Year	Quantity	End Item Recurring Flyaway TY $M	Non End Item Recurring Flyaway TY $M	Non Recurring Flyaway TY $M	Total Flyaway TY $M	Total Support TY $M	Total Program TY $M
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	--	--	--	--	--	--	--
2011	--	--	--	--	--	5.0	5.0
2012	--	--	--	--	--	--	--
2013	--	--	--	--	--	--	--
2014	--	--	--	--	--	--	--
2015	2	26.0	3.7	--	29.7	3.6	33.3
2016	4	44.2	6.3	--	50.5	10.5	61.0
2017	4	41.7	6.1	--	47.8	10.4	58.2
2018	4	41.6	6.0	--	47.6	10.4	58.0
2019	4	42.0	6.1	--	48.1	10.6	58.7
2020	4	42.7	6.2	--	48.9	10.7	59.6
2021	4	43.5	6.3	--	49.8	10.9	60.7
2022	4	44.3	6.4	--	50.7	11.1	61.8
2023	4	45.3	6.5	--	51.8	11.3	63.1
2024	4	46.2	6.7	--	52.9	11.5	64.4
2025	4	47.2	6.9	--	54.1	11.7	65.8
2026	2	24.0	3.5	--	27.5	8.6	36.1
Subtotal	**52**	**577.9**	**70.7**	**--**	**648.6**	**146.4**	**795.0**

Annual Funding BY$
1810 | Procurement | Other Procurement, Navy

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2006 $M	Non End Item Recurring Flyaway BY 2006 $M	Non Recurring Flyaway BY 2006 $M	Total Flyaway BY 2006 $M	Total Support BY 2006 $M	Total Program BY 2006 $M
2005	3	32.1	--	--	32.1	2.1	34.2
2006	4	44.8	--	--	44.8	11.4	56.2
2007	--	--	--	--	--	--	--
2008	1	10.1	--	--	10.1	3.3	13.4
2009	--	--	--	--	--	2.5	2.5
2010	--	--	--	--	--	--	--
2011	--	--	--	--	--	4.5	4.5
2012	--	--	--	--	--	--	--
2013	--	--	--	--	--	--	--
2014	--	--	--	--	--	--	--
2015	2	21.9	3.1	--	25.0	3.0	28.0
2016	4	36.5	5.2	--	41.7	8.7	50.4
2017	4	33.9	5.0	--	38.9	8.4	47.3
2018	4	33.2	4.8	--	38.0	8.3	46.3
2019	4	33.0	4.8	--	37.8	8.3	46.1
2020	4	33.0	4.8	--	37.8	8.2	46.0
2021	4	33.0	4.8	--	37.8	8.3	46.1
2022	4	33.1	4.8	--	37.9	8.3	46.2
2023	4	33.3	4.8	--	38.1	8.2	46.3
2024	4	33.4	4.8	--	38.2	8.3	46.5
2025	4	33.5	4.9	--	38.4	8.3	46.7
2026	2	16.8	2.4	--	19.2	6.0	25.2
Subtotal	**52**	**461.6**	**54.2**	**--**	**515.8**	**116.1**	**631.9**

Low Rate Initial Production

	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) Low Rate Initial Production (LRIP) units have been approved to date and 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 Cost

None

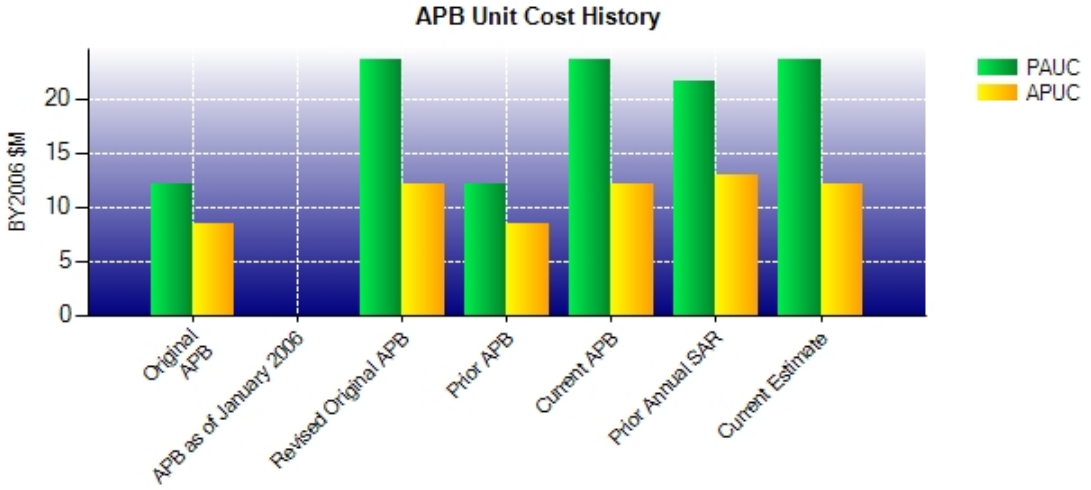
Unit Cost

Unit Cost Report

Unit Cost	BY2006 $M Current UCR Baseline (OCT 2010 APB)	BY2006 $M Current Estimate (DEC 2010 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	1279.6	1279.3	
Quantity	54	54	
Unit Cost	23.696	23.691	-0.02
Average Procurement Unit Cost (APUC)			
Cost	630.0	631.9	
Quantity	52	52	
Unit Cost	12.115	12.152	+0.31

Unit Cost	BY2006 $M Revised Original UCR Baseline (OCT 2010 APB)	BY2006 $M Current Estimate (DEC 2010 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	1279.6	1279.3	
Quantity	54	54	
Unit Cost	23.696	23.691	-0.02
Average Procurement Unit Cost (APUC)			
Cost	630.0	631.9	
Quantity	52	52	
Unit Cost	12.115	12.152	+0.31

Unit Cost History



		BY2006 $M		TY $M	
	Date	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	OCT 2010	23.696	12.115	26.841	15.288
Prior APB	APR 2008	12.080	8.364	12.957	9.572
Current APB	OCT 2010	23.696	12.115	26.841	15.288
Prior Annual SAR	DEC 2009	21.689	12.931	24.194	15.892
Current Estimate	DEC 2010	23.691	12.152	26.841	15.288

SAR Unit Cost History

Current SAR Baseline to Current Estimate (TY $M)

Initial PAUC Prod Est	Changes								PAUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
12.957	-0.752	3.262	2.950	0.454	6.344	0.000	1.626	13.884	26.841

Current SAR Baseline to Current Estimate (TY $M)

Initial APUC Prod Est	Changes								APUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
9.572	-0.783	-0.129	3.238	0.000	1.702	0.000	1.688	5.716	15.288

SAR Baseline History

Item/Event	SAR Planning Estimate (PE)	SAR Development Estimate (DE)	SAR Production Estimate (PdE)	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	MAY 2014
IOC	N/A	N/A	SEP 2007	JAN 2015
Total Cost (TY $M)	N/A	N/A	1399.4	1449.4
Total Quantity	N/A	N/A	108	54
Prog. Acq. Unit Cost (PAUC)	N/A	N/A	12.957	26.841

Cost Variance

Cost Variance Summary

Summary Then Year $M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Prod Est)	384.8	1014.6	--	1399.4
Previous Changes				
Economic	+0.1	-39.1	--	-39.0
Quantity	--	-523.6	--	-523.6
Schedule	+8.5	+152.8	--	+161.3
Engineering	-11.0	--	--	-11.0
Estimating	+97.7	+138.1	--	+235.8
Other	--	--	--	--
Support	--	+83.6	--	+83.6
Subtotal	+95.3	-188.2	--	-92.9
Current Changes				
Economic	--	-1.6	--	-1.6
Quantity	--	--	--	--
Schedule	-17.6	+15.6	--	-2.0
Engineering	+35.5	--	--	+35.5
Estimating	+156.4	-49.6	--	+106.8
Other	--	--	--	--
Support	--	+4.2	--	+4.2
Subtotal	+174.3	-31.4	--	+142.9
Total Changes	+269.6	-219.6	--	+50.0
CE - Cost Variance	654.4	795.0	--	1449.4
CE - Cost & Funding	654.4	795.0	--	1449.4

Summary Base Year 2006 $M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Prod Est)	418.0	886.6	--	1304.6
Previous Changes				
Economic	--	--	--	--
Quantity	--	-434.5	--	-434.5
Schedule	+8.2	+40.9	--	+49.1
Engineering	-10.8	--	--	-10.8
Estimating	+83.4	+124.3	--	+207.7
Other	--	--	--	--
Support	--	+55.1	--	+55.1
Subtotal	+80.8	-214.2	--	-133.4
Current Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	-15.1	--	--	-15.1
Engineering	+29.5	--	--	+29.5
Estimating	+134.2	-37.4	--	+96.8
Other	--	--	--	--
Support	--	-3.1	--	-3.1
Subtotal	+148.6	-40.5	--	+108.1
Total Changes	+229.4	-254.7	--	-25.3
CE - Cost Variance	647.4	631.9	--	1279.3
CE - Cost & Funding	647.4	631.9	--	1279.3

Previous Estimate: December 2009

RDT&E	$M	
Current Change Explanations	**Base Year**	**Then Year**
Decrease in funds in FY14-FY16 for Pre-Planned Product Improvement (P3I). (Schedule)	-15.1	-17.6
Reliability Growth Program (RGP) Contractor Redesign of vehicle in FY11-FY12 based on Director, Cost Assessment and Performance Evaluation (CAPE) estimate provided by Under Secretary of Defense for Acquisition, Technology & Logistics (USD(AT&L)) Acquisition Decision Memorandum (ADM) dated June 1, 2010. (Engineering)	+7.1	+7.9
Increase in funds in FY17-FY18 for P3I. (Engineering)	+22.4	+27.6
Decrease in funding in FY10-FY11 for RGP. (Estimating)	-7.4	-8.0
Decrease in funding in FY10-FY12 used to conduct accelerated life testing as part of the RGP. (Estimating)	-11.5	-12.8
Decrease in funding in FY10-FY12 to provide engineering, logistics, and programmatic support for vehicle accelerated life and confidence testing. (Estimating)	-4.1	-4.5
Decrease in funding in FY10-FY12 for Program Managment and travel for vehicle spiral testing. (Estimating)	-0.9	-1.0
Decrese in funding in FY12 to conduct shock/vibration testing, acoustic/magnetic testing and conduct reliability assessment in FY12 in advance of Littoral Combat Ship (LCS) Developmental Testing (DT) and Operational Testing (OT) in FY12. (Estimating)	-6.4	-7.2
Decrease in funding in FY13 to conduct DT. (Estimating)	-7.3	-8.3
Decrease in FY13 to complete System Reliability Testing and preparations for Full Rate Production (FRP) Competition for Contract Award in FY14. (Estimating)	-10.9	-12.4
Increase in funding for RGP Contractor vehicle upgrade in FY10-FY18 based on Director, CAPE estimate provided by USD(AT&L) ADM. (Estimating)	+80.3	+92.0
Increase in funding for RGP Government costs in FY10-FY18 based on Director, CAPE estimate provided by USD(AT&L) ADM. (Estimating)	+101.7	+117.8
Estimating difference in FY12 based on Director, CAPE estimate provided by USD (AT&L) ADM. (Estimating)	+0.7	+0.8
RDT&E Subtotal	+148.6	+174.3

Procurement	$M	
Current Change Explanations	**Base Year**	**Then Year**
Revised escalation indices. (Economic)	N/A	-1.6
Delay of procurement based on Director, CAPE estimate provided by USD(AT&L) ADM on June 1, 2010. Full Rate Production (FRP) start delayed from FY14 to FY17. Second Low Rate Initial Production (LRIP) planned for FY15 to FY17. Procurement completion delayed from 2024 to 2026. (Schedule)	0.0	+15.6
Differences in estimated End Item Recurring Flyaway Costs in FY15-FY24 based on Director, CAPE estimate provided by USD(AT&L) ADM. (Estimating)	-79.3	-102.8
Corrections to DAMIR calculated Schedule variances in FY25-FY26 based on Director, CAPE estimate provided by USD(AT&L) ADM. (Estimating)	-14.4	-20.1
Contractor Fee identified in FY15-FY26 based on Director, CAPE estimate provided by USD(AT&L) ADM. (Estimating)	+54.1	+70.7
Estimating differences in FY13-FY14 and FY17-FY24 based on Director, CAPE estimate provided by USD(AT&L) ADM. (Estimating)	+2.2	+2.6

Adjustment for current and prior escalation. (Support)	+0.1	+0.1
Increase in Initial Spares in FY15-FY26 based on Director, CAPE estimate provided by USD(AT&L) ADM. (Subtotal)	+15.7	+21.1
Increase in Initial Spares based on Director, CAPE estimate provided by USD (AT&L) ADM. (Support)	(+17.5)	(+23.1)
Decrease in Initial Spares based on Director, CAPE estimate provided by USD (AT&L) ADM. (Support)	(-1.8)	(-2.0)
Decrease in Other Support.in FY15-FY26 based on Director, CAPE estimate provided by USD(AT&L) ADM. (Subtotal)	-18.9	-17.0
Increase in Other Support based on Director, CAPE estimate provided by USD (AT&L) ADM. (Support)	(+24.3)	(+32.7)
Decrease in Other Support based on Director, CAPE estimate provided by USD (AT&L) ADM. (Support)	(-43.2)	(-49.7)
Procurement Subtotal	-40.5	-31.4

Contracts

Appropriation: Procurement

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

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.

Contract Comments

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, A00037, January 27, 2011.

This is the last time that this contract will be reported as it is 90% complete.

Deliveries and Expenditures

Deliveries To Date	Plan To Date	Actual To Date	Total Quantity	Percent Delivered
Development	2	2	2	100.00%
Production	8	8	52	15.38%
Total Program Quantities Delivered	10	10	54	18.52%

Expenditures and Appropriations (TY $M)			
Total Acquisition Cost	1449.4	Years Appropriated	16
Expenditures To Date	526.6	Percent Years Appropriated	51.61%
Percent Expended	36.33%	Appropriated to Date	545.0
Total Funding Years	31	Percent Appropriated	37.60%

Total Expenditures as of February 28, 2011.

Operating and Support Cost

Assumptions And Ground Rules

There is no antecedent system to RMS.

Ground Rules:
1. All base year costs are shown in Constant Year FY06 dollars.
2. The acquisition approach is as identified by the Cost Assessment and Program Evaluation Office (CAPE).
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, 18 Low-Rate Initial Production Units and 34 production units).
7. The system life is 20 years.
8. O&S costs are estimated through FY48.

Costs BY2006 $K		
Cost Element	**RMS Remote Multi-Mission Vehicle**	**No Antecedent System**
Unit-Level Manpower	0.00	--
Unit Operations	12.25	--
Maintenance	444.60	--
Sustaining Support	63.55	--
Continuing System Improvements	80.55	--
Indirect Support	0.00	--
Other	0.00	--
Total Unitized Cost (Base Year 2006 $)	600.95	--

Total O&S Costs $M	RMS	No Antecedent System
Base Year	649.0	--
Then Year	1109.0	--