Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-191

MH-60R

As of December 31, 2011

Defense Acquisition Management
Information Retrieval
(DAMIR)

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Program Information

Designation And Nomenclature (Popular Name)

MH-60R Multi-Mission Helicopter (MH-60R)

DoD Component

Navy

Responsible Office

Responsible Office

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Date Assigned July 28, 2011

References

SAR Baseline (Production Estimate)

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated March 22, 2006

Approved APB

Navy Acquisition Executive (NAE) Approved Acquisition Program Baseline (APB) dated November 29, 2010

Mission and Description

The MH-60R primary mission areas include Anti-Submarine Warfare (ASW) and Surface Warfare (SUW). Secondary mission areas include Search and Rescue (SAR), Vertical Replenishment (VERTREP), Naval Surface Fire Support (NSFS), logistics support, personnel transport, Medical Evacuation (MEDEVAC), and VHF/UHF/Link Communication Relay (COMREL). The MH-60R is the central component of the "Navy Helicopter Master Plan" and the Chief of Naval Operations (CNO) approved Helicopter Concept of Operations (CONOPS) that replaces the aging SH-60B and SH-60F helicopters. The avionics upgrades over the existing SH-60B/F include: a glass cockpit common with the MH-60S; Airborne Low Frequency Sonar (ALFS) as a long range active dipping sonar; Electronic Support Measures (ESM) with expanded frequency coverage and location detection; Multi-Mode Radar (MMR) with long range search, periscope detection, and imaging Inverse Synthetic Aperture Radar (ISAR); Forward Looking Infra-Red (FLIR) for imaging and laser target designation; Acoustic Processor (AP) for processing ALFS and sonobuoys; Integrated Self Defense (ISD); and the Mission Planning System (MPS). MH-60R sensors and real-time exchange of tactical data with the host ship will bring a new dimension of battle space control to the Naval Commander.

Executive Summary

A total of 122 MH-60R aircraft have been delivered to the Fleet as of February 29, 2012. To date, seven MH-60R squadrons have been established or transitioned from SH-60Bs. The fourth MH-60R operational deployment is currently underway. Full Rate Production (FRP) deliveries to the Fleet continue on-schedule in support of additional squadron stand-ups and transitions.

The FY 2012 National Defense Authorization Act and Consolidated Appropriations Act included Congressional authority to enter into the MH-60R/S Mission Systems and Common Cockpit Multiyear Procurement (MYP) contract (MY2) FY 2012-2016 as well as airframes for Army UH-60M/HH-60M helicopters and Navy MH-60R/MH-60S helicopters MYP contract (MY8) FY 2012-2016.

The MH-60R/S Mission Systems and Common Cockpit MY2 contract with Lockheed Martin Mission Systems and Sensors (LM MS2) is scheduled to be awarded in the second quarter of FY 2012. The MH-60R/S Airframe MY8 contract with Sikorsky Aircraft Corporation (SAC) is scheduled to be awarded in the third quarter of FY 2012.

System Development and Demonstration (SDD) of the Automatic Radar Periscope Detection and Discrimination (ARPDD) program continued. Two Integrated Test (IT) periods were successfully completed and another IT period commenced December 07, 2011 and is scheduled to complete in March 2012. The Operational Test is scheduled to begin in May 2012 and the program is on track for Initial Operating Capability (IOC) in July 2013.

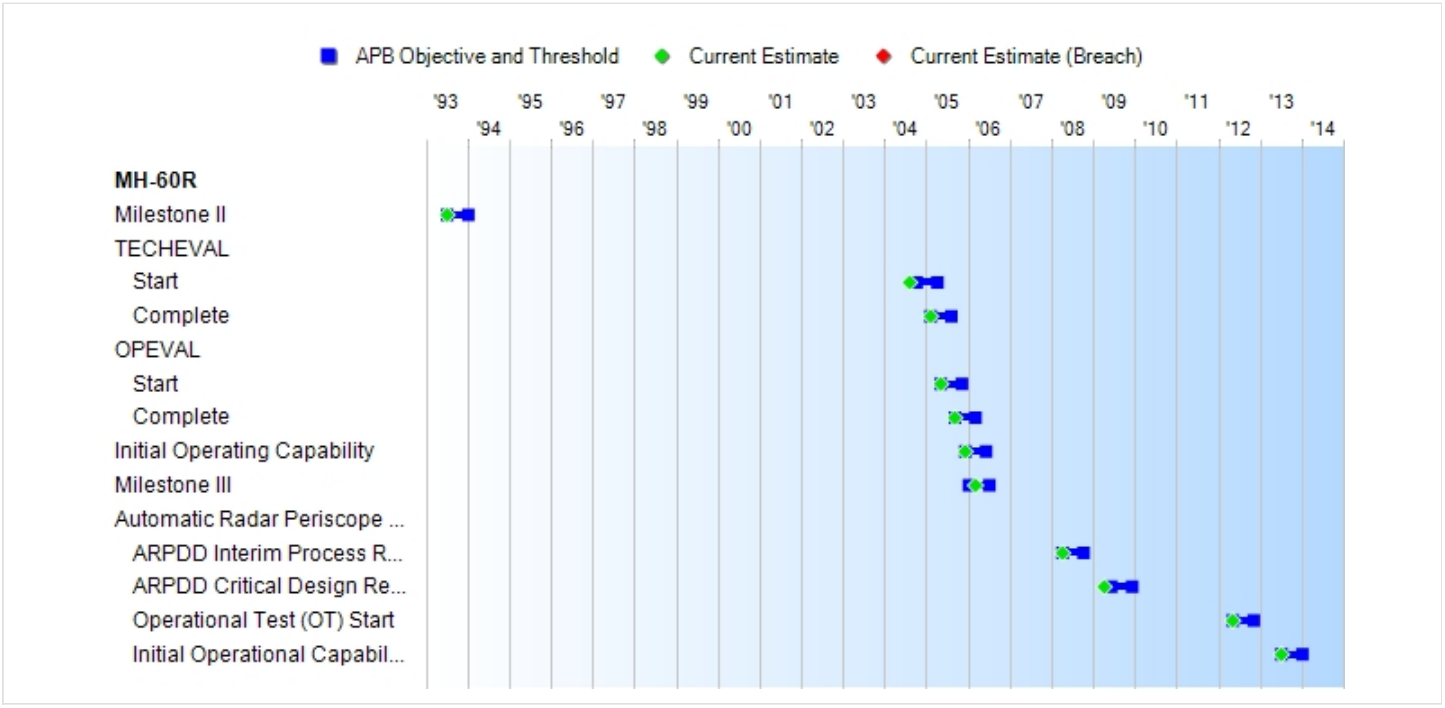
There are no significant software-related issues with this program at this time.

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 Production Objective/Threshold		Current Estimate
Milestone II	JUL 1993	JUL 1993	JAN 1994	JUL 1993
TECHEVAL				
Start	OCT 2004	OCT 2004	APR 2005	AUG 2004
Complete	FEB 2005	FEB 2005	AUG 2005	FEB 2005
OPEVAL				
Start	MAY 2005	MAY 2005	NOV 2005	MAY 2005
Complete	SEP 2005	SEP 2005	MAR 2006	SEP 2005
Initial Operating Capability	DEC 2005	DEC 2005	JUN 2006	DEC 2005
Milestone III	JAN 2006	JAN 2006	JUL 2006	MAR 2006
Automatic Radar Periscope Detection and Discriminator (ARPDD)				
ARPDD Interim Process Review (IPR) (System Design Development (SDD) Award)	N/A	APR 2008	OCT 2008	APR 2008
ARPDD Critical Design Review (CDR)	N/A	JUN 2009	DEC 2009	APR 2009
Operational Test (OT) Start	N/A	MAY 2012	NOV 2012	MAY 2012
Initial Operational Capability (IOC)	N/A	JUL 2013	JAN 2014	JUL 2013

Acronyms And Abbreviations

OPEVAL - Operational Evaluation
TECHEVAL - Technical Evaluation

Change Explanations

None

Performance

Characteristics	SAR Baseline Prod Est	Current APB Production Objective/Threshold		Demonstrated Performance	Current Estimate
Availability (%): Mission Capable	82	82	70	82.3%	82%
Net Ready: All interfaces, services, policy-enforcement, controls, and data-sharing of the NCOW RM and GIG-KIPs will be satisfied to the requirements of the specific Joint integrated architecture products (including data correctness, data availability, and data processing), and information assurance accreditation specified in the threshold and objective values.	100% of requirements	100% of requirements	100% of enterprise - level or critical requirements	100% of enterprise - level or critical requirements	100% of enterprise - level or critical requirements
Crew Protection: Crashworthiness, Crew Restraint, and Egress	Crew Seating 35/25/20G, Passenger 20/20/20	Crew Seating 35/25/20G, Passenger 20/20/20	Crew Seating 20/20/20G, Passenger 14/13/12G	Crew Seating 20/20/20G, Passenger 14/13/12G	Crew Seating 20/20/20G, Passenger 14/13/12G

Requirements Source: Capability Production Document (CPD) Approved by Joint Requirements Oversight Council Memorandum (JROCM) 260-05 on November 28, 2005

Acronyms And Abbreviations

G - Gravitational Force
GIG - Global Information Grid
KIPs - Key Interface Profiles
NCOW RM - Net-Centric Operations & Warfare Reference Model

Change Explanations

None

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

Track To Budget

RDT&E				
APPN 1319	BA 05	PE 0604212N	(Navy)	
	Project H2412	ASW & OTHER HELO DEVELOPMENT/MH-60R LAMPS		(Sunk)
APPN 1319	BA 05	PE 0604216N	(Navy)	
	Project 1707	MULTI-MISSION HELO UPGRADE DEVELOPMENT/MH-60R		
	Project H9215	MULTI-MISSION HELO UPGRADE DEVELOPMENT/MH-60 PMLCC		(Sunk)
Procurement				
APPN 1506	BA 01	PE 0204243N	(Navy)	
	ICN 018200	MH-60R		
APPN 1506	BA 06	PE 0204243N	(Navy)	
	ICN 0605		(Shared)	

Cost and Funding

Cost Summary

Total Acquisition Cost and Quantity

	BY2006 $M			BY2006 $M	TY $M		
Appropriation	SAR Baseline Prod Est	Current APB Production Objective/Threshold		Current Estimate	SAR Baseline Prod Est	Current APB Production Objective	Current Estimate
RDT&E	1519.0	1718.9	1890.8	1818.2	1375.7	1570.4	1678.7
Procurement	9108.0	11360.2	12495.9	11263.6	10049.0	12573.5	12578.6
Flyaway	7386.3	--	--	9546.1	8176.2	--	10707.3
Recurring	6726.4	--	--	8311.7	7471.0	--	9348.3
Non Recurring	659.9	--	--	1234.4	705.2	--	1359.0
Support	1721.7	--	--	1717.5	1872.8	--	1871.3
Other Support	1535.1	--	--	1434.3	1682.7	--	1573.1
Initial Spares	186.6	--	--	283.2	190.1	--	298.2
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	10627.0	13079.1	N/A	13081.8	11424.7	14143.9	14257.3

Confidence Level For the Current APB Cost is 50% - The current APB cost estimate provided sufficient resources to execute the program under normal conditions, encountering average levels of technical, schedule and programmatic risk and external interference. It was consistent with average resource expenditures on historical efforts of similar size, scope, and complexity and represents a notional 50% confidence level.

Quantity	SAR Baseline Prod Est	Current APB Production	Current Estimate
RDT&E	2	2	2
Procurement	252	298	289
Total	254	300	291

Cost and Funding

Funding Summary

Appropriation and Quantity Summary
FY2013 President's Budget / December 2011 SAR (TY$ M)

Appropriation	Prior	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	To Complete	Total
RDT&E	1645.8	17.5	6.9	3.6	4.9	0.0	0.0	0.0	1678.7
Procurement	7077.3	1012.7	843.1	985.8	1211.8	1365.2	82.7	0.0	12578.6
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 2013 Total	8723.1	1030.2	850.0	989.4	1216.7	1365.2	82.7	0.0	14257.3
PB 2012 Total	8726.7	1045.9	986.8	1067.3	1138.4	1351.3	83.5	0.0	14399.9
Delta	-3.6	-15.7	-136.8	-77.9	78.3	13.9	-0.8	0.0	-142.6

Quantity	Undistributed	Prior	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	To Complete	Total
Development	2	0	0	0	0	0	0	0	0	2
Production	0	158	24	19	19	31	38	0	0	289
PB 2013 Total	2	158	24	19	19	31	38	0	0	291
PB 2012 Total	2	158	24	24	24	31	37	0	0	300
Delta	0	0	0	-5	-5	0	1	0	0	-9

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
1990	--	--	--	--	--	--	10.2
1991	--	--	--	--	--	--	28.5
1992	--	--	--	--	--	--	53.0
1993	--	--	--	--	--	--	72.7
1994	--	--	--	--	--	--	70.7
1995	--	--	--	--	--	--	70.0
1996	--	--	--	--	--	--	65.1
1997	--	--	--	--	--	--	55.2
1998	--	--	--	--	--	--	85.3
1999	--	--	--	--	--	--	209.0
2000	--	--	--	--	--	--	110.1
2001	--	--	--	--	--	--	77.8
2002	--	--	--	--	--	--	133.7
2003	--	--	--	--	--	--	89.9
2004	--	--	--	--	--	--	81.9
2005	--	--	--	--	--	--	80.1
2006	--	--	--	--	--	--	57.8
2007	--	--	--	--	--	--	28.9
2008	--	--	--	--	--	--	74.2
2009	--	--	--	--	--	--	67.9
2010	--	--	--	--	--	--	69.4
2011	--	--	--	--	--	--	54.4
2012	--	--	--	--	--	--	17.5
2013	--	--	--	--	--	--	6.9
2014	--	--	--	--	--	--	3.6
2015	--	--	--	--	--	--	4.9
Subtotal	**2**	**--**	**--**	**--**	**--**	**--**	**1678.7**

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
1990	--	--	--	--	--	--	13.7
1991	--	--	--	--	--	--	36.8
1992	--	--	--	--	--	--	66.6
1993	--	--	--	--	--	--	89.2
1994	--	--	--	--	--	--	85.2
1995	--	--	--	--	--	--	82.7
1996	--	--	--	--	--	--	75.7
1997	--	--	--	--	--	--	63.4
1998	--	--	--	--	--	--	97.1
1999	--	--	--	--	--	--	235.3
2000	--	--	--	--	--	--	122.1
2001	--	--	--	--	--	--	85.1
2002	--	--	--	--	--	--	144.9
2003	--	--	--	--	--	--	96.0
2004	--	--	--	--	--	--	85.1
2005	--	--	--	--	--	--	81.1
2006	--	--	--	--	--	--	56.7
2007	--	--	--	--	--	--	27.7
2008	--	--	--	--	--	--	69.8
2009	--	--	--	--	--	--	63.1
2010	--	--	--	--	--	--	63.5
2011	--	--	--	--	--	--	48.8
2012	--	--	--	--	--	--	15.4
2013	--	--	--	--	--	--	6.0
2014	--	--	--	--	--	--	3.1
2015	--	--	--	--	--	--	4.1
Subtotal	**2**	**--**	**--**	**--**	**--**	**--**	**1818.2**

Annual Funding TY$
1506 | Procurement | Aircraft 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
2000	5	175.9	--	25.8	201.7	35.3	237.0
2001	--	--	--	44.7	44.7	7.3	52.0
2002	--	--	--	11.2	11.2	3.8	15.0
2003	--	32.5	--	36.5	69.0	52.4	121.4
2004	4	168.4	--	68.4	236.8	108.7	345.5
2005	6	204.0	--	71.4	275.4	155.4	430.8
2006	12	394.8	--	58.2	453.0	204.0	657.0
2007	25	714.7	--	71.9	786.6	131.3	917.9
2008	28	868.9	--	95.2	964.1	115.6	1079.7
2009	30	924.8	--	121.7	1046.5	146.4	1192.9
2010	24	674.1	--	104.2	778.3	176.4	954.7
2011	24	732.8	--	110.5	843.3	230.1	1073.4
2012	24	844.0	--	69.0	913.0	99.7	1012.7
2013	19	711.5	--	78.4	789.9	53.2	843.1
2014	19	801.8	--	111.1	912.9	72.9	985.8
2015	31	1032.0	--	109.3	1141.3	70.5	1211.8
2016	38	1068.1	--	171.5	1239.6	125.6	1365.2
2017	--	--	--	--	--	82.7	82.7
Subtotal	**289**	**9348.3**	**--**	**1359.0**	**10707.3**	**1871.3**	**12578.6**

Annual Funding BY$
1506 | Procurement | Aircraft 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
2000	5	192.9	--	28.3	221.2	38.7	259.9
2001	--	--	--	48.4	48.4	7.9	56.3
2002	--	--	--	12.0	12.0	4.1	16.1
2003	--	34.1	--	38.3	72.4	55.0	127.4
2004	4	172.1	--	69.9	242.0	111.2	353.2
2005	6	202.8	--	71.0	273.8	154.5	428.3
2006	12	381.9	--	56.3	438.2	197.3	635.5
2007	25	675.6	--	68.0	743.6	124.1	867.7
2008	28	809.2	--	88.7	897.9	107.6	1005.5
2009	30	849.2	--	111.7	960.9	134.5	1095.4
2010	24	607.7	--	93.9	701.6	159.1	860.7
2011	24	648.9	--	97.8	746.7	203.8	950.5
2012	24	734.7	--	60.1	794.8	86.8	881.6
2013	19	609.0	--	67.1	676.1	45.5	721.6
2014	19	674.3	--	93.4	767.7	61.3	829.0
2015	31	852.5	--	90.4	942.9	58.2	1001.1
2016	38	866.8	--	139.1	1005.9	102.0	1107.9
2017	--	--	--	--	--	65.9	65.9
Subtotal	**289**	**8311.7**	**--**	**1234.4**	**9546.1**	**1717.5**	**11263.6**

Cost Quantity Information
1506 | Procurement | Aircraft Procurement, Navy

Fiscal Year	Quantity	End Item Recurring Flyaway (Aligned with Quantity) BY 2006 $M
2000	5	192.9
2001	--	--
2002	--	--
2003	--	--
2004	4	169.2
2005	6	170.6
2006	12	326.7
2007	25	686.6
2008	28	781.5
2009	30	857.6
2010	24	633.5
2011	24	641.9
2012	24	665.9
2013	19	632.3
2014	19	603.4
2015	31	949.0
2016	38	1000.6
2017	--	--
Subtotal	**289**	**8311.7**

Low Rate Initial Production

	Initial LRIP Decision	Current Total LRIP
Approval Date	5/10/1999	4/5/2005
Approved Quantity	21	15
Reference	ADM	ADM
Start Year	2002	2002
End Year	2007	2007

In May 1999, Low Rate Initial Production (LRIP) was approved by Assistant Secretary of the Navy Research, Development and Acquisition ASN(RDA) for a total LRIP quantity of 21, which was 8.6% of the total procurement (243). In April 2005, an Acquisition Decision Memorandum was approved to reduce the LRIP quantity from 21 to 15 which was 5.0% of the total procurement (298). Program is now in Full Rate Production (FRP).

Foreign Military Sales

Country	Date of Sale	Quantity	Total Cost $M	Memo
Australia	6/6/2011		743.5	Total Cost based on Letter of Offer and Acceptance (LOA) signed June 6, 2011 for Through Life Support (TLS), Support Equipment and Training.
Australia	6/6/2011	24	2052.7	Total Cost based on LOA signed June 6, 2011.

Nuclear Cost

None

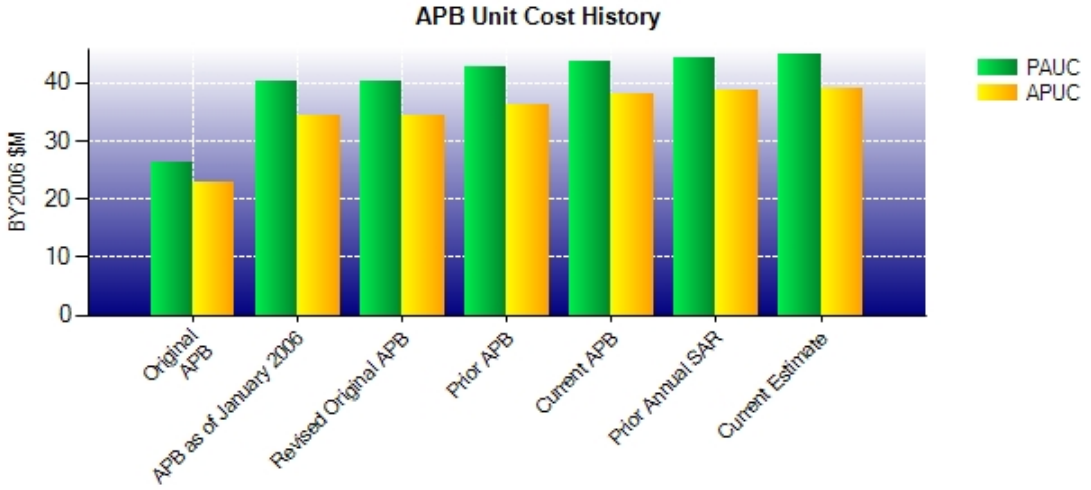
Unit Cost

Unit Cost Report

Unit Cost	BY2006 $M Current UCR Baseline (NOV 2010 APB)	BY2006 $M Current Estimate (DEC 2011 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	13079.1	13081.8	
Quantity	300	291	
Unit Cost	43.597	44.955	+3.11
Average Procurement Unit Cost (APUC)			
Cost	11360.2	11263.6	
Quantity	298	289	
Unit Cost	38.121	38.974	+2.24

Unit Cost	BY2006 $M Revised Original UCR Baseline (MAY 2004 APB)	BY2006 $M Current Estimate (DEC 2011 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	9894.9	13081.8	
Quantity	243	291	
Unit Cost	40.720	44.955	+10.40
Average Procurement Unit Cost (APUC)			
Cost	8361.1	11263.6	
Quantity	241	289	
Unit Cost	34.693	38.974	+12.34

Unit Cost History



		BY2006 $M		TY $M	
	Date	PAUC	APUC	PAUC	APUC
Original APB	JUN 1995	26.155	22.846	29.981	27.062
APB as of January 2006	MAY 2004	40.208	34.255	41.427	36.090
Revised Original APB	MAY 2004	40.208	34.255	41.427	36.090
Prior APB	SEP 2008	42.626	36.143	45.746	39.877
Current APB	NOV 2010	43.597	38.121	47.146	42.193
Prior Annual SAR	DEC 2010	44.343	38.529	48.000	42.682
Current Estimate	DEC 2011	44.955	38.974	48.994	43.525

SAR Unit Cost History

Initial SAR Baseline to Current SAR Baseline (TY $M)

Initial PAUC Dev Est	Changes								PAUC Prod Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
44.979	-1.370	-18.295	0.747	3.963	11.669	0.000	3.286	0.000	44.979

Current SAR Baseline to Current Estimate (TY $M)

PAUC Prod Est	Changes								PAUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
44.979	-0.245	-2.017	0.444	0.841	4.957	0.000	0.035	4.015	48.994

Initial SAR Baseline to Current SAR Baseline (TY $M)

Initial APUC Dev Est	Changes								APUC Prod Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
39.877	-1.249	-15.767	0.753	3.098	10.132	0.000	3.033	0.000	39.877

Current SAR Baseline to Current Estimate (TY $M)

APUC Prod Est	Changes								APUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
39.877	-0.217	-1.378	0.447	0.135	4.625	0.000	0.036	3.648	43.525

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	JUL 1993	JUL 1993	JUL 1993
Milestone III	N/A	OCT 2001	JAN 2006	MAR 2006
IOC	N/A	MAR 2001	DEC 2005	DEC 2005
Total Cost (TY $M)	N/A	11424.7	11424.7	14257.3
Total Quantity	N/A	254	254	291
Prog. Acq. Unit Cost (PAUC)	N/A	44.979	44.979	48.994

Cost Variance

Cost Variance Summary

Summary Then Year $M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Prod Est)	1375.7	10049.0	--	11424.7
Previous Changes				
Economic	-9.9	-176.2	--	-186.1
Quantity	--	+1385.4	--	+1385.4
Schedule	--	+109.9	--	+109.9
Engineering	+205.7	+47.2	--	+252.9
Estimating	+109.3	+1315.4	--	+1424.7
Other	--	--	--	--
Support	--	-11.6	--	-11.6
Subtotal	+305.1	+2670.1	--	+2975.2
Current Changes				
Economic	+1.3	+113.6	--	+114.9
Quantity	--	-308.3	--	-308.3
Schedule	--	+19.2	--	+19.2
Engineering	--	-8.2	--	-8.2
Estimating	-3.4	+21.3	--	+17.9
Other	--	--	--	--
Support	--	+21.9	--	+21.9
Subtotal	-2.1	-140.5	--	-142.6
Total Changes	+303.0	+2529.6	--	+2832.6
CE - Cost Variance	1678.7	12578.6	--	14257.3
CE - Cost & Funding	1678.7	12578.6	--	14257.3

Summary Base Year 2006 $M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Prod Est)	1519.0	9108.0	--	10627.0
Previous Changes				
Economic	--	--	--	--
Quantity	--	+1152.2	--	+1152.2
Schedule	--	+48.2	--	+48.2
Engineering	+187.0	+40.6	--	+227.6
Estimating	+115.3	+1154.3	--	+1269.6
Other	--	--	--	--
Support	--	-21.7	--	-21.7
Subtotal	+302.3	+2373.6	--	+2675.9
Current Changes				
Economic	--	--	--	--
Quantity	--	-251.7	--	-251.7
Schedule	--	+4.4	--	+4.4
Engineering	--	-7.4	--	-7.4
Estimating	-3.1	+19.2	--	+16.1
Other	--	--	--	--
Support	--	+17.5	--	+17.5
Subtotal	-3.1	-218.0	--	-221.1
Total Changes	+299.2	+2155.6	--	+2454.8
CE - Cost Variance	1818.2	11263.6	--	13081.8
CE - Cost & Funding	1818.2	11263.6	--	13081.8

Previous Estimate: December 2010

RDT&E	$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	+1.3
Adjustment for current and prior escalation. (Estimating)	-1.0	-1.1
Revised estimate for the refinement of the Automatic Radar Periscope Detection and Discrimination (ARPDD). (Estimating)	-1.5	-1.6
Revised estimate to reflect actuals. (Estimating)	-0.6	-0.7
RDT&E Subtotal	-3.1	-2.1

Procurement	$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	+113.6
Quantity variance resulting from a decrease of 9 aircraft from 298 to 289. (Quantity)	-251.7	-308.3
Schedule variance resulting from reduction of 5 aircraft in both FY 2013 and FY 2014 and addition of 1 aircraft in FY 2016. (Schedule)	+4.4	+19.2
Decrease in engineering costs due to the incorporation of Sikorsky Airframe Engineering Change Proposals (ECPs). (Engineering)	-7.4	-8.2
Adjustment for current and prior escalation. (Estimating)	-32.6	-36.5
Increase in revised cost estimate for Sikorsky Airframe follow-on multi-year contract costs due to labor rates adjustment for going below Minimum Sustaining Rate (MSR). (Estimating)	+38.5	+47.5
Increase in revised cost estimate for Lockheed Martin Mission Systems and Common Cockpit contract costs due to labor rates adjustment for going below MSR. (Estimating)	+68.0	+79.5
Decrease in revised cost estimate for Government Furnished Equipment (GFE) requirements and prior year actuals. (Estimating)	-1.0	-2.8
Decrease in revised cost estimate for refinement of Engineering Change Order (ECO) estimate. (Estimating)	-1.4	-1.5
Decrease in revised cost estimate for reduction of Ancillary Airborne Low Frequency Sonar (ALFS) quantities from 213 to 206 total and re-phasing. (Estimating)	-25.1	-30.7
Decrease in revised estimate for Non-Recurring Engineering (NRE) associated with ARPDD, ALFS and other NRE. (Estimating)	-27.2	-34.2
Adjustment for current and prior escalation. (Support)	-5.8	-6.7
Increase in other Support for Littoral Combat Ship aircraft Peculiar Ground Support Equipment. (Support)	+15.9	+20.1
Increase in Initial Spares due to refined cost estimates. (Support)	+7.4	+8.5
Procurement Subtotal	-218.0	-140.5

Contracts

Appropriation: Procurement

Contract Name	**LM MS2 MY Production Lots (5-9)**
Contractor	Lockheed Martin Mission Systems & Sensors (LM MS2)
Contractor Location	Owego, NY 13827-3998
Contract Number, Type	N00019-06-C-0098, FFP
Award Date	August 16, 2007
Definitization Date	August 16, 2007

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
1065.0	N/A	139	1101.0	N/A	131	1101.1	1101.1

Cost And Schedule Variance Explanations

Cost and Schedule variance reporting is not required on this FFP contract.

Contract Comments

The difference between the initial contract price target and the current contract price target is due to a contract modification awarded in December 2009 for additional scope for procurement of the Common Cockpit (CC) for FY 2010 and FY 2011.

Appropriation: RDT&E

Contract Name	**LM MS2 Automatic Radar Periscope Detection and Discrimination (ARPDD) SDD**
Contractor	Lockheed Martin Mission Systems & Sensors (LM MS2)
Contractor Location	1801 State Route 17C Owego, NY 13827-3998
Contract Number, Type	N00019-08-C-0005, CPIF
Award Date	June 26, 2008
Definitization Date	June 26, 2008

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
144.0	N/A	N/A	146.4	N/A	N/A	147.6	148.9

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (1/29/2012)	-1.9	-0.5
Previous Cumulative Variances	-4.0	-0.8
Net Change	+2.1	+0.3

Cost And Schedule Variance Explanations

The favorable net change in the cost variance is due to cost and schedule efficiency in the area of Integration and Test.

The favorable net change in the schedule variance is due to LM MS2's ability to execute key program tasks and milestones leading up to contractor and Integrated test on or near their original baselined dates.

Contract Comments

This contract is more than 90% complete; therefore, this is the final report for this contract.

The difference between the initial contract price target and the current contract price target is due to the addition of two wiring kits required to support integrated and operational testing for the Automatic Radar Periscope Detection and Discrimination (ARPDD) System Development and Demonstration(SDD) program.

Appropriation: Procurement

Contract Name	**L3 Common Data Link (CDL)**
Contractor	L3 Communications Corporation
Contractor Location	640 N 2200 W, P.O. Box 16850 Salt Lake City, UT 84116-0850
Contract Number, Type	N00019-09-C-0059, FPIF
Award Date	June 12, 2009
Definitization Date	June 12, 2009

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
59.8	65.0	N/A	141.9	141.9	N/A	141.9	141.9

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (1/27/2012)	-20.0	-0.3
Previous Cumulative Variances	-8.0	-1.2
Net Change	-12.0	+0.9

Cost And Schedule Variance Explanations

The unfavorable net change in the cost variance is due to Integration Assembly. Cost inefficiencies are a result of support of Government First Article Inspection and Test (GFAIT). Actual cost has exceeded the budget at complete by $15.2M. This is a FPIF contract and the Government overrun share ratio was capped at $1.2M. The Government will not accrue any additional cost from the overruns.

The favorable net change in the schedule variance is due to additional staffing added to the program to overcome delays in First Article Delivery and production delays.

Contract Comments

This contract is more than 90% complete; therefore, this is the final report for this contract.

The difference between the initial contract price target and the current contract price target is due to awarding an option for procurement of additional SRQ-4 Common Data Link (CDL) components and spares.

Appropriation: Procurement

Contract Name	**Raytheon Integrated Defense Systems ALFS Lots 7 - 8**
Contractor	Raytheon Integrated Defense Systems
Contractor Location	Portsmouth, RI 02871-1087
Contract Number, Type	N00019-09-C-0096, FFP
Award Date	September 22, 2009
Definitization Date	September 22, 2009

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
81.1	N/A	23	142.1	N/A	41	142.1	142.1

Cost And Schedule Variance Explanations

Cost and Schedule variance reporting is not required on this FFP contract.

Contract Comments

The difference between the initial contract price target and the current contract price target is due to a contract modification awarded in March 2010 for additional scope for procurement of 18 Lot 8 Airborne Low Frequency Sonar (ALFS) systems and 2 Sonar Transmitter/Receivers (ST/R).

Appropriation: Procurement

Contract Name	**Raytheon Integrated Defense Systems ALFS Lot 9**
Contractor	Raytheon Integrated Defense Systems
Contractor Location	Portsmouth, RI 02871-1087
Contract Number, Type	N00019-11-C-0077, FFP
Award Date	September 27, 2011
Definitization Date	September 27, 2011

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
81.7	N/A	24	162.5	N/A	49	162.5	162.5

Cost And Schedule Variance Explanations

Cost and Schedule variance reporting is not required on this FFP contract.

Contract Comments

The difference between the initial contract price target and the current contract price target is due to a contract modification awarded in December 2011 for additional scope for procurement of the 25 Royal Australian Navy (RAN) Airborne Low Frequency Sonar (ALFS) systems.

This is the first time this contract is being reported.

Appropriation: Procurement

Contract Name	**SAC MY Production Lots (5-9)**
Contractor	Sikorsky Aircraft Corporation (SAC)
Contractor Location	Stratford, CT 06614-1378
Contract Number, Type	W58RGZ-08-C-0003, FFP
Award Date	December 12, 2007
Definitization Date	December 12, 2007

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
2090.0	N/A	139	1979.9	N/A	131	1979.9	1979.9

Cost And Schedule Variance Explanations

Cost and Schedule variance reporting is not required on this FFP contract.

Contract Comments

The difference between the initial contract price target and the current contract price target is due to the reduction of aircraft quantities.

Deliveries and Expenditures

Deliveries To Date	Plan To Date	Actual To Date	Total Quantity	Percent Delivered
Development	2	2	2	100.00%
Production	120	120	289	41.52%
Total Program Quantities Delivered	122	122	291	41.92%

Expenditures and Appropriations (TY $M)			
Total Acquisition Cost	14257.3	Years Appropriated	23
Expenditures To Date	6971.0	Percent Years Appropriated	82.14%
Percent Expended	48.89%	Appropriated to Date	9753.3
Total Funding Years	28	Percent Appropriated	68.41%

Deliveries and expenditures are current as of February 29, 2012.

Operating and Support Cost

Assumptions And Ground Rules

Estimated Duration = Fiscal Year (FY) 2006 to 2038
MH-60R Fatigue Life = 10,000 Hours or approximately 22 years
Aircraft Attrition Rate = 0.5% of Total Aircraft Inventory (TAI) per Year
Aircraft Pipeline Rate = 10% of TAI per Year
Total Procured MH-60R Aircraft = 291 (289 + 2 Research, Development, Test, and Evaluation (RDT&E))
Aircraft per Fleet Squadron = 12
Aircraft per Fleet Replacement Squadron = 13
Average Flight Hours per Month per Aircraft = 37.9
Total Operating Aircraft Years = 4,707

Date of Estimate: February 2012
Source: NAVAIR 4.2 Cost Department; Operating & Sustainment Division

Cost estimate updated to reflect a reduction in the Primary Authorized Aircraft (PAA) and flight hours from the Milestone III estimate from 500 flight hours per year to 353 flight hours per year. Maintenance Costs consisting of Aviation Depot Level Repairable (AVDLR) and Consumables are now estimated using a bottoms up model, utilizing both historical costs and reliability performance to date for the MH-60R which includes the cost savings of new I-level capabilities, instead of the observed historical cost ratios from other similar H-60s. In addition, a MH-60R specific manning document and sundown plan is now being utilized instead of the legacy manning documents for other H-60 platforms. The Base Year total was calculated multiplying the dollar per aircraft cost by the total number of aircraft years of the O&S cycle. A phased approach estimate includes the ramp-up of aircraft as they are introduced to the fleet through the retirement of MH-60R aircraft from service with a total aircraft procurement of 291.

The antecedent system is the SH-60B/F aircraft. All costs are from the FY 2011 Navy Visibility and Management of Operating and Support Costs (VAMOSC) Aviation Type Model Series Report (ATMSR) database (data from 2009 through 2011) and the FY 2011 Aircraft Program Data File (APDF) Primary Authorized Aircraft (PAA). (6.0) Indirect Support is a function of Unit-Level Manpower costs.

Legacy systems have experienced and continue to experience service life adjustments and system modifications that make the compilation of Total O&S cost by assuming a static service life (e.g. 25 years) not credible.

In addition, the capture of Operating and Support (O&S) data in available reporting systems has changed significantly over time. VAMOSC (Visibility and Management of Operating and Support Costs), the Navy's official system for collecting and reporting O&S cost, provides cost from 1997 - present. The cost data for platforms in existence prior to 1997 is either unavailable or incomplete. In summary, sufficient historical data and resources do not exist to create a comparable, credible Total O&S cost.

Rounding the Total Unitized Cost to $5.63M and then proceeding to multiply by the total operating years of 4,707 will equal $26,500M for Total O&S Base Year Cost. This reflects a $4 Million Rounding Error in the Total O&S Base Year Cost.

Reporting was changed from the 1992 Cost Analysis Improvement Group (CAIG O&S) format to the 2007 Cost Assessment and Program Evaluation (CAPE) format.

Costs BY2006 $M		
Cost Element	**MH-60R Average Annual Cost per Aircraft**	**SH-60B/F Average Annual Cost per Aircraft**
Unit-Level Manpower	1.92	1.86
Unit Operations	0.22	0.24
Maintenance	2.43	2.07
Sustaining Support	0.09	0.10
Continuing System Improvements	0.23	0.22
Indirect Support	0.75	0.47
Other	0.00	0.00
Total Unitized Cost (Base Year 2006 $)	5.64	4.96

Total O&S Costs $M	MH-60R	SH-60B/F
Base Year	26504.0	--
Then Year	38635.0	--

As defined by the Cost Assessment and Program Evaluation Department Operating and Support (O&S) Cost-Estimating Guide of October 2007, disposal costs are not part of O&S. It is not currently estimated for this program.