



## Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-341



### **UH-60M Black Hawk Helicopter (UH-60M Black Hawk)**

As of FY 2016 President's Budget

Defense Acquisition Management  
Information Retrieval  
(DAMIR)

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## 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**

UH-60M Black Hawk Helicopter (UH-60M Black Hawk)

**DoD Component**

Army

## Responsible Office

COL Thomas H. Todd, III  
Utility Helicopters Project Office  
Program Executive Office Aviation  
Redstone Arsenal, AL 35898-5000

[thomas.h.todd8.mil@mail.mil](mailto:thomas.h.todd8.mil@mail.mil)

**Phone:** 256-955-8939

**Fax:** 256-955-8109

**DSN Phone:** 645-8939

**DSN Fax:** 645-8109

**Date**

**Assigned:** June 29, 2011

## References

**SAR Baseline (Production Estimate)**

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated March 31, 2005

**Approved APB**

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated June 20, 2011

## Mission and Description

The UH-60M Black Hawk Helicopter (UH-60M Black Hawk) serves as the Army's utility helicopter for the current and future force and is in line with the Army's Modernization Strategy, the National Military Strategy, and the National Defense Strategy. The UH-60M Black Hawk is a digital networked platform with greater range and lift to support maneuver commanders through air assault, general support, command and control, and aeromedical evacuation. Full rate production for this new-build helicopter began in 2007. The UH-60M Black Hawk, with the integrated Medical Evacuation (MEDEVAC) Mission Equipment Package (MEP) kit, provides day/night and adverse weather emergency evacuation of casualties. The integration of the MEDEVAC MEP onto the UH-60M changes the nomenclature to HH-60M.

## Executive Summary

The FY 2016 PB funding position smoothed the production buy profile and increased the procurement cycle by one year over the PB 2015 SAR report.

Defense Contract Management Agency Plant Rep Evaluation as of December 31, 2014 indicates that the eighth Multi-Year (MY)/Multi-Service contract, W58RGZ-12-C-0008, (MY VIII) covering the years FY 2012 - FY 2016 was awarded on July 6, 2012. The requirement of this FRP contract is for a total of 529 H-60M aircraft (283 UH-60M and 120 HH-60M for the Army, 18 UH-60M for the U.S. Air Force (USAF), 24 UH-60M for the Saudi Arabia National Guard, three UH-60M for Thailand, 56 UH-60M for Taiwan, 23 UH-60M for Mexico, and two UH-60M for the Federal Bureau of Investigations).

MY VII deliveries are complete.

To date, a total of 234 MY VIII aircraft (152 UH-60M and 64 HH-60M for the U.S. Army; and 18 UH-60M for the USAF) were accepted.

Sikorsky Aircraft Corporation is currently ahead of the contract delivery schedule by ten aircraft.

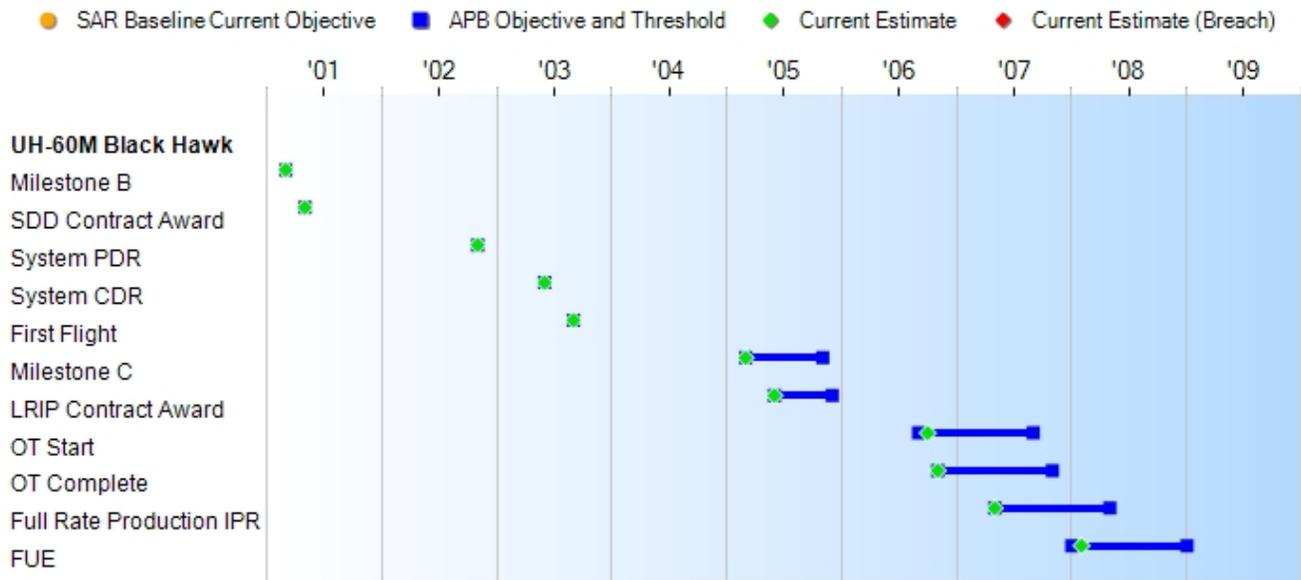
There are no significant software-related issues with this program at this time.

## Threshold Breaches

APB Breaches		Explanation of Breach
<b>Schedule</b>	<input type="checkbox"/>	<p>O&amp;S Cost Breach was previously reported in the December 2013 SAR. The current O&amp;S cost in the UH-60M Black Hawk June 2011 APB represents Operations and Maintenance cost not Operating and Support cost. The key difference between the two is that Operations and Maintenance costs does not include Military Personnel costs. The UH-60M Black Hawk Program also incorporated the revised Economic Useful Life expectancy from 20-years to 25-years as identified in the April 22, 2012 memorandum from the Assistant Secretary of the Army (Acquisition, Logistics and Technology).</p>
<b>Performance</b>	<input type="checkbox"/>	
<b>Cost</b>	<input type="checkbox"/>	
RDT&E	<input type="checkbox"/>	
Procurement	<input type="checkbox"/>	
MILCON	<input type="checkbox"/>	
Acq O&M	<input type="checkbox"/>	
<b>O&amp;S Cost</b>	<input checked="" type="checkbox"/>	
<b>Unit Cost</b>	<input type="checkbox"/>	
PAUC	<input type="checkbox"/>	
APUC	<input type="checkbox"/>	

Nunn-McCurdy Breaches	
<b>Current UCR Baseline</b>	
PAUC	None
APUC	None
<b>Original UCR Baseline</b>	
PAUC	None
APUC	None

# Schedule



Schedule Events				
Events	SAR Baseline Production Estimate	Current APB Production Objective/Threshold		Current Estimate
Milestone B	Mar 2001	Mar 2001	Mar 2001	Mar 2001
SDD Contract Award	May 2001	May 2001	May 2001	May 2001
System PDR	Nov 2002	Nov 2002	Nov 2002	Nov 2002
System CDR	Jun 2003	Jun 2003	Jun 2003	Jun 2003
First Flight	Sep 2003	Sep 2003	Sep 2003	Sep 2003
Milestone C	Feb 2005	Mar 2005	Nov 2005	Mar 2005
LRIP Contract Award	Mar 2005	Jun 2005	Dec 2005	Jun 2005
OT Start	Sep 2006	Sep 2006	Sep 2007	Oct 2006
OT Complete	Nov 2006	Nov 2006	Nov 2007	Nov 2006
Full Rate Production IPR	May 2007	May 2007	May 2008	May 2007
FUE	Jan 2008	Jan 2008	Jan 2009	Feb 2008

## Change Explanations

None

**Acronyms and Abbreviations**

CDR - Critical Design Review

FUE - First Unit Equipped

IPR - In-Process Review

OT - Operational Test

PDR - Preliminary Design Review

SDD - System Design & Development

## Performance

Performance Characteristics				
SAR Baseline Production Estimate	Current APB Production Objective/Threshold	Demonstrated Performance	Current Estimate	
<b>Key Performance Parameters (KPPs)</b>				
<b>Interoperability (meet IERs)</b>				
All	N/A	N/A	N/A	N/A
<b>Net-Ready</b>				
All	All	All Critical	All	All
<b>Survivability IR Signature</b>				
N/A	Existing	Existing	Existing	Existing
<b>Aircraft Survivability Equipment</b>				
N/A	Existing	Existing	Existing	Existing
<b>Survivability Fuel Cells</b>				
N/A	14.5mm	7.62mm	7.62mm	7.62mm
<b>Force Protection Armor Plating</b>				
N/A	14.5mm	7.62mm	7.62mm	7.62mm
<b>External Lift</b>				
<b>Payload</b>				
10,000	10,000	4,500	4,888	4,888
<b>Non-KPPs</b>				
<b>Troop Movement</b>				
<b>Airspeed (Sustained Cruise) (KTAS)</b>				
175	175	145	142.0	145.0
<b>One Engine Inoperative (KTAS)</b>				
100	100	100	TBD	100.0
<b>Combat Radius (w/20 min reserve) (KM)</b>				
500	500	225	225.0	225.6
<b>Vertical Rate of Climb (fpm)</b>				
750	750	500	725	725
<b>Vertical Rate of Climb w/ One Engine Inoperative (fpm)</b>				
200	200	100	TBD	100.0
<b>Internal Lift Capability (290 lbs each)</b>				
11	11	11	11	11
<b>Self-Deploy Range (nautical miles)</b>				

1260	1260	1056	TBD	1071
<b>Ballistic Protection (ground fired armor piercing (mm))</b>				
14.5	14.5	7.62	14.5	14.5
<b>Maintainability (mhrs per flight hr)</b>				
4.6	4.6	5.4	2.3	4.1
<b>Unscheduled mhrs per flight hr</b>				
1.3	1.3	2.1	0.4	1.1
<b>External Lift</b>				
<b>Vertical Rate of Climb (fpm)</b>				
500	500	200	200	200
<b>Combat Radius (w/20 min reserve) (KM)</b>				
275	275	135	135	135

### Requirements Reference

Operational Requirements Document (ORD) dated January 29, 2007

### Change Explanations

None

### Acronyms and Abbreviations

fpm - feet per minute  
hr - hour  
IER - Information Exchange Requirement  
IR - infrared  
KM - kilometer  
KTAS - Knots True Air Speed  
lbs - pounds  
mhrs - man-hours  
min - minutes  
mm - millimeter  
w/ - with

## Track to Budget

### RDT&E

Appn	BA	PE
Army	2040	07 0203744A

Project	Name
504	UH-60M Recapitalization/Modifications (Shared) (Sunk)

### Notes

Only UH-60M Black Hawk and UH-60M Upgrade Technologies (RDT&E only) funds are included in this SAR.

### Procurement

Appn	BA	PE
Army	2031	01 0210101A

Line Item	Name
A05002	Black Hawk UH-60M (MYP) (Shared)

Appn	BA	PE
Army	2031	02 0210101A

Line Item	Name
AA0492	Black Hawk UH-60M Upgrade/Recap (Shared) (Sunk)

### Notes

The Aircraft Procurement, Army (APA) Line Item AA0492 is shared with other UH-60M Black Hawk modifications such as Crashworthy External Fuel System, Medical Equipment Package, and other safety modifications. No funds from the AA0492 line are included in this SAR.

The APA Line Item AA0005 is the parent to the APA Line Item A05002.

The APA Line Item A05002 is shared with the Multi-Year Procurement VI of UH-60L Black Hawk aircraft. As a shared funding line, only UH-60M Black Hawk baseline program costs are included. Procurement of UH-60L Black Hawk aircraft was completed in FY 2006.

## Cost and Funding

### Cost Summary

Total Acquisition Cost							
Appropriation	BY 2005 \$M			BY 2005 \$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	717.5	761.3	837.4	761.3	739.3	780.4	780.4
Procurement	16084.2	21873.7	24061.1	20730.1	20107.8	27314.2	26122.9
Flyaway	--	--	--	19541.4	--	--	24648.3
Recurring	--	--	--	19325.8	--	--	24400.6
Non Recurring	--	--	--	215.6	--	--	247.7
Support	--	--	--	1188.7	--	--	1474.6
Other Support	--	--	--	989.3	--	--	1221.0
Initial Spares	--	--	--	199.4	--	--	253.6
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	16801.7	22635.0	N/A	21491.4	20847.1	28094.6	26903.3

#### Confidence Level

Confidence Level of cost estimate for current APB: 50%

In March, 2011 the Program Office and the Deputy Assistant Secretary of the Army for Cost and Economics (DASA-CE) agreed on an Army Cost Position which was used to establish the Acquisition Program Baseline (APB), dated June 20, 2011. Costs are reflected at the 50% Confidence Level in accordance with the Army Cost and Economic Analysis Program, Army Regulation 11-18.

It is difficult to calculate mathematically the precise confidence levels associated with life cycle cost estimates prepared for Major Defense Acquisition Programs (MDAPs). Based on the rigor in methods used in building estimates, the strong adherence to the collection and use of historical cost information, and the review of applied assumptions, we project that it is about equally likely that the estimate will prove too low or too high for execution of the program described.

Total Quantity			
Quantity	SAR Baseline Production Estimate	Current APB Production	Current Estimate
RDT&E		8	8
Procurement	1227	1367	1367
Total	1235	1375	1375

## Cost and Funding

### Funding Summary

Appropriation Summary									
FY 2016 President's Budget / December 2014 SAR (TY\$ M)									
Appropriation	Prior	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
RDT&E	780.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	780.4
Procurement	11893.0	1473.5	1563.0	1263.1	1182.4	943.1	960.5	6844.3	26122.9
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 2016 Total	12673.4	1473.5	1563.0	1263.1	1182.4	943.1	960.5	6844.3	26903.3
PB 2015 Total	12679.5	1369.1	1296.3	1507.8	1541.5	1485.9	1077.4	5281.9	26239.4
Delta	-6.1	104.4	266.7	-244.7	-359.1	-542.8	-116.9	1562.4	663.9

Quantity Summary										
FY 2016 President's Budget / December 2014 SAR (TY\$ M)										
Quantity	Undistributed	Prior	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Development	8	0	0	0	0	0	0	0	0	8
Production	0	679	87	94	60	72	37	38	300	1367
PB 2016 Total	8	679	87	94	60	72	37	38	300	1375
PB 2015 Total	8	679	79	71	70	104	86	46	232	1375
Delta	0	0	8	23	-10	-32	-49	-8	68	0

## Cost and Funding

### Annual Funding By Appropriation

Annual Funding							
2040   RDT&E   Research, Development, Test, and Evaluation, Army							
Fiscal Year	Quantity	TY \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2000	--	--	--	--	--	--	9.5
2001	--	--	--	--	--	--	28.8
2002	--	--	--	--	--	--	55.9
2003	--	--	--	--	--	--	96.8
2004	--	--	--	--	--	--	144.8
2005	--	--	--	--	--	--	99.8
2006	--	--	--	--	--	--	106.6
2007	--	--	--	--	--	--	117.5
2008	--	--	--	--	--	--	84.9
2009	--	--	--	--	--	--	30.8
2010	--	--	--	--	--	--	5.0
Subtotal	8	--	--	--	--	--	780.4

Annual Funding 2040   RDT&E   Research, Development, Test, and Evaluation, Army							
Fiscal Year	Quantity	BY 2005 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2000	--	--	--	--	--	--	10.2
2001	--	--	--	--	--	--	30.5
2002	--	--	--	--	--	--	58.6
2003	--	--	--	--	--	--	99.5
2004	--	--	--	--	--	--	145.4
2005	--	--	--	--	--	--	97.4
2006	--	--	--	--	--	--	101.3
2007	--	--	--	--	--	--	109.0
2008	--	--	--	--	--	--	77.3
2009	--	--	--	--	--	--	27.7
2010	--	--	--	--	--	--	4.4
Subtotal	8	--	--	--	--	--	761.3

FY 2010 - FY 2011 RDT&E includes funds for the Fly-By-Wire flight test program and is no longer a part of the acquisition program as directed by the February 18, 2010 ADM. Subsequent reports reflect the direction of the ADM.

Annual Funding 2031   Procurement   Aircraft Procurement, Army							
Fiscal Year	Quantity	TY \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2004	--	--	13.5	--	13.5	--	13.5
2005	5	82.5	6.1	5.6	94.2	2.8	97.0
2006	17	241.3	7.5	4.5	253.3	15.2	268.5
2007	72	1086.3	85.8	45.4	1217.5	54.4	1271.9
2008	77	1144.4	85.3	63.3	1293.0	61.6	1354.6
2009	66	962.3	92.0	9.0	1063.3	48.2	1111.5
2010	84	1182.5	172.0	4.5	1359.0	124.2	1483.2
2011	99	1512.5	131.4	36.2	1680.1	108.8	1788.9
2012	89	1298.0	174.5	35.9	1508.4	189.1	1697.5
2013	100	1263.9	179.6	3.7	1447.2	130.3	1577.5
2014	70	980.5	171.6	1.2	1153.3	75.6	1228.9
2015	87	1214.0	182.6	3.5	1400.1	73.4	1473.5
2016	94	1299.3	185.2	2.5	1487.0	76.0	1563.0
2017	60	983.5	204.6	11.0	1199.1	64.0	1263.1
2018	72	852.9	205.5	12.8	1071.2	111.2	1182.4
2019	37	674.7	205.2	0.7	880.6	62.5	943.1
2020	38	711.7	211.6	0.8	924.1	36.4	960.5
2021	47	853.7	222.1	2.1	1077.9	26.9	1104.8
2022	51	941.3	230.8	1.0	1173.1	35.8	1208.9
2023	51	768.2	231.6	1.0	1000.8	34.8	1035.6
2024	51	901.3	241.8	1.0	1144.1	39.0	1183.1
2025	50	889.9	247.8	1.0	1138.7	36.0	1174.7
2026	50	771.9	250.8	1.0	1023.7	40.0	1063.7
2027	--	--	45.1	--	45.1	28.4	73.5
Subtotal	1367	20616.6	3784.0	247.7	24648.3	1474.6	26122.9

Annual Funding 2031   Procurement   Aircraft Procurement, Army								
Fiscal Year	Quantity	BY 2005 \$M						
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program	
2004	--	--	13.4	--	13.4	--	13.4	
2005	5	79.6	5.8	5.4	90.8	2.7	93.5	
2006	17	226.6	7.0	4.2	237.8	14.3	252.1	
2007	72	999.9	78.9	41.8	1120.6	50.1	1170.7	
2008	77	1036.9	77.2	57.4	1171.5	55.8	1227.3	
2009	66	859.5	82.2	8.0	949.7	43.1	992.8	
2010	84	1038.1	150.9	4.0	1193.0	109.1	1302.1	
2011	99	1303.9	113.3	31.2	1448.4	93.8	1542.2	
2012	89	1099.7	147.9	30.4	1278.0	160.2	1438.2	
2013	100	1050.0	149.2	3.1	1202.3	108.2	1310.5	
2014	70	800.5	140.1	1.0	941.6	61.7	1003.3	
2015	87	974.3	146.5	2.8	1123.6	58.9	1182.5	
2016	94	1028.8	146.6	2.0	1177.4	60.2	1237.6	
2017	60	763.9	158.9	8.5	931.3	49.8	981.1	
2018	72	649.6	156.6	9.7	815.9	84.6	900.5	
2019	37	503.8	153.2	0.5	657.5	46.7	704.2	
2020	38	521.0	154.9	0.6	676.5	26.6	703.1	
2021	47	612.7	159.4	1.5	773.6	19.3	792.9	
2022	51	662.3	162.4	0.7	825.4	25.2	850.6	
2023	51	529.9	159.8	0.7	690.4	24.0	714.4	
2024	51	609.5	163.5	0.7	773.7	26.4	800.1	
2025	50	590.0	164.2	0.7	754.9	23.9	778.8	
2026	50	501.7	163.0	0.7	665.4	26.0	691.4	
2027	--	--	28.7	--	28.7	18.1	46.8	
Subtotal	1367	16442.2	2883.6	215.6	19541.4	1188.7	20730.1	

On May 18, 2010, the Aviation Synchronization Conference Council of Colonels recommended the Authorized Acquisition Objective increase from 1,227 to 1,367. Two aircraft were procured in the upgrade configuration. These two aircraft are used as test aircraft and will not be fielded.

## Low Rate Initial Production

Item	Initial LRIP Decision	Current Total LRIP
<b>Approval Date</b>	3/31/2005	3/31/2005
<b>Approved Quantity</b>	40	40
<b>Reference</b>	Milestone C ADM	Milestone C ADM
<b>Start Year</b>	2005	2005
<b>End Year</b>	2007	2007

The Milestone C ADM, dated March 31, 2005, contains approval for production of up to 40 LRIP aircraft and approval to award an Advance Procurement contract for the first lot of FRP aircraft.

## Foreign Military Sales

Country	Date of Sale	Quantity	Total Cost \$M	Description
Mexico	8/8/2014	5	137.9	Case Number MX-B-UEU
Mexico	7/22/2014	18	462.2	Case Number MX-B-UES
Thailand	9/25/2012	1	31.0	Case Number TH-B-UAD
Thailand	12/26/2011	2	62.3	Case Number TH-B-UAE
Saudi Arabia	11/30/2011	24	638.3	Case Number SI-B-WXP
Sweden	1/14/2011	15	275.7	Case Number SW-B-WAD
Taiwan	11/22/2010	60	1717.7	Case Number TW-B-YZC
Jordan	9/1/2010	2	26.3	Case Number JO-B-WAT
Mexico	8/3/2010	3	83.9	Case Number MX-B-UEJ
United Arab Emirates	12/12/2007	40	825.0	Case Number AE-B-ZUE
Bahrain	9/18/2007	9	151.9	Case Number BA-B-UIR

### Notes

To date all FMS have been for the UH-60M Black Hawk configuration of the aircraft. The Total Cost \$M reflects all costs associated with the procurement of the aircraft and other services provided to the specific country to include training, spares, et cetera.

## Nuclear Costs

None

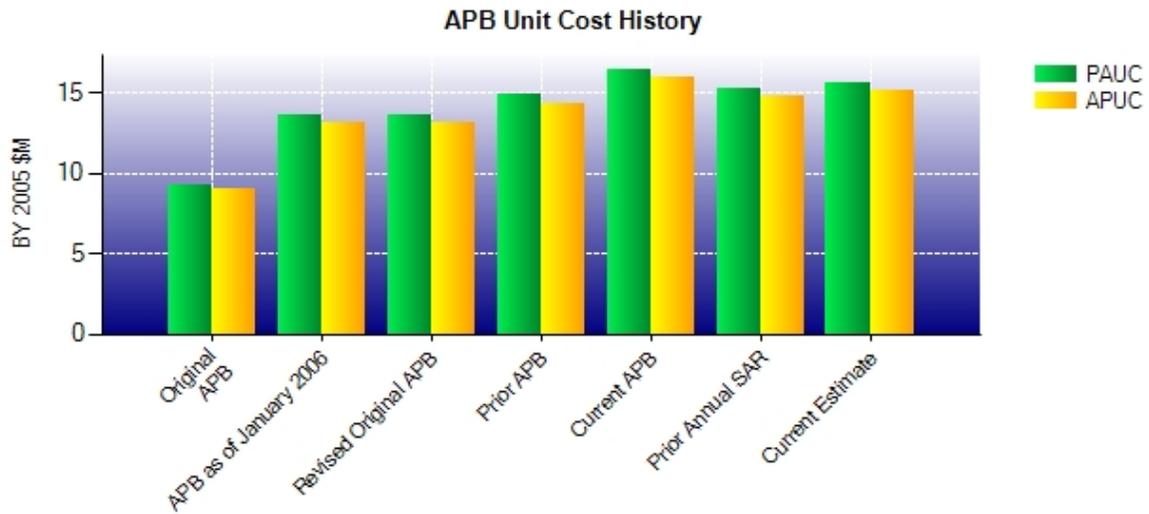
## Unit Cost

### Unit Cost Report

Item	BY 2005 \$M	BY 2005 \$M	% Change
	Current UCR Baseline (Jun 2011 APB)	Current Estimate (Dec 2014 SAR)	
<b>Program Acquisition Unit Cost</b>			
Cost	22635.0	21491.4	
Quantity	1375	1375	
Item	16.462	15.630	-5.05
<b>Average Procurement Unit Cost</b>			
Cost	21873.7	20730.1	
Quantity	1367	1367	
Unit Cost	16.001	15.165	-5.22

Item	BY 2005 \$M	BY 2005 \$M	% Change
	Revised Original UCR Baseline (Mar 2005 APB)	Current Estimate (Dec 2014 SAR)	
<b>Program Acquisition Unit Cost</b>			
Cost	16801.7	21491.4	
Quantity	1235	1375	
Unit Cost	13.605	15.630	+14.88
<b>Average Procurement Unit Cost</b>			
Cost	16084.2	20730.1	
Quantity	1227	1367	
Unit Cost	13.109	15.165	+15.68

**Unit Cost History**



Item	Date	BY 2005 \$M		TY \$M	
		PAUC	APUC	PAUC	APUC
Original APB	Feb 2002	9.250	9.042	12.008	11.812
APB as of January 2006	Mar 2005	13.605	13.109	16.880	16.388
Revised Original APB	Mar 2005	13.605	13.109	16.880	16.388
Prior APB	Feb 2007	14.872	14.338	18.840	18.319
Current APB	Jun 2011	16.462	16.001	20.432	19.981
Prior Annual SAR	Dec 2013	15.269	14.802	19.083	18.624
Current Estimate	Dec 2014	15.630	15.165	19.566	19.110

**SAR Unit Cost History**

Initial SAR Baseline to Current SAR Baseline (TY \$M)									
Initial PAUC Development Estimate	Changes								PAUC Production Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
12.008	-0.325	4.705	-0.262	0.996	-0.326	0.000	0.084	4.872	16.880

Current SAR Baseline to Current Estimate (TY \$M)									
PAUC Production Estimate	Changes								PAUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
16.880	-0.177	0.676	1.030	0.476	0.124	0.000	0.557	2.686	19.566

Initial SAR Baseline to Current SAR Baseline (TY \$M)									
Initial APUC Development Estimate	Changes								APUC Production Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
11.812	-0.324	4.469	-0.287	0.987	-0.354	0.000	0.085	4.576	16.388

Current SAR Baseline to Current Estimate (TY \$M)									
APUC Production Estimate	Changes								APUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
16.388	-0.181	0.730	1.016	0.481	0.116	0.000	0.560	2.722	19.110

SAR Baseline History				
Item	SAR Planning Estimate	SAR Development Estimate	SAR Production Estimate	Current Estimate
Milestone A	N/A	N/A	N/A	N/A
Milestone B	N/A	Apr 2001	Mar 2001	Mar 2001
Milestone C	N/A	Mar 2004	Feb 2005	Mar 2005
FUE	N/A	Sep 2006	Jan 2008	Feb 2008
Total Cost (TY \$M)	N/A	14662.0	20847.1	26903.3
Total Quantity	N/A	1221	1235	1375
PAUC	N/A	12.008	16.880	19.566

**Cost Variance**

Summary TY \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Production Estimate)	739.3	20107.8	--	20847.1
Previous Changes				
Economic	+3.9	-57.6	--	-53.7
Quantity	--	+3291.3	--	+3291.3
Schedule	+27.5	+691.4	--	+718.9
Engineering	-2.1	+657.2	--	+655.1
Estimating	+11.8	+139.2	--	+151.0
Other	--	--	--	--
Support	--	+629.7	--	+629.7
Subtotal	+41.1	+5351.2	--	+5392.3
Current Changes				
Economic	--	-189.5	--	-189.5
Quantity	--	--	--	--
Schedule	--	+697.3	--	+697.3
Engineering	--	--	--	--
Estimating	--	+20.0	--	+20.0
Other	--	--	--	--
Support	--	+136.1	--	+136.1
Subtotal	--	+663.9	--	+663.9
Total Changes	+41.1	+6015.1	--	+6056.2
CE - Cost Variance	780.4	26122.9	--	26903.3
CE - Cost & Funding	780.4	26122.9	--	26903.3

Summary BY 2005 \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Production Estimate)	717.5	16084.2	--	16801.7
Previous Changes				
Economic	--	--	--	--
Quantity	--	+2330.0	--	+2330.0
Schedule	+24.1	+563.1	--	+587.2
Engineering	+9.5	+529.3	--	+538.8
Estimating	+10.2	+219.8	--	+230.0
Other	--	--	--	--
Support	--	+507.5	--	+507.5
Subtotal	+43.8	+4149.7	--	+4193.5
Current Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	+382.3	--	+382.3
Engineering	--	--	--	--
Estimating	--	+16.5	--	+16.5
Other	--	--	--	--
Support	--	+97.4	--	+97.4
Subtotal	--	+496.2	--	+496.2
Total Changes	+43.8	+4645.9	--	+4689.7
CE - Cost Variance	761.3	20730.1	--	21491.4
CE - Cost & Funding	761.3	20730.1	--	21491.4

Previous Estimate: December 2013

Procurement	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-189.5
Increase in cost due to a one year stretch out of procurement buy profile from FY 2025 to FY 2026. (Schedule)	0.0	+136.7
Increase in estimated cost due to smoothing of production buy profile which increases procurement cycle from FY 2025 to FY 2026 and increases aircraft prices in the outyears. This includes: production changes, engineering changes, project management, modifications, and software support. (Schedule)	+382.3	+560.6
Adjustment for current and prior escalation. (Estimating)	+16.5	+20.0
Adjustment for current and prior escalation. (Support)	+1.1	+1.5
Increase in Other Support due to the requirement to ensure training aids are matched to the supported aircraft support; and schedule changes that smooth the procurement buy profile and one year stretch-out of production. (Support)	+85.7	+119.3
Increase in Initial Spares/Repair Parts due to increased aircraft cost. (Support)	+10.6	+15.3
<b>Procurement Subtotal</b>	<b>+496.2</b>	<b>+663.9</b>

## Contracts

### Contract Identification

**Appropriation:** Procurement  
**Contract Name:** Multi-Year/Multi-Service 8  
**Contractor:** Sikorsky Aircraft Corporation  
**Contractor Location:** 6900 Main St  
 Stratford, CT 06614  
**Contract Number:** W58RGZ-12-C-0008  
**Contract Type:** Firm Fixed Price (FFP)  
**Award Date:** July 06, 2012  
**Definitization Date:** July 06, 2012

### Contract Price

Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
4560.2	N/A	390	4854.5	N/A	403	4854.5	4854.5

### Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to purchase of additional aircraft.

### Cost and Schedule Variance Explanations

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

### Notes

The UH-60M Black Hawk is currently in the fourth year of a five year Multi-Year/Multi-Service contract. Army deliveries are currently ten aircraft ahead of schedule.

## Deliveries and Expenditures

Deliveries				
Delivered to Date	Planned to Date	Actual to Date	Total Quantity	Percent Delivered
Development	8	8	8	100.00%
Production	624	634	1367	46.38%
Total Program Quantity Delivered	632	642	1375	46.69%

Expended and Appropriated (TY \$M)			
Total Acquisition Cost	26903.3	Years Appropriated	16
Expended to Date	13337.1	Percent Years Appropriated	57.14%
Percent Expended	49.57%	Appropriated to Date	14146.9
Total Funding Years	28	Percent Appropriated	52.58%

The above data is current as of December 31, 2014.

## Operating and Support Cost

### Cost Estimate Details

<b>Date of Estimate:</b>	January 28, 2015
<b>Source of Estimate:</b>	POE
<b>Quantity to Sustain:</b>	1365
<b>Unit of Measure:</b>	Aircraft
<b>Service Life per Unit:</b>	25.00 Years
<b>Fiscal Years in Service:</b>	FY 2006 - FY 2051

A total of 1,375 UH/HH aircraft will be procured with 1,365 fielded and sustained. The original eight RDT&E-funded prototype aircraft and two procurement aircraft in upgrade configuration will not be fielded or sustained. The two aircraft in the upgrade configuration are test aircraft.

### Sustainment Strategy

The maintenance concept for the UH-60M Black Hawk is organic, two-level maintenance with the exception of the training base. The training base will continue as Contractor Logistics Support.

### Antecedent Information

The antecedent system is UH-60L Black Hawk. The total O&S Costs for UH-60L Black Hawk were not reported in the last UH-60L Black Hawk SAR dated December 31, 1999. The information in the O&S Cost Table is based on O&S Management Information Systems (OSMIS) data for the UH-60L Black Hawk (excluding Contingency Operations). Sustaining support costs for the UH-60L Black Hawk aircraft are not included in the table because the costs (software maintenance, system specific base operations, systems engineering/program management and transportation) are not collected in the OSMIS database. There are 780 UH-60L Black Hawks in the current fleet with an Economic Useful Life expectancy of 25-years.

Cost Element	Annual O&S Costs BY2005 \$K	
	UH-60M Black Hawk Average Annual Cost Per Aircraft	UH-60L Black Hawk (Antecedent) Avg Annual Cost Per Aircraft
Unit-Level Manpower	426.348	426.348
Unit Operations	54.132	54.132
Maintenance	373.082	284.537
Sustaining Support	1.225	0.000
Continuing System Improvements	6.157	0.000
Indirect Support	215.849	215.849
Other	0.000	0.000
<b>Total</b>	<b>1076.793</b>	<b>980.866</b>

Item	Total O&S Cost \$M			
	UH-60M Black Hawk		UH-60L Black Hawk (Antecedent)	
	Current Production APB Objective/Threshold	Current Estimate		
<b>Base Year</b>	17652.5	19417.8	<b>36745.5<sup>1</sup></b>	N/A
<b>Then Year</b>	26086.5	N/A	58401.5	N/A

<sup>1</sup> APB O&S Cost Breach

The current O&S cost in the UH-60M Black Hawk APB, dated June 2011, represents O&M costs not O&S costs. The key difference between the two is that O&M costs do not include the cost of Military Personnel.

#### Equation to Translate Annual Cost to Total Cost

Equation: Average Annual Cost Per Aircraft \* Quantity Fielded \* System Life  
 $\$1.076793M * 1365 \text{ aircraft} * 25 \text{ years} = \$36,745.5M \text{ (BY 2005 \$M)}$

O&S Cost Variance		
Category	BY 2005 \$M	Change Explanations
Prior SAR Total O&S Estimates - Dec 2013 SAR	36785.2	
Programmatic/Planning Factors	0.0	
Cost Estimating Methodology	0.0	
Cost Data Update	-39.7	Adjustment for current and prior escalation and fielding adjustments
Labor Rate	0.0	
Energy Rate	0.0	
Technical Input	0.0	
Other	0.0	
<b>Total Changes</b>	<b>-39.7</b>	
Current Estimate	36745.5	

#### Disposal Estimate Details

**Date of Estimate:** January 28, 2015  
**Source of Estimate:** POE  
**Disposal/Demilitarization Total Cost (BY 2005 \$M):** Total costs for disposal of all Aircraft are 75.2