



Selected Acquisition Report (SAR)

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



UH-60M BLACK HAWK

As of December 31, 2010

Defense Acquisition Management
Information Retrieval
(DAMIR)

UNCLASSIFIED

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Program Information

Designation And Nomenclature (Popular Name)

BLACK HAWK (UH-60M)

DoD Component

Army

Responsible Office

Responsible Office

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References

SAR Baseline (Production Estimate)

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

Approved APB

DAE Approved Acquisition Program Baseline (APB) dated February 26, 2007

Mission and Description

The 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 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, and the UH-60M is currently employed in a second combat rotation. The UH-60M, 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 following significant accomplishments occurred for the BLACK HAWK (UH-60M) Program:

The Defense Acquisition Board (DAB) authorized the Army's UH-60M BLACK HAWK program to proceed with Low Rate Initial Production (LRIP) on March 15, 2005. During the LRIP phase, 40 new UH-60M aircraft were produced. The Acquisition Decision Memorandum (ADM), signed on March 31, 2005 also authorized the advanced procurement for the first lot of full rate production UH-60M aircraft, beginning in Fiscal Year (FY) 2007. The Full Rate Production (FRP) Decision was on June 26, 2007. On May 18, 2007 the Office of the Secretary of Defense (OSD) Overarching Integrated Product Team (OIPT) report recommended the UH-60M program enter FRP. On June 26, 2007 the BLACK HAWK FRP ADM was signed. This ADM authorized entry into FRP for the BLACK HAWK to include both the UH-60M and HH-60M baseline aircraft.

On December 17, 2008, the UH-60M Upgrade OSD OIPT met to review the Army's recommendation to phase shift the planned production cut-in of Upgrade technologies. The OSD OIPT acknowledged that the Army's phase shift recommendation would allow for planned additional flight test data to be collected for use in the cut-in decision. This shift resulted in a move of Initial Operational Test and Evaluation (IOT&E) to early FY 2012 and a First Unit Equipped (FUE) shift of six months to FY 2013.

On August 7, 2009, the Army three star Budget, Requirements and Programs Board (BRP) met and recommended to the August 13, 2009 OSD OIPT that the program continue developmental testing and UH-60M production without cutting the Upgrade technologies into the production line, allowing the Army to keep the UH-60M production rates higher to meet the emerging increase in operational requirements for additional aircraft. Continuation of the technology development would make it available for future applications, and it was determined the most cost effective approach given the expected termination costs associated with not completing the developmental testing activities. The August 13, 2009 OSD OIPT tasked the Program to present this Course of Action (COA) to the Configuration Steering Board (CSB). On October 15, 2009 the UH-60 Modernization Product Office presented the COA to the CSB.

Since the last SAR:

The CSB then recommended to the Defense Acquisition Executive (DAE) that the UH-60 Modernization Program restructure. The recommendation included three parts: 1) Produce UH-60M baseline aircraft only; 2) Complete Development Testing on Fly-By-Wire aircraft; and 3) Migrate selected technologies from the Upgrade development efforts to the baseline configuration. The recommendation was approved by the DAE February 18, 2010 in a signed ADM. The ADM also directed the Program to be rebaselined with updates to the Acquisition Strategy, Test & Evaluation Master Plan (TEMP) and Acquisition Program Baseline (APB) as a result of this restructure.

On May 18, 2010, the Aviation Synchronization Conference Council of Colonels recommended the Authorized Acquisition Objective (AAO) increase from 1227 to 1365. Two additional aircraft were procured in the Upgrade configuration. These two aircraft will not be fielded. The increase in quantities has resulted in Total Procurement Cost increase over the Threshold value resulting in a Total Procurement Cost programmatic breach. This programmatic breach will be resolved with the re-baselining of the APB scheduled for Spring 2011.

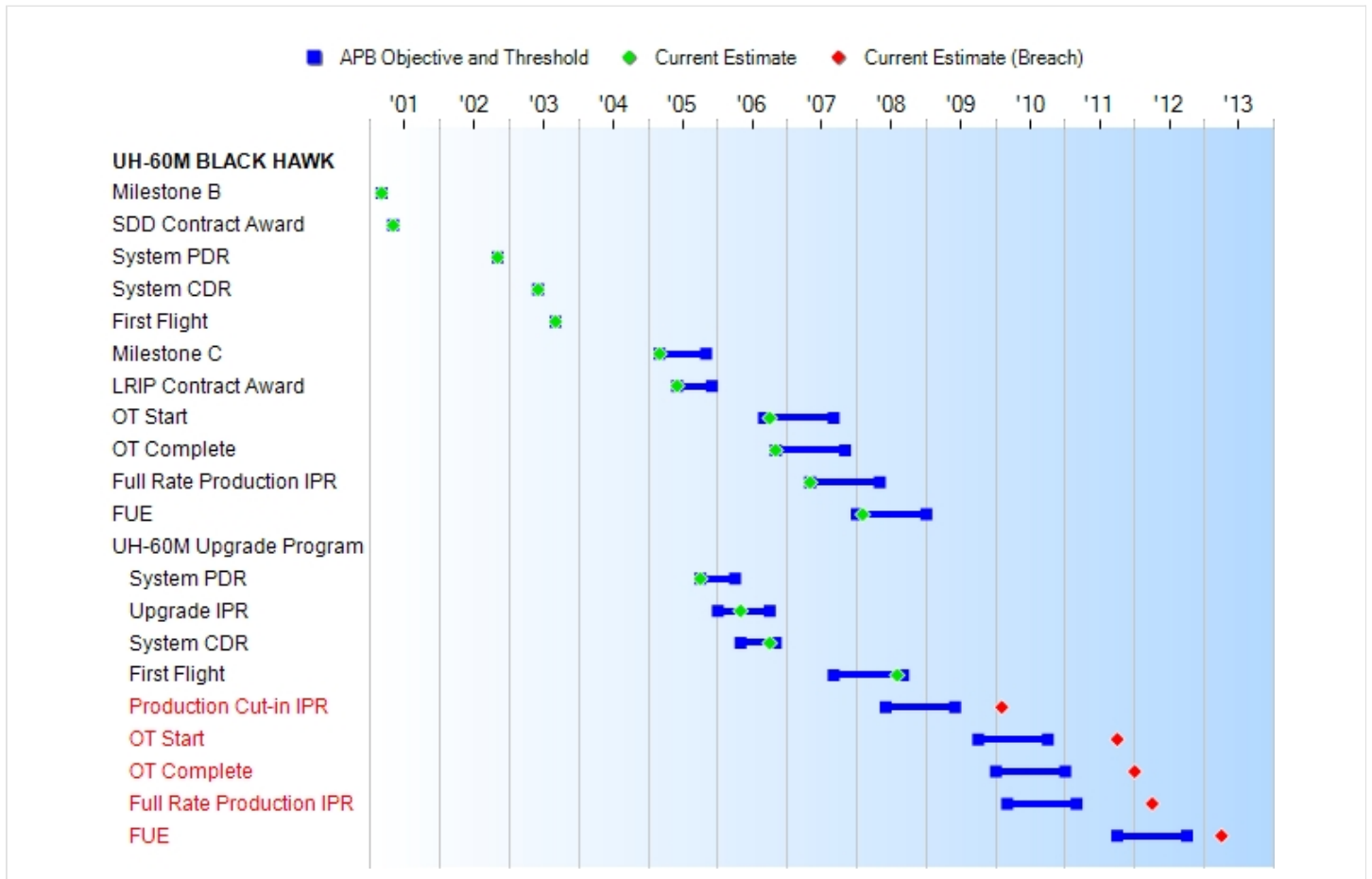
From January 2010 through December 2010 Sikorsky Aircraft Company (SAC) delivered 101 aircraft to the Army.

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

Threshold Breaches

APB Breaches			Explanation of Breach
Schedule		<input checked="" type="checkbox"/>	
Performance		<input type="checkbox"/>	
Cost	RDT&E	<input type="checkbox"/>	
	Procurement	<input checked="" type="checkbox"/>	
	MILCON	<input type="checkbox"/>	
	Acq O&M	<input type="checkbox"/>	
Unit Cost	PAUC	<input type="checkbox"/>	
	APUC	<input type="checkbox"/>	
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		Current Estimate
		Objective/Threshold		
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
UH-60M Upgrade Program				
System PDR	N/A	OCT 2005	APR 2006	OCT 2005
Upgrade IPR	N/A	JAN 2006	OCT 2006	MAY 2006
System CDR	N/A	MAY 2006	NOV 2006	OCT 2006
First Flight	N/A	SEP 2007	SEP 2008	AUG 2008
Production Cut-in IPR	N/A	JUN 2008	JUN 2009	FEB 2010¹
OT Start	N/A	OCT 2009	OCT 2010	OCT 2011¹
OT Complete	N/A	JAN 2010	JAN 2011	JAN 2012¹
Full Rate Production IPR	N/A	MAR 2010	MAR 2011	APR 2012¹
FUE	N/A	OCT 2011	OCT 2012	APR 2013¹

¹APB Breach

Acronyms And Abbreviations

CDR - Critical Design Review
 FRP - Full Rate Production
 FUE - First Unit Equipped
 IOT&E - Initial Operational Test & Evaluation
 IPR - In-Process Review
 LRIP - Low Rate Initial Production
 MS - Milestone
 OT - Operational Test
 PDR - Preliminary Design Review
 SDD - System Design & Development

Change Explanations

None

Memo

On December 17, 2008, the Office of the Secretary of Defense (OSD) Overarching Integrated Product Team (OIPT) met to review the Army's recommendation to phase shift the planned production cut-in of Upgrade technologies. The OSD OIPT acknowledged that the Army's phase shift recommendation would allow for planned additional flight test data to be collected for use in the cut-in decision. This shift resulted in a move of Initial Operational Test and

Evaluation (IOT&E) to early FY 2012 and a First Unit Equipped (FUE) shift of six months to FY 2013. A Program Deviation Report (Phase Shift) was accepted as satisfactory explanation for June 30, 2009 breach of the Acquisition Program Baseline (APB) schedule.

The Schedule breach will be resolved with the re-baselining of the APB scheduled for Spring 2011.

Performance

Characteristics	SAR Baseline Prod Est	Current APB Production Objective/Threshold		Demonstrated Performance	Current Estimate	
Key Performance Parameters (KPPs)						
Interoperability (meet IERs)	All	N/A	N/A	N/A	N/A	
Net-Ready	All	All	All Critical	All	All	
Survivability IR Signature	N/A	Existing	Existing	Existing	Existing	
Aircraft Survivability Equipment	N/A	Existing	Existing	Existing	Existing	
Survivability Fuel Cells	N/A	14.5mm	7.62mm	7.62mm	7.62mm	
Force Protection Armor Plating	N/A	14.5mm	7.62mm	7.62mm	7.62mm	
External Lift						
Payload	10,000	10,000	4,500	4,888	4,888	
Non-KPPs						
Troop Movement						
Airspeed (Sustained Cruise) (KTAS)	175	175	145	142.0	145.0	(Ch-1)
One Engine Inoperative (KTAS)	100	100	100	TBD	100.0	
Combat Radius (w/20 min reserve) (KM)	500	500	225	225.0	225.6	(Ch-1)
Vertical Rate of Climb (fpm)	750	750	500	725	725	
Vertical Rate of Climb w/ One Engine Inoperative (fpm)	200	200	100	TBD	100.0	(Ch-1)
Internal Lift Capability (290 lbs each)	11	11	11	11	11	
Self-Deploy Range (nautical miles)	1260	1260	1056	TBD	1071	
Ballistic Protection (ground fired armor piercing (mm))	14.5	14.5	7.62	14.5	14.5	
Maintainability (mhrs per flight hr)	4.6	4.6	5.4	2.3	4.1	(Ch-2)
Unscheduled mhrs per flight hr	1.3	1.3	2.1	0.4	1.1	(Ch-2)

External Lift					
Vertical Rate of Climb (fpm)	500	500	200	200	200
Combat Radius (w/20 min reserve) (KM)	275	275	135	135	135

Requirements Source: Operational Requirements Document (ORD), dated July 11, 2006 and Acquisition Decision Memorandum (ADM), dated February 18, 2010

Acronyms And Abbreviations

fpm - feet per minute
 hr - hour
 IER - Information Exchange Requirement
 IR - Infra-Red
 KM - Kilometer
 KPP - Key Performance Parameters
 KTAS - Knots True Air Speed
 lbs - Pounds
 mhrs - Man Hours
 min - Minutes
 mm - Millimeter
 TBD - To Be Determined
 w - With

Change Explanations

(Ch-1) The PM's Current Estimate changed from the following parameters to reflect UH-60M Baseline Aircraft from Upgrade Aircraft.

Airspeed (Sustained Cruise) (KTAS) Demonstrated Performance (From 141.0 to 142.0) Current Estimate (From 141.0 to 145.0)

Combat Radius (w/20 min reserve) (KM) Demonstrated Performance (From TBD to 225.0)

Vertical Rate of Climb w/One Engine Inoperative (fpm) Current Estimate (From 82.8 to 100.0)

(Ch-2) Reflects small sample size that is continuously monitored and is trending upward.

Maintainability (mhrs per flight hr) Demonstrated Performance (From TBD to 2.3)

Unscheduled (mhrs per flight hr) Demonstrated Performance (From TBD to 0.4)

Memo

A Configuration Steering Board (CSB) was held in late October 2009 and recommended to the Defense Acquisition Executive (DAE) that the UH-60 Modernization Program restructure. The recommendation included three parts: 1) Produce UH-60M baseline aircraft only; 2) Complete Development Testing on Fly-By-Wire aircraft; and 3) Migrate selected technologies from the Upgrade development efforts to the baseline configuration. The recommendation was approved by the DAE February 18, 2010 in a signed Acquisition Decision Memorandum (ADM). The ADM also directed the Program to be rebaselined with updates to the Acquisition Strategy, Test & Evaluation Master Plan (TEMP) and Acquisition Program Baseline (APB) as a result of this restructure.

The Acquisition Decision Memorandum (ADM) was signed on February 18, 2010, accepting all Army recommendations resulting in the BLACK HAWK program pursuing a strategy of procuring less costly UH-60M Baseline helicopters with migration of selected technologies cut into the UH-60 production as Engineering Change Proposals (ECPs). These selected modifications to be cut-in are as follows: Global Air Traffic Management (GATM); Battlefield Graphics; Performance Planning; Mission Management; Tactical Situational Awareness (TSA)

Processor Upgrade; MEDEVAC Mission Sensor (MMS); Stabilator Actuator; Two pallet Environmental Control System (ECS); Improved Medical Interior (IMI); Generator Improvements; and Integrated Processor Controller (IPC) General Purpose Processing Units (GPPU) Lite Integration.

Track To Budget

General Memo

The Research Development Test & Evaluation (RDT&E) Program Element (PE) 0203744A is shared by the UH-60M program, Integrated Mechanical Diagnostic - Health and Usage Monitoring System (IMD-HUMS), Maintenance Analysis Safety Training (MAST), Helicopter Autonomous Landing System (HALS), Operator Situational Awareness System - MEDEVAC, Aircraft Component Remediation, UH-60M Upgrade Pre-Planned Product Improvements (P3I), Army Component Improvement Program (ACIP), Improved Turbine Engine Program (ITEP) and Future Utility Rotorcraft (FUR). The Upgrade Technology effort as the Program of Record was completed in February 2010. Efforts associated with the Fly-By-Wire Development Testing will continue in FY 2010 and FY 2011 as directed by the Acquisition Decision Memorandum, dated February 18, 2010. Funds beginning in FY 2012 and out are for the Improved Turbine Engine Program (ITEP). All funding associated with the Fly-By-Wire Development Testing and the ITEP are not included in the Selected Acquisition Report (SAR).

The Aircraft Procurement, Army (APA) ICN AA0492 is shared with other 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 ICN AA0005 is the parent to the APA ICN A05002.

The APA ICN A05002 is shared with the Multi-Year (MY) VI Procurement of UH-60L aircraft. With this being a shared funding line, only UH-60M Baseline Program costs are included. Procurement of UH-60L aircraft was completed in FY 2006.

Overseas Contingency Operations (OCO) funding in FY 2011 (\$40.5M - one (1) UH and one (1) HH aircraft) and FY 2012 (\$72.0M - four (4) UH aircraft) is not included in this SAR.

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

RDT&E

APPN 2040	BA 07	PE 0203744A	(Army)
	Project 504	UH-60M Recapitalization/Modifications	(Sunk)

Procurement

APPN 2031	BA 01		(Army)
	ICN A05002	BLACK HAWK UH-60M (MYP)	(Shared)
APPN 2031	BA 02		(Army)
	ICN AA0492	BLACK HAWK UH-60M Upgrade/Recap	(Sunk)

Cost and Funding

Cost Summary

Total Acquisition Cost and Quantity

Appropriation	BY2005 \$M			BY2005 \$M	TY \$M		
	SAR Baseline Prod Est	Current APB Production Objective/Threshold		Current Estimate	SAR Baseline Prod Est	Current APB Production Objective	Current Estimate
RDT&E	717.5	774.5	852.0	761.3	739.3	790.5	780.4
Procurement	16084.2	17592.7	19352.0	21327.3 ¹	20107.8	22477.0	26560.1
Flyaway	15500.4	--	--	20194.6	19398.5	--	25166.3
Recurring	15421.6	--	--	19997.9	19306.3	--	24937.4
Non Recurring	78.8	--	--	196.7	92.2	--	228.9
Support	583.8	--	--	1132.7	709.3	--	1393.8
Other Support	410.8	--	--	941.6	488.7	--	1153.9
Initial Spares	173.0	--	--	191.1	220.6	--	239.9
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	18367.2	N/A	22088.6	20847.1	23267.5	27340.5

¹ APB Breach

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

The total procurement quantity of 1367 consists of 947 Baseline UH configured aircraft (with 14 of the UH-60M baseline aircraft being converted to COMHAWKS (previously CINCHAWKS)), 418 Baseline HH configured aircraft and two (2) in the Upgrade configuration. The HH-60M configuration is a UH-60M with an integrated Medical Evacuation (MEDEVAC) Mission Equipment Package installed. On October 15, 2009, based on increasing demands for helicopters to support Army Force Generation (ARFORGEN) requirements, the Configuration Steering Board (CSB) recommended to the Defense Acquisition Executive (DAE) to restructure the BLACK HAWK Upgrade (UH-60M) Technology effort to produce Baseline configured aircraft only.

The Acquisition Decision Memorandum (ADM) was signed on February 18, 2010, accepting all Army recommendations resulting in the BLACK HAWK program pursuing a strategy of procuring less costly UH-60M Baseline helicopters with migration of selected technologies cut into the UH-60 production as Engineering Change Proposals (ECPs). These selected modifications to be cut-in are as follows: Global Air Traffic Management (GATM); Battlefield Graphics; Performance Planning; Mission Management; Tactical Situational Awareness (TSA) Processor Upgrade; MEDEVAC Mission Sensor (MMS); Stabilator Actuator; Two pallet Environmental Control System (ECS); Improved Medical Interior (IMI); Generator Improvements; and Integrated Processor Controller (IPC) General Purpose Processing Units (GPPU) Lite Integration.

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	780.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	780.4
Procurement	5600.2	1351.1	1525.4	1349.4	1391.2	1317.7	1523.5	12501.6	26560.1
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	6380.6	1351.1	1525.4	1349.4	1391.2	1317.7	1523.5	12501.6	27340.5
PB 2011 Total	6315.3	1372.6	1576.0	1422.9	1439.1	1441.7	1429.5	8684.6	23681.7
Delta	65.3	-21.5	-50.6	-73.5	-47.9	-124.0	94.0	3817.0	3658.8

Quantity	Undistributed	Prior	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	To Complete	Total
Development	8	0	0	0	0	0	0	0	0	8
Production	0	321	72	71	71	71	65	74	622	1367
PB 2012 Total	8	321	72	71	71	71	65	74	622	1375
PB 2011 Total	8	318	72	75	78	74	77	72	461	1235
Delta	0	3	0	-4	-7	-3	-12	2	161	140

Cost and Funding

Annual Funding By Appropriation

Annual Funding TY\$

2040 | RDT&E | Research, Development, Test, and Evaluation, Army

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	--	--	--	--	--	--	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 BY\$**2040 | RDT&E | Research, Development, Test, and Evaluation, Army**

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2005 \$M	Non End Item Recurring Flyaway BY 2005 \$M	Non Recurring Flyaway BY 2005 \$M	Total Flyaway BY 2005 \$M	Total Support BY 2005 \$M	Total Program BY 2005 \$M
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

Annual Funding TY\$
2031 | Procurement | Aircraft Procurement, Army

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
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	1144.5	85.2	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	72	1071.0	158.6	2.9	1232.5	118.6	1351.1
2012	71	1241.0	160.2	5.8	1407.0	118.4	1525.4
2013	71	1089.3	175.4	11.9	1276.6	72.8	1349.4
2014	71	1128.3	167.0	15.2	1310.5	80.7	1391.2
2015	65	1081.3	149.9	5.6	1236.8	80.9	1317.7
2016	74	1255.5	167.7	5.7	1428.9	94.6	1523.5
2017	72	1270.5	171.6	4.7	1446.8	70.1	1516.9
2018	72	1047.0	168.3	4.7	1220.0	70.5	1290.5
2019	72	1209.8	180.8	13.7	1404.3	48.3	1452.6
2020	72	1206.2	180.0	4.3	1390.5	49.3	1439.8
2021	72	1264.1	185.3	4.4	1453.8	50.2	1504.0
2022	72	1356.1	191.8	4.4	1552.3	51.0	1603.3
2023	72	1108.8	188.1	4.5	1301.4	52.0	1353.4
2024	72	1228.1	186.3	4.6	1419.0	52.5	1471.5
2025	46	612.8	150.8	4.2	767.8	53.6	821.4
2026	--	--	24.3	--	24.3	23.9	48.2
Subtotal	1367	21882.7	3054.7	228.9	25166.3	1393.8	26560.1

Annual Funding BY\$
2031 | Procurement | Aircraft Procurement, Army

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2005 \$M	Non End Item Recurring Flyaway BY 2005 \$M	Non Recurring Flyaway BY 2005 \$M	Total Flyaway BY 2005 \$M	Total Support BY 2005 \$M	Total Program BY 2005 \$M
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	14.4	252.2
2007	72	1000.3	79.0	41.8	1121.1	50.1	1171.2
2008	77	1037.8	77.2	57.4	1172.4	55.9	1228.3
2009	66	862.1	82.4	8.1	952.6	43.2	995.8
2010	84	1045.7	152.1	4.0	1201.8	109.8	1311.6
2011	72	932.3	138.1	2.5	1072.9	103.2	1176.1
2012	71	1060.3	136.9	5.0	1202.2	101.1	1303.3
2013	71	915.2	147.4	10.0	1072.6	61.1	1133.7
2014	71	932.1	137.9	12.6	1082.6	66.7	1149.3
2015	65	878.4	121.8	4.5	1004.7	65.7	1070.4
2016	74	1002.8	134.0	4.6	1141.4	75.5	1216.9
2017	72	997.8	134.8	3.7	1136.3	55.1	1191.4
2018	72	808.6	129.9	3.6	942.1	54.5	996.6
2019	72	918.7	137.2	10.4	1066.3	36.7	1103.0
2020	72	900.6	134.4	3.2	1038.2	36.8	1075.0
2021	72	928.1	136.1	3.2	1067.4	36.8	1104.2
2022	72	979.0	138.3	3.2	1120.5	36.9	1157.4
2023	72	787.1	133.5	3.2	923.8	36.9	960.7
2024	72	857.2	130.0	3.2	990.4	36.7	1027.1
2025	46	420.6	103.4	2.9	526.9	36.8	563.7
2026	--	--	16.4	--	16.4	16.1	32.5
Subtotal	1367	17584.3	2413.6	196.7	20194.6	1132.7	21327.3

Cost Quantity Information**2031 | Procurement | Aircraft Procurement, Army**

Fiscal Year	Quantity	End Item Recurring Flyaway (Aligned with Quantity) BY 2005 \$M
2004	--	--
2005	5	70.0
2006	17	174.0
2007	72	914.7
2008	77	1102.8
2009	66	835.1
2010	84	1081.0
2011	72	941.5
2012	71	971.1
2013	71	954.5
2014	71	934.8
2015	65	868.2
2016	74	982.0
2017	72	918.8
2018	72	913.6
2019	72	910.8
2020	72	907.0
2021	72	903.7
2022	72	900.3
2023	72	896.6
2024	72	897.9
2025	46	505.9
2026	--	--
Subtotal	1367	17584.3

Low Rate Initial Production

	Initial LRIP Decision	Current Total LRIP
Approval Date	3/31/2005	3/31/2005
Approved Quantity	40	40
Reference		
Start Year	2005	2005
End Year	2007	2007

The Acquisition Decision Memorandum dated March 31, 2005, contains approval for up to 40 Low Rate Initial Production (LRIP) aircraft units and approval to award Advance Procurement Contract for the first lot of Full Rate Production (FRP) aircraft. Forty (40) LRIP aircraft were procured in FY 2005 - FY 2007. The LRIP aircraft quantity of 40 is less than 10 percent of the total aircraft to be procured.

Foreign Military Sales

Country	Date of Sale	Quantity	Total Cost \$M	Memo
Taiwan	11/22/2010	60	1705.8	
Mexico	8/3/2010	3	79.7	
Bahrain	12/12/2007	9	155.1	
United Arab Emirates	12/12/2007	40	575.0	

Nuclear Cost

None

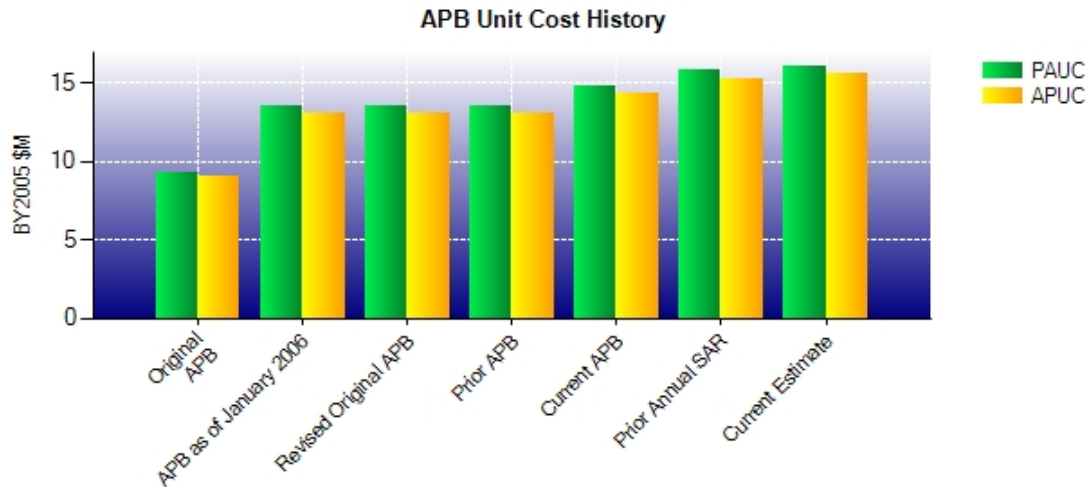
Unit Cost**Unit Cost Report**

	BY2005 \$M	BY2005 \$M	
Unit Cost	Current UCR Baseline (FEB 2007 APB)	Current Estimate (DEC 2010 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	18367.2	22088.6	
Quantity	1235	1375	
Unit Cost	14.872	16.064	+8.02
Average Procurement Unit Cost (APUC)			
Cost	17592.7	21327.3	
Quantity	1227	1367	
Unit Cost	14.338	15.602	+8.82

	BY2005 \$M	BY2005 \$M	
Unit Cost	Revised Original UCR Baseline (MAR 2005 APB)	Current Estimate (DEC 2010 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	16801.7	22088.6	
Quantity	1235	1375	
Unit Cost	13.605	16.064	+18.07
Average Procurement Unit Cost (APUC)			
Cost	16084.2	21327.3	
Quantity	1227	1367	
Unit Cost	13.109	15.602	+19.02

Pursuant to FY 2006 National Defense Authorization Act changes to Section 2433, Title 10, United States Code, the Original Unit Cost Report (UCR) Baseline has been revised to the Acquisition Program Baseline (APB) in effect as of January 2006 (the March 2005 APB), because the unit cost exceeded the original APB by 50 percent.

Unit Cost History



	Date	BY2005 \$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	MAR 2005	13.605	13.109	16.880	16.388
Current APB	FEB 2007	14.872	14.338	18.840	18.319
Prior Annual SAR	DEC 2009	15.822	15.270	19.175	18.625
Current Estimate	DEC 2010	16.064	15.602	19.884	19.429

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	
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 Prod Est	Changes								PAUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
16.880	-0.513	0.675	0.291	0.476	1.562	0.000	0.513	3.004	19.884

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	
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 Prod Est	Changes								APUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
16.388	-0.519	0.728	0.273	0.481	1.562	0.000	0.516	3.041	19.429

SAR Baseline History

Item/Event	SAR Planning Estimate (PE)	SAR Development Estimate (DE)	SAR Production Estimate (PdE)	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	27340.5
Total Quantity	N/A	1221	1235	1375
Prog. Acq. Unit Cost (PAUC)	N/A	12.008	16.880	19.884

Cost Variance**Cost Variance Summary**

Summary Then Year \$M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Prod Est)	739.3	20107.8	--	20847.1
Previous Changes				
Economic	+4.0	-717.1	--	-713.1
Quantity	--	--	--	--
Schedule	+27.5	+305.6	--	+333.1
Engineering	+45.8	+693.0	--	+738.8
Estimating	+11.7	+1994.9	--	+2006.6
Other	--	--	--	--
Support	--	+469.2	--	+469.2
Subtotal	+89.0	+2745.6	--	+2834.6
Current Changes				
Economic	-0.1	+7.2	--	+7.1
Quantity	--	+3291.3	--	+3291.3
Schedule	--	+67.2	--	+67.2
Engineering	-47.9	-35.8	--	-83.7
Estimating	+0.1	+140.4	--	+140.5
Other	--	--	--	--
Support	--	+236.4	--	+236.4
Subtotal	-47.9	+3706.7	--	+3658.8
Total Changes	+41.1	+6452.3	--	+6493.4
CE - Cost Variance	780.4	26560.1	--	27340.5
CE - Cost & Funding	780.4	26560.1	--	27340.5

Summary Base Year 2005 \$M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Prod Est)	717.5	16084.2	--	16801.7
Previous Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	+24.1	+112.1	--	+136.2
Engineering	+51.9	+561.1	--	+613.0
Estimating	+10.1	+1609.3	--	+1619.4
Other	--	--	--	--
Support	--	+370.1	--	+370.1
Subtotal	+86.1	+2652.6	--	+2738.7
Current Changes				
Economic	--	--	--	--
Quantity	--	+2330.0	--	+2330.0
Schedule	--	+10.4	--	+10.4
Engineering	-42.4	-31.8	--	-74.2
Estimating	+0.1	+103.1	--	+103.2
Other	--	--	--	--
Support	--	+178.8	--	+178.8
Subtotal	-42.3	+2590.5	--	+2548.2
Total Changes	+43.8	+5243.1	--	+5286.9
CE - Cost Variance	761.3	21327.3	--	22088.6
CE - Cost & Funding	761.3	21327.3	--	22088.6

Previous Estimate: December 2009

RDT&E	\$M	
	Base Year	Then Year
Current Change Explanations		
Revised escalation indices. (Economic)	N/A	-0.1
Upgrade technology efforts descoped from Program of Record. (Engineering)	-42.4	-47.9
Adjustment for current and prior escalation. (Estimating)	+0.1	+0.1
RDT&E Subtotal	-42.3	-47.9

Procurement	\$M	
	Base Year	Then Year
Current Change Explanations		
Revised escalation indices. (Economic)	N/A	+7.2
Total Quantity variance resulting from an increase of 140 H-60Ms from 1227 to 1367. Aviation Synchronization Conference Council of Colonels Authorized Acquisition Objective increase. (Subtotal)	+1794.8	+2579.0
Quantity variance resulting from an increase of 140 H-60Ms from 1227 to 1367. Aviation Synchronization Conference Council of Colonels Authorized Acquisition Objective increase. (Quantity)	(+1692.6)	(+2432.2)
Allocation to Schedule resulting from Quantity change. (Schedule) (QR)	(+10.4)	(+15.0)
Allocation to Engineering resulting from Quantity change. (Engineering) (QR)	(+23.7)	(+34.1)
Allocation to Estimating resulting from Quantity change. (Estimating) (QR)	(+68.1)	(+97.7)
Additional Quantity variance for the increase of 140 H-60M aircraft. (Quantity)	+637.4	+859.1
Stretch-out of procurement buy profile. Aviation Synchronization Conference Council of Colonels Authorized Acquisition Objective increase. Quantities added to end of the program. (Schedule)	0.0	+52.2
Adjustment for current and prior escalation. (Estimating)	+2.2	+2.2
Deletion of ALQ-144 as requirement for system. (Engineering)	-55.5	-69.9
Increase in New Equipment Training for home station. (Estimating)	+14.5	+16.5
Increase due to additional trainers required for increase in total aircraft procured. (Estimating)	+18.3	+24.0
Adjustment for current and prior escalation. (Support)	0.0	+0.2
Increase in Initial Spares. Increase of 140 H-60Ms from 1227 to 1367. Aviation Synchronization Conference Council of Colonels Authorized Acquisition Objective increase. (Support) (QR)	+51.0	+66.0
Increase in Other Support. Increase of 140 H-60Ms from 1227 to 1367. Aviation Synchronization Conference Council of Colonels Authorized Acquisition Objective increase. Additional quantities drive additional fielding cost (transportation, initial support equipment). (Support) (QR)	+127.8	+170.2
Procurement Subtotal	+2590.5	+3706.7

(QR) Quantity Related

Contracts

Appropriation: Procurement

Contract Name	Multiyear/MultiService H-60 Production Contract
Contractor	Sikorsky Aircraft Corp
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
3938.8	N/A	308	4658.7	N/A	371	4658.7	4658.7

Cost And Schedule Variance Explanations

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

Contract Comments

On December 12, 2007, the Army awarded the Multiyear/MultiService H-60 Production contract, W58RGZ-08-C-0003, to Sikorsky Aircraft Corporation. This is a Firm Fixed Price contract valued at approximately \$7.4B which procures H-60 aircraft for the Army and Navy. In FY 2007 a total of 72 aircraft were procured (67 UH and 5 HH); in FY 2008 a total of 77 aircraft were procured (37 UH and 40 HH); in FY 2009 a total of 66 aircraft were procured (53 UH and 13 HH); in FY 2010 a total of 84 aircraft were procured (61 UH and 23 HH) and in FY 2011 a total of 72 aircraft are planned to be procured (48 UH and 24 HH).

Original Contract Value increased from \$3,938.8 to \$4,658.7 due to the addition of supplemental aircraft.

Deliveries and Expenditures

Deliveries To Date	Plan To Date	Actual To Date	Total Quantity	Percent Delivered
Development	8	8	8	100.00%
Production	253	264	1367	19.31%
Total Program Quantities Delivered	261	272	1375	19.78%

Expenditures and Appropriations (TY \$M)			
Total Acquisition Cost	27340.5	Years Appropriated	12
Expenditures To Date	6064.0	Percent Years Appropriated	44.44%
Percent Expended	22.18%	Appropriated to Date	7731.7
Total Funding Years	27	Percent Appropriated	28.28%

Deliveries to Date are through December 31, 2010. First Unit Equipped was achieved on February 29, 2008 with 10 UH-60M Baseline aircraft fielded to the 159th Combat Aviation Brigade (CAB).

Operating and Support Cost

Assumptions And Ground Rules

The latest estimate was approved by the Army Cost Position on April 26, 2007. The maintenance concept for the UH-60M is organic, two-level maintenance with the exception of the training base. The training base will continue to be Contractor Logistics Support. The Active Army (AA) Operational TEMPO (OPTEMPO) for each aircraft is 239 annual flight hours. The National Guard (NG) OPTEMPO for each aircraft is 168 annual flight hours. The estimated service life for each aircraft is 20 years. The total number of flight hours (including all AA and NG aircraft in operation for 20 years service life) is 6,019,000 hours. The 6,019,000 hours are calculated as the Active Army aircraft (1042) x the AA OPTEMPO (239) x service life (20 years) plus the National Guard aircraft (309) x the NG OPTEMPO (168) x service life (20 years). Aircraft production began in FY 2005 and Operations and Support (O&S) began in FY 2006 for the UH-60M.

The total O&S Costs are derived by multiplying the associated O&S cost per flight hour by the sum of Active Army and National Guard total flight hours. Equation: Cost per flight hour x AA and NG flight hours.

The total O&S Costs for UH-60L were not reported in the last UH-60L Selected Acquisition Report dated December 31, 1999. The information in the table below is based on Operation and Support Management Information System (OSMIS) data for the UH-60L (excluding Concept of Operations (CONOPS)). Sustaining support costs for the UH-60L 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.

Cost Element	Costs BY2005 \$M	
	UH-60M BLACK HAWK Avg Cost per 1,000 Flying Hrs	UH-60L Avg Cost per 1,000 Flying Hrs
Unit-Level Manpower	--	--
Unit Operations	0.290	0.290
Maintenance	2.661	2.285
Sustaining Support	0.005	--
Continuing System Improvements	0.036	--
Indirect Support	1.150	1.150
Other	--	--
Total Unitized Cost (Base Year 2005 \$)	4.142	3.725

Total O&S Costs \$M	UH-60M BLACK HAWK	UH-60L
Base Year	24930.7	--
Then Year	36896.2	--