



Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-182



Light Utility Helicopter (LUH)

As of FY 2011 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

Light Utility Helicopter (LUH), UH-72A Lakota (LUH, UH-72A Lakota)

DoD Component

Army

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Date

Assigned: July 1, 2007

References

SAR Baseline (Production Estimate)

Army Acquisition Executive (AAE) Approved Acquisition Program Baseline (APB) dated June 29, 2006

Approved APB

Army Acquisition Executive (AAE) Approved Acquisition Program Baseline (APB) dated August 22, 2007

Mission and Description

The Army currently utilizes a mix of rotary wing aircraft to accomplish a wide range of administrative and logistical missions, as well as supporting the Homeland Security (HLS) role assigned to selected units of the Army National Guard. These aircraft provide General Support (GS) at various posts, camps, and stations both in the Continental United States and Outside the Continental United States. In most instances, the aircraft now assigned to these missions have reached their serviceable life limit and must be replaced. In other cases, the aircraft used in this role are UH-60 Black Hawks, which are much more capable than required for the role and are more costly to operate and maintain. The light, GS mission requirements are satisfied by Tables of Organization and Equipment (TOE) and Tables of Distribution and Allowances (TDA) aircraft within both active and reserve components. GS TOE mission requirements include time-sensitive transport for urgently needed supplies, parts, equipment, documents, and/or personnel. The TDA light GS mission needs include observer/controller aircraft at Combat Training Centers, aircraft to provide force protection and installation security in sensitive areas (e.g., test sites, ranges, etc.), and chase/instrumentation aircraft for technical or operational testing.

The Light Utility Helicopter (LUH) UH-72A platform will provide the flexibility to respond to HLS requirements, conduct civil search and rescue operations, support test and training centers, support counterdrug operations, and perform Medical Evacuation (MEDEVAC) missions. The LUH will conduct GS utility helicopter missions and execute tasks as part of an integrated effort with other joint services, government agencies, and non-governmental organizations. The LUH is to be deployed only to non-combat, permissive environments and is to conduct primarily three missions: medical and casualty evacuations, general support, and reconnaissance and surveillance.

Crew seating is comprised of two individual longitudinally adjustable energy absorbing pilot and copilot seats with head rest and four-point safety belts with automatic locking system. The passenger seats have a four-point restraint harness with adjusters in both shoulder straps and the lap belt with a single-action, 45-degree lost-motion rotary buckle. When equipped for MEDEVAC operations to accommodate two North Atlantic Treaty Organization standard litters, passenger seating is limited to a medical attendant and a crew chief.

The aircraft is equipped with modern cockpit communication and navigation avionics required to operate with civilian airspace systems. The cockpit is arranged and lit to be compatible with night vision devices. Included in the avionics are a radar altimetry, full autopilot, and a unique First Limit Indicator, which further simplifies engine monitoring and reduces pilot workload.

The UH-72A is a Federal Aviation Administration (FAA) rotorcraft certified to the airworthiness standards of Title 14, Federal Aviation Regulations Part 29. Part 29 applies to transport category rotorcraft which are defined as having nine or more seats and gross weights of more than 7,000 pounds.

In addition, the aircraft include provisions for MEDEVAC and hoist kits, as well as four approved modifications: Secure Communications, Cabin Temperature/Ventilation System, Engine Inlet Barrier Filter, and MEDEVAC Interior Kit (storage).

Executive Summary

In early 2008 Operational Needs Statements (ONS) were issued for the Light Utility Helicopter (LUH) program that approved requirements for the following modifications: Environmental Control Unit (ECU), Very Important Personnel (VIP) Mission Equipment Package (MEP), and Combat Training Center (CTC) MEP. A total of 14 aircraft will receive the VIP MEP and 106 ECUs will be installed. The LUH program successfully completed execution of the UH-72A Logistics Demonstration in March 2008. The LUH program successfully completed execution of the first LUH Army National Guard fielding First Unit Equipped (FUE) to the Mississippi National Guard Unit on June 2, 2008. The ventilation system modification was integrated into the production line for all aircraft beginning with LUH #29. LUH Aircraft #1 through #28 were retrofitted with the ventilation system modification.

In Fiscal Year 2008 (FY08), incremental procurement funding for FY10-15 was received as part of the President's Budget (PB09) to smooth production quantities. This incremental funding shortened the procurement program by one year and helped the program reach incremental price breaks thus reducing total program costs. In July 2008, the LUH program received a record of five aircraft in one month, the maximum delivery rate per the contract. The production line also achieved the first Full Assembly Line (FAL) aircraft of the LUH program. The FAL is the second phase of the three-phase production duplication process in which production stations 01 through 06 are completed in Donauwörth, Germany, and stations 07 through 14 are completed in Columbus, Mississippi. The first Engine Inlet Barrier Filter (EIBF) was delivered with LUH #26 on July 31, 2008. The first pre-DD250 installation of an ECU was completed on LUH #42 and was delivered in October 2008. On September 12, 2008, five UH-72A helicopters were purchased for the US Navy Test Pilot School (TPS) under the Program Year (PY) three option of the Army's LUH contract. The aircraft will be utilized by the TPS at the Patuxent River Naval Air Station for the training of Experimental Test Pilots from all branches of the Service.

It was determined in 2008 that as part of the Acquisition Strategy, the LUH program must provide for one year of Contractor Field Service Representative (CFSR) support to each Army National Guard unit receiving the UH-72A. The CFSR provides on-site, dedicated technical and logistical support to Army National Guard helicopter maintenance personnel. The LUH program office has provided for CFSR support across 12 states thus far. Medical Evacuation (MEDEVAC) aircraft quantities were increased to a total of 90 aircraft with Aviation Transformation Implementation Conference (ATIC) 16.

The PY four contract option was awarded on November 26, 2008, for 39 aircraft. This was subsequently modified on January 15, 2009, for an additional five aircraft for a total of 44. The Space and Missile Defense Command (SMDC) MEP ONS was approved on December 30, 2008. This unit funded modification will add a high visibility paint scheme, floats, jettisonable doors, and life raft to those aircraft.

In FY09, the LUH program office awarded to EADS-North America a contract to expand the operator training ranges in PYs four through ten, to accommodate additional slots for unit funded sustainment training. These additional training slots reduce overall training cost per person due to incremental price breaks in the contract. The three-phase production duplication continues to move forward as planned. LUH #43 was the last of the aircraft that received flight test in Germany. The program received 12 of the second phase FAL aircraft and four of the third phase production line aircraft.

The PY five contract option was awarded on December 1, 2009, for 45 aircraft. A contract modification was awarded December 14, 2009, for one additional aircraft (the contract option for remaining eight aircraft was awarded on February 1, 2010). Additional funding of \$3.9 million has been provided under SSN AAO 492 for the Integrated Vehicle Health Management System (IVHMS) demonstration.

Sixteen aircraft were equipped with the EIBF and fielded to the National Training Center (NTC). A further six aircraft received the EIBF and were fielded to Army Reserve National Guard (ARNG) unit in Austin, Texas. Ninety-three aircraft were delivered as of December 31, 2009. The program continues to work on the prototyping and integration of the ARNG funded Security and Support (S&S) Battalion MEP, which will complete testing in 2010, as well as the CTC MEP to support training at the NTC, the Joint Readiness Training Center (JRTC), and the Joint Multi-National Readiness Center (JMRC).

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

Threshold Breaches

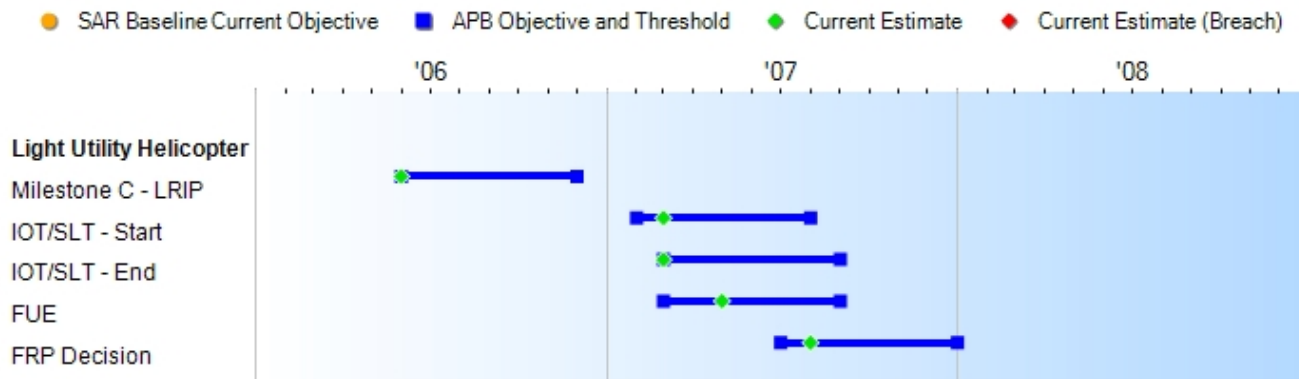
APB Breaches

- Schedule
- Performance
- Cost
 - RDT&E
 - Procurement
 - MILCON
 - Acq O&M
- O&S Cost
- Unit Cost
 - PAUC
 - APUC

Nunn-McCurdy Breaches

- Current UCR Baseline**
 - PAUC None
 - APUC None
- Original UCR Baseline**
 - PAUC None
 - APUC None

Schedule



Schedule Events				
Events	SAR Baseline Production Estimate	Current APB Production Objective/Threshold		Current Estimate
Milestone C - LRIP	Jun 2006	Jun 2006	Dec 2006	Jun 2006
IOT/SLT - Start	Feb 2007	Feb 2007	Aug 2007	Mar 2007
IOT/SLT - End	Mar 2007	Mar 2007	Sep 2007	Mar 2007
FUE	Mar 2007	Mar 2007	Sep 2007	May 2007
FRP Decision	May 2007	Jul 2007	Jan 2008	Aug 2007

Change Explanations

None

Notes

Acronyms and Abbreviations

FRP - Full Rate Production
 FUE - First Unit Equipped
 IOT - Initial Operational Test
 LRIP - Low Rate Initial Production
 SLT - System Level Test

Performance

Performance Characteristics				
SAR Baseline Production Estimate	Current APB Production Objective/Threshold	Demonstrated Performance	Current Estimate	
Net Ready / Voice Interoperability (KPP)%				
100% Secure Comms	100% Secure Comms	100% Military/Civilian Public Safety Comms	100% Military/Civilian Public Safety Comms	100% Military/Civilian Public Safety Comms
Cabin Size (KPP)				
6 Seats/ 2 NATO Litters & 1 Medical Attendant	6 Seats/ 2 NATO Litters & 1 Medical Attendant	6 Seats/ 2 NATO Litters & 1 Medical Attendant	6 Seats/ 2 NATO Litters & 1 Medical Attendant	6 Seats/ 2 NATO Litters & 1 Medical Attendant
Force Protection (KPP)				
Air Warrior	Air Warrior	Air Warrior Ensemble	Air Warrior Ensemble	Air Warrior Ensemble
Survivability (KPP)				
1994 FAA STD	1994 FAA STD	1989 FAA STD	1994 FAASTD	1994 FAASTD
Performance (KPP)				
HOGE at STD Day	HOGE at STD Day	HOGE at STD Day	HOGE at STD Day	HOGE at STD Day

Requirements Reference

Capability Development Document (CDD) Version 9.0 dated September 30, 2005 (Joint Requirements Oversight Council Memorandum 216-06 dated October 18, 2006 accepted the CDD in lieu of a separate Capability Production Document (CPD))

Change Explanations

None

Notes

In reference to the Net Ready / Voice Interoperability Key Performance Parameter (KPP), UH-72A has demonstrated and currently meets the threshold and commercial secure communication requirements. The LUH public safety radios can be encrypted and provide commercial secure communications. A modification to integrate the ARC-231 radio into the UH-72A will provide for military secure communications.

In reference to the Force Protection KPP, the Air Warrior ensemble includes chemical protective undergarment, anti-exposure suite, primary survival gear carrier, flotation collar and survival knife with sheath. It excludes the Air Warrior MicroClimate Unit.

In reference to the Survivability KPP, the UH-72A platform meets the requirements of Title 14 of the Code of Federal Regulations (CFR), Part 29, Sections 561, 562, 785 and 952 as of December 31, 1994. These sections define Federal Aviation Regulations for design and qualification of seating, restraint systems, fuel systems and aircraft structure. These standards protect aircraft occupants from excessive impact loads through dissipation of crash energy via deformation of

structure, flammability requirements, and retention of objects inside the aircraft to reduce the severity and occurrence of secondary impacts.

Regarding the Performance KPP, standard (STD) day is sea level pressure and altitude, and 59 degrees Fahrenheit conditions. Numerical values assigned to this KPP are 906 pounds Hover Out of Ground Effect (HOGE) at STD day conditions for both Threshold and Objective. Current demonstrated performance value is 1244 pounds HOGE at STD day conditions.

The UH-72A aircraft continues to perform to these KPPs and there has been no change since the December 2007 SAR.

Acronyms and Abbreviations

Comms - Communications

FAA - Federal Aviation Administration

HOGE - Hover Out of Ground Effect

KPP - Key Performance Parameter

LUH - Light Utility Helicopter

NATO - North Atlantic Treaty Organization

STD - Standard

Track to Budget

General Notes

RDT&E funds are accounted for in the UH-60 PE 273744, and are sunk costs not tracked against this program.

Procurement funds are accounted for in the LUH APA line, SSN A05001, which is shared with modification costs. Modification costs should not be considered as part of the acquisition cost of the program.

LUH modification funds are accounted for in aircraft appropriation line ICN AA0492 and are shared with other utility modifications.

RDT&E

Appn	BA	PE	
Army	2040	07	0273744A
	Project	Name	
	D16	Light Utility Helicopter (Shared) (Sunk)	

Procurement

Appn	BA	PE	
Army	2031	01	11204742
	Line Item	Name	
	A05001	Light Utility Helicopter (Shared)	

Cost and Funding

Cost Summary

Total Acquisition Cost							
Appropriation	BY 2006 \$M			BY 2006 \$M	TY \$M		
	SAR Baseline Production Estimate	Current APB Production Objective/Threshold		Current Estimate	SAR Baseline Production Estimate	Current APB Production Objective	Current Estimate
RDT&E	3.2	3.2	4.2	3.2	3.1	3.1	3.1
Procurement	1635.1	1704.9	1875.4	1805.1	1879.9	1958.6	2000.5
Flyaway	--	--	--	1703.4	--	--	1886.0
Recurring	--	--	--	1684.3	--	--	1865.2
Non Recurring	--	--	--	19.1	--	--	20.8
Support	--	--	--	101.7	--	--	114.5
Other Support	--	--	--	101.7	--	--	114.5
Initial Spares	--	--	--	0.0	--	--	0.0
MILCON	0.0	0.0	--	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	--	0.0	0.0	0.0	0.0
Total	1638.3	1708.1	N/A	1808.3	1883.0	1961.7	2003.6

Cost Notes

Total Quantity			
Quantity	SAR Baseline Production Estimate	Current APB Production	Current Estimate
RDT&E		0	0
Procurement		322	345
Total		322	345

Quantity Notes

In November 2007 the Army Acquisition Objective was increased from a quantity of 322 aircraft to 345 aircraft, and medical evacuation equipment requirements increased from 78 kits to 84 kits total.

Cost and Funding

Funding Summary

Appropriation Summary									
FY 2011 President's Budget / December 2009 SAR (TY\$ M)									
Appropriation	Prior	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total
RDT&E	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1
Procurement	692.9	302.5	293.1	264.1	255.8	134.5	0.0	57.6	2000.5
MILCON	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PB 2011 Total	696.0	302.5	293.1	264.1	255.8	134.5	0.0	57.6	2003.6
PB 2009 Total	695.6	159.8	134.0	252.2	250.8	176.8	177.7	243.3	2090.2
Delta	0.4	142.7	159.1	11.9	5.0	-42.3	-177.7	-185.7	-86.6

Quantity Summary										
FY 2011 President's Budget / December 2009 SAR (TY\$ M)										
Quantity	Undistributed	Prior	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total
Development	0	0	0	0	0	0	0	0	0	0
Production	0	128	54	50	44	44	20	0	5	345
PB 2011 Total	0	128	54	50	44	44	20	0	5	345
PB 2009 Total	0	121	25	18	41	43	30	30	37	345
Delta	0	7	29	32	3	1	-10	-30	-32	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
2004	--	--	--	--	--	--	3.1
Subtotal	--	--	--	--	--	--	3.1

Annual Funding 2040 RDT&E Research, Development, Test, and Evaluation, Army							
Fiscal Year	Quantity	BY 2006 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2004	--	--	--	--	--	--	3.2
Subtotal	--	--	--	--	--	--	3.2

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	
2005	--	--	2.0	--	2.0	--	2.0	
2006	16	79.9	7.0	1.0	87.9	0.8	88.7	
2007	26	123.4	7.4	3.2	134.0	8.6	142.6	
2008	42	204.1	5.4	3.3	212.8	4.5	217.3	
2009	44	218.1	9.0	3.1	230.2	12.1	242.3	
2010	54	275.8	9.5	3.4	288.7	13.8	302.5	
2011	50	262.5	9.8	3.7	276.0	17.1	293.1	
2012	44	233.4	10.1	3.1	246.6	17.5	264.1	
2013	44	232.4	9.0	--	241.4	14.4	255.8	
2014	20	110.6	9.1	--	119.7	14.8	134.5	
2015	--	--	--	--	--	--	--	
2016	5	28.0	18.7	--	46.7	10.9	57.6	
Subtotal	345	1768.2	97.0	20.8	1886.0	114.5	2000.5	

Annual Funding 2031 Procurement Aircraft Procurement, Army								
Fiscal Year	Quantity	BY 2006 \$M						
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program	
2005	--	--	2.0	--	2.0	--	2.0	
2006	16	77.4	6.7	1.0	85.1	0.8	85.9	
2007	26	117.1	7.0	3.0	127.1	8.3	135.4	
2008	42	190.8	5.0	3.1	198.9	4.2	203.1	
2009	44	201.4	8.3	2.9	212.6	11.1	223.7	
2010	54	251.4	8.7	3.1	263.2	12.5	275.7	
2011	50	235.3	8.8	3.3	247.4	15.3	262.7	
2012	44	205.7	8.9	2.7	217.3	15.5	232.8	
2013	44	201.4	7.8	--	209.2	12.5	221.7	
2014	20	94.3	7.8	--	102.1	12.5	114.6	
2015	--	--	--	--	--	--	--	
2016	5	23.1	15.4	--	38.5	9.0	47.5	
Subtotal	345	1597.9	86.4	19.1	1703.4	101.7	1805.1	

Low Rate Initial Production

Item	Initial LRIP Decision	Current Total LRIP
Approval Date	6/8/2006	6/8/2006
Approved Quantity	42	42
Reference	Acquisition Decision Memorandum (ADM) dated June 20, 2006	Acquisition Decision Memorandum (ADM) dated June 20, 2006
Start Year	2006	2006
End Year	2007	2007

The Light Utility Helicopter (LUH) Low Rate Initial Production (LRIP) Acquisition Decision Memorandum (ADM) dated June 20, 2006, authorized an LRIP quantity of no more than 42 aircraft. The LUH LRIP quantity exceeds 10 percent of the total aircraft quantity procured because that is the minimum quantity necessary to establish an initial production base for the system and to permit an orderly increase in the production rate sufficient to lead to Full-Rate Production (FRP) upon successful completion of the testing.

LRIP aircraft were procured in 2006 and 2007, with the remaining aircraft to be procured under FRP. The ADM approving FRP was signed on August 23, 2007.

Foreign Military Sales

None

Nuclear Costs

None

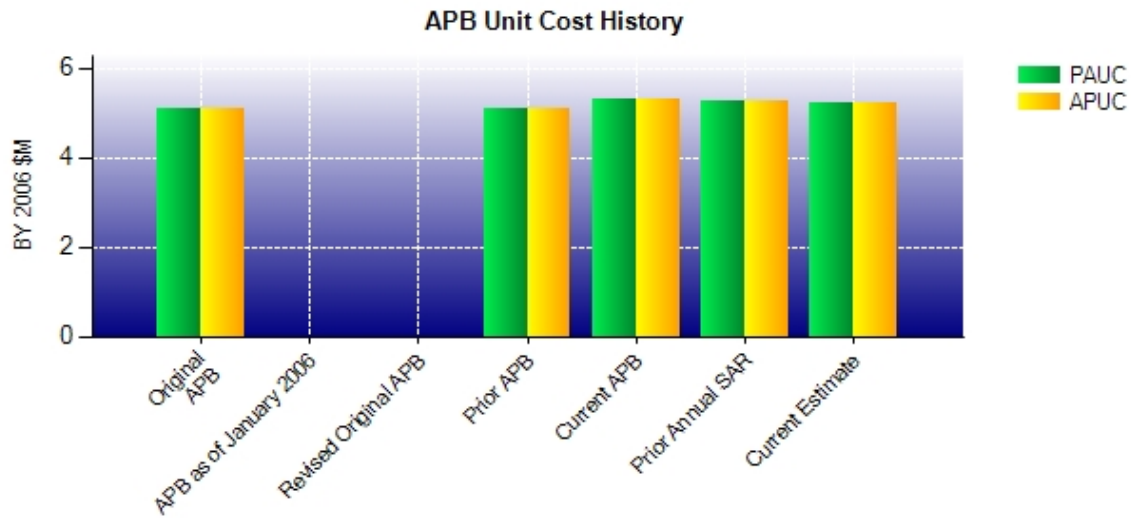
Unit Cost

Unit Cost Report

Item	BY 2006 \$M	BY 2006 \$M	% Change
	Current UCR Baseline (Aug 2007 APB)	Current Estimate (Dec 2009 SAR)	
Program Acquisition Unit Cost			
Cost	1708.1	1808.3	
Quantity	322	345	
Item	5.305	5.241	-1.21
Average Procurement Unit Cost			
Cost	1704.9	1805.1	
Quantity	322	345	
Unit Cost	5.295	5.232	-1.19

Item	BY 2006 \$M	BY 2006 \$M	% Change
	Original UCR Baseline (Jun 2006 APB)	Current Estimate (Dec 2009 SAR)	
Program Acquisition Unit Cost			
Cost	1638.3	1808.3	
Quantity	322	345	
Unit Cost	5.088	5.241	+3.01
Average Procurement Unit Cost			
Cost	1635.1	1805.1	
Quantity	322	345	
Unit Cost	5.078	5.232	+3.03

Unit Cost History



Item	Date	BY 2006 \$M		TY \$M	
		PAUC	APUC	PAUC	APUC
Original APB	Jun 2006	5.088	5.078	5.848	5.838
APB as of January 2006	N/A	N/A	N/A	N/A	N/A
Revised Original APB	N/A	N/A	N/A	N/A	N/A
Prior APB	Jun 2006	5.088	5.078	5.848	5.838
Current APB	Aug 2007	5.305	5.295	6.092	6.083
Prior Annual SAR	Dec 2007	5.275	5.266	6.059	6.050
Current Estimate	Dec 2009	5.241	5.232	5.808	5.799

SAR Unit Cost History

Current SAR Baseline to Current Estimate (TY \$M)									
Initial PAUC Production Estimate	Changes								PAUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
5.848	-0.146	0.015	-0.019	0.246	-0.234	0.000	0.098	-0.040	5.808

Current SAR Baseline to Current Estimate (TY \$M)									
Initial APUC Production Estimate	Changes								APUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
5.838	-0.146	0.016	-0.019	0.246	-0.234	0.000	0.098	-0.039	5.799

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	N/A	N/A	N/A
Milestone C	N/A	N/A	Jun 2006	Jun 2006
FUE	N/A	N/A	Mar 2007	May 2007
Total Cost (TY \$M)	N/A	N/A	1883.0	2003.6
Total Quantity	N/A	N/A	322	345
PAUC	N/A	N/A	5.848	5.808

Cost Variance

Summary TY \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Production Estimate)	3.1	1879.9	--	1883.0
Previous Changes				
Economic	--	-5.3	--	-5.3
Quantity	--	+139.3	--	+139.3
Schedule	--	-2.1	--	-2.1
Engineering	--	+84.9	--	+84.9
Estimating	--	-8.0	--	-8.0
Other	--	--	--	--
Support	--	-1.6	--	-1.6
Subtotal	--	+207.2	--	+207.2
Current Changes				
Economic	--	-44.9	--	-44.9
Quantity	--	--	--	--
Schedule	--	-4.5	--	-4.5
Engineering	--	--	--	--
Estimating	--	-72.7	--	-72.7
Other	--	--	--	--
Support	--	+35.5	--	+35.5
Subtotal	--	-86.6	--	-86.6
Total Changes	--	+120.6	--	+120.6
Current Estimate	3.1	2000.5	--	2003.6

Summary BY 2006 \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Production Estimate)	3.2	1635.1	--	1638.3
Previous Changes				
Economic	--	--	--	--
Quantity	--	+110.5	--	+110.5
Schedule	--	+6.9	--	+6.9
Engineering	--	+74.4	--	+74.4
Estimating	--	-9.6	--	-9.6
Other	--	--	--	--
Support	--	-0.7	--	-0.7
Subtotal	--	+181.5	--	+181.5
Current Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	+23.1	--	+23.1
Engineering	--	--	--	--
Estimating	--	-66.8	--	-66.8
Other	--	--	--	--
Support	--	+32.2	--	+32.2
Subtotal	--	-11.5	--	-11.5
Total Changes	--	+170.0	--	+170.0
Current Estimate	3.2	1805.1	--	1808.3

Previous Estimate: December 2007

Procurement	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-44.9
Schedule variance due to changes in fielding schedule, acceleration of program and program quantity breakpoints. (Schedule)	+23.1	+27.1
Acceleration of procurement buy profile. (Schedule)	0.0	-31.6
Adjustment for current and prior escalation. (Estimating)	+6.1	+6.7
Adjustment to remove modification costs that are not considered part of the acquisition cost. (Estimating)	-56.2	-62.6
Reduction in engineering services requirement for emerging program. (Estimating)	-6.9	-7.1
Reduction in unit cost due to incremental price breaks in the contract structure. (Estimating)	-8.8	-8.7
Reduction in testing requirements. (Estimating)	-1.0	-1.0
Adjustment for current and prior escalation. (Support)	+0.3	+0.3
Increase in Other Support. (Support)	+31.9	+35.2
Procurement Subtotal	-11.5	-86.6

Contracts

Contract Identification

Appropriation: Procurement
Contract Name: LUH Production & Service
Contractor: EADS-NA Defense Co.
Contractor Location: Arlington, VA 22209-3122
Contract Number: W58RGZ-06-C-0194
Contract Type: Firm Fixed Price (FFP)
Award Date: June 30, 2006
Definitization Date: June 30, 2006

Contract Price							
Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
51.1	N/A	8	996.2	N/A	174	996.2	996.2

Cost and Schedule Variance Explanations

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

Notes

The LUH production contract was awarded on June 30, 2006 for Federal Aviation Administration (FAA) certified, Commercial/Non-Developmental Item aircraft to European Aeronautical Defense and Space Company - North America. These aircraft will be operated and maintained in accordance with FAA regulations and Original Equipment Manufacturer procedures for the life of the system; support will be executed through life cycle Contractor Logistics Support (CLS) (Full and/or Hybrid).

The contract has increased from the initial value of \$51.1M to \$996.2M primarily due to the purchase of an additional 166 aircraft bringing the total number of aircraft purchased to date to 174. Other modifications that have increased contract value include the purchase of a procedural trainer, additional hoist and Medical Evacuation (MEDEVAC) B kits, pilot and maintainer training, additional Contractor Field Service Representative (CFSR) support, Contractor Field Team (CFT) support, engineering service efforts, and CLS. Approved modifications include cabin temperature ventilation kits, Engine Inlet Barrier Filter (EIBF) kits, ARC-231 radios, MEDEVAC mission kit, Environmental Control Units (ECU) and Very Important Personnel (VIP) kits. A contract modification was executed February 1, 2010, to add an additional eight aircraft due to Continuing Resolution Authority (CRA) impacts, bringing the total aircraft on contract to 182.

The estimated price at completion contract value reflects the value of the contract options exercised as of December 31, 2009, and does include modification procurement costs.

Deliveries and Expenditures

Deliveries				
Delivered to Date	Planned to Date	Actual to Date	Total Quantity	Percent Delivered
Development	0	0	0	--
Production	93	93	345	26.96%
Total Program Quantity Delivered	93	93	345	26.96%

Expended and Appropriated (TY \$M)			
Total Acquisition Cost	2003.6	Years Appropriated	7
Expended to Date	986.4	Percent Years Appropriated	53.85%
Percent Expended	49.23%	Appropriated to Date	998.5
Total Funding Years	13	Percent Appropriated	49.84%

Deliveries are through December 2009. Expenditures include total program procurement obligations through December 31, 2009, in TY\$M. It does not include any RDT&E expenditures.

Operating and Support Cost

Assumptions and Ground Rules

The support estimate was developed as part of the Army Cost Position (ACP) and was approved in May 2006. An update to the ACP occurred in July 2007 in support of the Full Rate Production (FRP) decision. The LUH is a Federal Aviation Administration (FAA) Certified, Commercial / Non-Developmental Item aircraft to be operated and maintained in accordance with FAA regulations and Original Equipment Manufacturer procedures for the life of the system; support will be executed through lifecycle Contractor Logistics Support (CLS) Full and/or Hybrid CLS. Full CLS provides support at both field and depot/sustainment levels. The Contractor provides all facets of Integrated Logistics Support (ILS) including but not limited to maintenance, supply, transportation, publications, facilities, packaging, handling, storage, and disposal. Under Hybrid CLS, the Army National Guard (ARNG) will perform only field level maintenance with the contractor providing depot/sustainment level maintenance and all other aspects of ILS at both field and depot/sustainment levels. Hybrid CLS will be executed as a contract option. LUH will have an expected 20 year useful life for 345 operational aircraft when fully fielded, and an average Operating Tempo (OPTEMPO) flying hour profile of 250 hours per year.

Average annual operational cost per aircraft is calculated based on total operation costs divided by the number of systems, then divided by the expected useful life of the system. All unit costs are in BY06\$ in thousands.

Operating and Support (O&S) costs are identified in each of the following elements:

Unit Level Consumption reflects the Petroleum, Oil and Lubricants (POL), which include costs associated with the requirement for both the Army and ARNG units to supply the POL to operate the aircraft.

Sustaining Support includes costs associated with the requirement for systems engineering management, sustainment training package, sustainment training, environmental impact, Cost and Software Data Reporting and miscellaneous Operation and Maintenance costs.

CLS includes costs associated with the requirement for maintenance labor, establishment of field level support service reparables and consumables, replenishment reparables and consumables, procedural trainer device support, peculiar support equipment and contractor field team support.

Installation Support includes costs associated with the requirement for the contractor support force structure at both the Army and ARNG units.

Overhaul/Rework includes costs associated with the requirement for end item supply and maintenance, transportation for damaged aircraft, and demilitarization and disposal.

The Other Cost Category includes the following average annual cost per aircraft (in thousands): Contractor Logistics Support \$457.97; Installation Support \$12.69; Overhaul and Rework \$26.24.

Antecedent System - UH-60L

The antecedent system used for this comparison to the LUH is the UH-60L. While these systems are both utility helicopters, they are supported very differently. The table below reflects the UH-60L O&S data for an organically supported system. It does not include any costs for the maintenance labor which is provided by military personnel. The LUH is supported by lifecycle CLS; therefore, the cost element categories are not directly comparable. LUH CLS includes maintenance and depot labor, which is supplied by the contractor.

The UH-60L O&S costs are calculated on a flying hour basis, whereas LUH is calculated as an average annual cost per aircraft. Approximate Blackhawk operational tempo (OPTEMPO) rate is 250 hours per year.

LUH O&S cost has increased since 2007 as a direct result of approved fielding schedule changes, program acceleration,

and an increase in the CLS flying hour support costs due to Department of Army (DA) directed and Operational Needs Statement approved modification support cost.

Cost Estimate Reference:

None

Sustainment Strategy:

None

Antecedent Information:

None

Unitized O&S Costs BY2006 \$K		
Cost Element	Light Utility Helicopter Average Annual Cost Per Aircraft	Black Hawk UH60L (Antecedent) Av Cost Per 250 Flying Hours
Mission Pay & Allowance	0.000	0.000
Unit Level Consumption	86.600	204.250
Intermediate Maintenance	0.000	9.000
Depot Maintenance	0.000	461.000
Contractor Support	0.000	28.500
Sustaining Support	62.140	0.000
Indirect	0.000	0.000
Other	496.900	0.000
Total	645.640	702.750

Unitized Cost Comments:

None

Item	Total O&S Cost \$M			
	Light Utility Helicopter		Black Hawk UH60L (Antecedent)	
	Current Production APB Objective/Threshold	Current Estimate		
Base Year	2763.6	3040.0	4454.9¹	0.0
Then Year	3891.5	N/A	5882.6	0.0

¹ APB O&S Cost Breach

Total O&S Cost Comment

Disposal Estimate Details

Date of Estimate:

Source of Estimate:

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