Selected Acquisition Report (SAR)

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

LUH

As of December 31, 2010

Defense Acquisition Management
Information Retrieval
(DAMIR)

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Program Information

Designation And Nomenclature (Popular Name)

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

DoD Component

Army

Responsible Office

Responsible Office

Col L. Neil Thurgood
Utility Helicopters Project Office
SFAE-AV-UH
Program Executive Office Aviation
Redstone Arsenal, AL 35898-5000
neil.thurgood@us.army.mil

Phone 256-955-8939
Fax 256-955-8109
DSN Phone 645-8939
DSN Fax --

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

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).

Operational Needs Statements (ONS) have also been issued that approve requirements for the following modifications: Environmental Control Unit, Very Important Personnel (VIP) Mission Kit, and Combat Training Center Mission Equipment Package.

Executive Summary

In April 2010, the Light Utility Helicopter (LUH) product office completed fielding of the first Outside Contiguous / Continental United States (OCONUS) aircraft with the successful fielding of five United States Army, Europe (USAREUR) aircraft to the Joint Multinational Readiness Center (JMRC) located at Hohenfels, Germany. This was soon followed by an additional five aircraft to JMRC and four Space and Missile Defense Command (SMDC) aircraft at Kwajalein Atoll.

In July 2010, incremental funding was received for Fiscal Year (FY) 2012-2016 to smooth production and complete acquisition of the LUH, Authorized Acquisition Objective (AAO) of 345 aircraft by FY 2015, with final fielding to occur in FY 2016. As part of this action per Department of the Army (DA) direction, future modifications to the UH-72A will include: Hontek blade coating for all extreme environment and erosive environment aircraft; Wide Area Augmentation System (WAAS) for all Homeland Security (HLS) and extreme environment aircraft; and Medical Mission Kit Enhancements for all Medical Evacuation (MEDEVAC) aircraft.

In October 2010, the three-phase production duplication was completed on schedule at the Columbus, Mississippi production line, with aircraft 72135 ending the Full Assembly Line (FAL) phase of production. All aircraft are now fully assembled in the Columbus, Mississippi facility in the Production Line II phase.

Original funding of $3.9 Million (M) in FY 2009 and $1.6M in FY 2010 that was provided under Item Control Number (ICN) AA0492 for an Integrated Vehicle Health Management System (IVHMS) demonstration has been reprogrammed for other efforts. In FY 2010 funding in the amount of $1.9M was provided under ICN A05001 to begin this demonstration. This money was utilized to complete requirements development for the system and establish program baselines.

During FY 2010 the LUH product office successfully completed integration of the first Security and Support (S&S) Mission Equipment Package (MEP) prototype system. The S&S MEP successfully passed performance demonstrations and user evaluations. The system is currently undergoing Federal Aviation Administration (FAA) certification prior to initiation of retrofits. European Aeronautic Defense and Space Company North America (EADS-NA) has been put on contract for 15 retrofit installations beginning in the Third Quarter FY 2011 and 20 production deliveries beginning in the Second Quarter FY 2012.

The Combat Training Center (CTC) MEP successfully completed aircraft testing and certification in FY 2010. Initial retrofits were completed to support CTC system integration and safety testing at JMRC in the First Quarter FY 2011. Initial retrofits are currently underway to support integration and safety testing at Joint Readiness Training Center (JRTC) in the Third Quarter FY 2011. Initial retrofits for National Training Center (NTC) are planned for Third Quarter FY 2011.

The Program Year (PY) 6 contract option was awarded November 8, 2010 for 20 aircraft under Continuing Resolution Authority (CRA) guidance. A contract modification for 12 additional aircraft was awarded on December 22, 2010 also under CRA guidance, bringing total aircraft procured under CRA to 32.

One hundred and forty-six UH-72A aircraft have been delivered as of December 31, 2010. Twenty-nine aircraft have been equipped with the Engine Inlet Barrier Filter (EIBF). Fifty-six aircraft have the MEDEVAC Mission Kit. Sixty-four aircraft have been outfitted with Environmental Control Units (ECU). Fifty-seven aircraft have been equipped with secure communications. Twelve aircraft have been equipped with Very Important Personnel (VIP) packages.

In early January 2011, the DA directed the LUH product office to allocate additional incremental funding toward the procurement of a Cockpit Voice Data Recorder (CVDR) for all aircraft.

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

Threshold Breaches

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

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

Schedule

Milestones	SAR Baseline Prod Est	Current APB Production Objective/Threshold		Current Estimate
Milestone 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

Acronyms And Abbreviations

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

Change Explanations

None

Memo

Performance

Characteristics	SAR Baseline Prod Est	Current APB Production Objective/Threshold		Demonstrated Performance	Current Estimate
Net Ready / Voice Interoperability (KPP)%	100% Secure Comm s	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 FAASTD	1994 FAASTD	1989 FAASTD	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 Source: Capability Development Document (CDD) is Version 9.0, dated September 30, 2005 Joint Requirements Oversight Council (JROC) Memo, JROCM 216-06 dated October 18, 2006, accepted the CDD in lieu of generating a separate Capabilities Production Document (CPD).

Acronyms And Abbreviations

Comms - Communications
FAA - Federal Aviation Administration
HOGE - Hover Out of Ground Effect
KPP - Key Performance Parameter
NATO - North Atlantic Treaty Organization
STD - Standard

Change Explanations

None

Memo

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 Selected Acquisition Report (SAR).

Track To Budget

General Memo

Research, Development, Test, and Evaluation (RDT&E) funds are accounted for in UH-60 Program Element (PE) 273744, and are sunk costs not tracked against this program.

Procurement funds are accounted for in the LUH Aircraft Procurement, Army (APA) line, Item Control Number (ICN) A05001, which is shared with modification costs. Modification costs should not be considered as part of the acquisition cost of the program.

RDT&E

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

Procurement

APPN 2031	BA 01		(Army)
	ICN A05001	Light Utility Helicopter	(Shared)

Cost and Funding

Cost Summary

Total Acquisition Cost and Quantity

	BY2006 $M			BY2006 $M	TY $M		
Appropriation	SAR Baseline Prod Est	Current APB Production Objective/Threshold		Current Estimate	SAR Baseline Prod Est	Current APB Production Objective	Current Estimate
RDT&E	3.2	3.2	4.2	3.2	3.1	3.1	3.1
Procurement	1635.1	1704.9	1875.4	1806.0	1879.9	1958.6	2003.4
Flyaway	1564.9	--	--	1703.4	1798.5	--	1887.7
Recurring	1546.0	--	--	1684.3	1777.5	--	1866.9
Non Recurring	18.9	--	--	19.1	21.0	--	20.8
Support	70.2	--	--	102.6	81.4	--	115.7
Other Support	70.2	--	--	102.6	81.4	--	115.7
Initial Spares	0.0	--	--	0.0	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	1809.2	1883.0	1961.7	2006.5

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

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	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1
Procurement	994.1	293.1	237.0	200.5	166.9	97.8	14.0	0.0	2003.4
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	997.2	293.1	237.0	200.5	166.9	97.8	14.0	0.0	2006.5
PB 2011 Total	998.5	293.1	264.1	255.8	134.5	0.0	57.6	0.0	2003.6
Delta	-1.3	0.0	-27.1	-55.3	32.4	97.8	-43.6	0.0	2.9

Quantity	Undistributed	Prior	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	To Complete	Total
Development	0	0	0	0	0	0	0	0	0	0
Production	0	182	50	39	34	26	14	0	0	345
PB 2012 Total	0	182	50	39	34	26	14	0	0	345
PB 2011 Total	0	182	50	44	44	20	0	5	0	345
Delta	0	0	0	-5	-10	6	14	-5	0	0

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
2004	--	--	--	--	--	--	3.1
Subtotal	**--**	**--**	**--**	**--**	**--**	**--**	**3.1**

Annual Funding BY$
2040 | RDT&E | Research, Development, Test, and Evaluation, Army

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2006 $M	Non End Item Recurring Flyaway BY 2006 $M	Non Recurring Flyaway BY 2006 $M	Total Flyaway BY 2006 $M	Total Support BY 2006 $M	Total Program BY 2006 $M
2004	--	--	--	--	--	--	3.2
Subtotal	**--**	**--**	**--**	**--**	**--**	**--**	**3.2**

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
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	12.5	301.2
2011	50	262.5	9.8	3.7	276.0	17.1	293.1
2012	39	206.5	10.1	3.1	219.7	17.3	237.0
2013	34	178.1	9.0	--	187.1	13.4	200.5
2014	26	144.9	9.0	--	153.9	13.0	166.9
2015	14	78.8	8.6	--	87.4	10.4	97.8
2016	--	--	8.0	--	8.0	6.0	14.0
Subtotal	**345**	**1772.1**	**94.8**	**20.8**	**1887.7**	**115.7**	**2003.4**

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

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2006 $M	Non End Item Recurring Flyaway BY 2006 $M	Non Recurring Flyaway BY 2006 $M	Total Flyaway BY 2006 $M	Total Support BY 2006 $M	Total Program BY 2006 $M
2005	--	--	2.0	--	2.0	--	2.0
2006	16	77.4	6.7	1.0	85.1	0.8	85.9
2007	26	117.2	7.0	3.0	127.2	8.2	135.4
2008	42	190.8	5.1	3.1	199.0	4.2	203.2
2009	44	201.5	8.3	2.9	212.7	11.1	223.8
2010	54	251.4	8.7	3.1	263.2	11.4	274.6
2011	50	235.6	8.8	3.3	247.7	15.3	263.0
2012	39	181.9	8.9	2.7	193.5	15.3	208.8
2013	34	154.3	7.8	--	162.1	11.6	173.7
2014	26	123.4	7.7	--	131.1	11.1	142.2
2015	14	66.0	7.2	--	73.2	8.7	81.9
2016	--	--	6.6	--	6.6	4.9	11.5
Subtotal	**345**	**1599.5**	**84.8**	**19.1**	**1703.4**	**102.6**	**1806.0**

Modification costs are not included in the reported LUH Program Acquisition Costs and are currently estimated at $308.5M(TY).

Low Rate Initial Production

	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 Cost

None

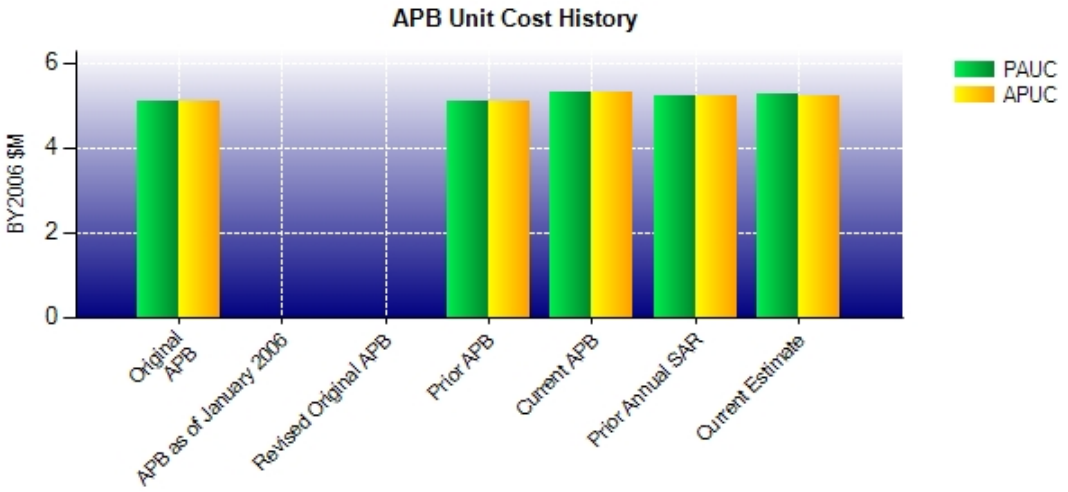
Unit Cost

Unit Cost Report

Unit Cost	BY2006 $M Current UCR Baseline (AUG 2007 APB)	BY2006 $M Current Estimate (DEC 2010 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	1708.1	1809.2	
Quantity	322	345	
Unit Cost	5.305	5.244	-1.15
Average Procurement Unit Cost (APUC)			
Cost	1704.9	1806.0	
Quantity	322	345	
Unit Cost	5.295	5.235	-1.13

Unit Cost	BY2006 $M Original UCR Baseline (JUN 2006 APB)	BY2006 $M Current Estimate (DEC 2010 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	1638.3	1809.2	
Quantity	322	345	
Unit Cost	5.088	5.244	+3.07
Average Procurement Unit Cost (APUC)			
Cost	1635.1	1806.0	
Quantity	322	345	
Unit Cost	5.078	5.235	+3.09

Unit Cost History



		BY2006 $M		TY $M	
	Date	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 2009	5.241	5.232	5.808	5.799
Current Estimate	DEC 2010	5.244	5.235	5.816	5.807

SAR Unit Cost History

Current SAR Baseline to Current Estimate (TY $M)

Initial PAUC Prod Est	Changes								PAUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
5.848	-0.146	0.014	-0.008	0.246	-0.240	0.000	0.102	-0.032	5.816

Current SAR Baseline to Current Estimate (TY $M)

Initial APUC Prod Est	Changes								APUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
5.838	-0.146	0.015	-0.008	0.246	-0.240	0.000	0.102	-0.031	5.807

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	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	2006.5
Total Quantity	N/A	N/A	322	345
Prog. Acq. Unit Cost (PAUC)	N/A	N/A	5.848	5.816

Cost Variance

Cost Variance Summary

Summary Then Year $M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Prod Est)	3.1	1879.9	--	1883.0
Previous Changes				
Economic	--	-50.2	--	-50.2
Quantity	--	+139.3	--	+139.3
Schedule	--	-6.6	--	-6.6
Engineering	--	+84.9	--	+84.9
Estimating	--	-80.7	--	-80.7
Other	--	--	--	--
Support	--	+33.9	--	+33.9
Subtotal	--	+120.6	--	+120.6
Current Changes				
Economic	--	-0.1	--	-0.1
Quantity	--	--	--	--
Schedule	--	+3.8	--	+3.8
Engineering	--	--	--	--
Estimating	--	-2.0	--	-2.0
Other	--	--	--	--
Support	--	+1.2	--	+1.2
Subtotal	--	+2.9	--	+2.9
Total Changes	--	+123.5	--	+123.5
CE - Cost Variance	3.1	2003.4	--	2006.5
CE - Cost & Funding	3.1	2003.4	--	2006.5

Summary Base Year 2006 $M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Prod Est)	3.2	1635.1	--	1638.3
Previous Changes				
Economic	--	--	--	--
Quantity	--	+110.5	--	+110.5
Schedule	--	+30.0	--	+30.0
Engineering	--	+74.4	--	+74.4
Estimating	--	-76.4	--	-76.4
Other	--	--	--	--
Support	--	+31.5	--	+31.5
Subtotal	--	+170.0	--	+170.0
Current Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	+1.5	--	+1.5
Engineering	--	--	--	--
Estimating	--	-1.5	--	-1.5
Other	--	--	--	--
Support	--	+0.9	--	+0.9
Subtotal	--	+0.9	--	+0.9
Total Changes	--	+170.9	--	+170.9
CE - Cost Variance	3.2	1806.0	--	1809.2
CE - Cost & Funding	3.2	1806.0	--	1809.2

Previous Estimate: December 2009

Procurement	$M	
Current Change Explanations	**Base Year**	**Then Year**
Revised escalation indices. (Economic)	N/A	-0.1
Total Schedule Variance (Subtotal)	+1.5	+3.8
Stretch-out of procurement buy profile in FY 2012 through FY 2016. (Schedule)	(0.0)	(+2.1)
Schedule variance due to smoothing of production quantities and program quantity breakpoints. Production quantities decreased in FY 2012, FY 2013 and FY 2016, while increasing in FY 2014 and FY 2015. (Schedule)	(+1.5)	(+1.7)
Adjustment for current and prior escalation. (Estimating)	+0.5	+0.4
Decrease in estimate due to ramp down of Government support in outyears to transition into sustainment program phase. (Estimating)	-2.0	-2.4
Adjustment for current and prior escalation. (Support)	0.0	+0.1
Increase in Other Support due to fielding schedule changes. Type of aircraft fielded in each year determines total cost to field. (Support)	+0.9	+1.1
Procurement Subtotal	+0.9	+2.9

Contracts

Appropriation: Procurement

Contract Name	**LUH Production & Service**
Contractor	EADS-NA Defense Co.
Contractor Location	Arlington, VA 22209-3122
Contract Number, Type	W58RGZ-06-C-0194, FFP
Award Date	June 30, 2006
Definitization Date	June 30, 2006

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	1301.3	N/A	214	1301.3	1301.3

Cost And Schedule Variance Explanations

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

Contract Comments

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 $51.1 Million (M) to $1301.3M primarily due to the purchase of an additional 206 aircraft bringing the total number of aircraft purchased to date to 214. 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. Future modifications include: Hontek blade coating for extreme environment and erosive environment aircraft; Wide Area Augmentation System (WAAS) for all Homeland Security (HLS) and extreme environment aircraft; Medical Mission Kit Enhancements for all MEDEVAC aircraft; Cockpit Voice Data Recorder (CVDR) for all aircraft.

Program Year (PY) 6 contract option was awarded November 8, 2010 for 20 aircraft under Continuing Resolution Authority (CRA) guidance. A contract modification for 12 additional aircraft was awarded on December 22, 2010 under CRA guidance, bringing total aircraft procured in FY 2011 to 32.

The estimated price at completion contract value reflects the value of the contract options exercised as of December 31, 2010, and includes modification procurement costs.

Deliveries and Expenditures

Deliveries To Date	Plan To Date	Actual To Date	Total Quantity	Percent Delivered
Development	0	0	0	--
Production	144	146	345	42.32%
Total Program Quantities Delivered	144	146	345	42.32%

Expenditures and Appropriations (TY $M)			
Total Acquisition Cost	2006.5	Years Appropriated	8
Expenditures To Date	1237.0	Percent Years Appropriated	61.54%
Percent Expended	61.65%	Appropriated to Date	1290.3
Total Funding Years	13	Percent Appropriated	64.31%

Deliveries are through December 31, 2010. Expenditures include total program procurement obligations through December 31, 2010, in TY$M, and do not include any Research, Development, Test, and Evaluation (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 life cycle 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 Operations 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.

Maintenance 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.

Indirect Support includes all costs associated with indirect items in support of operations and maintenance and include Training and Other Military Pay.

The Other Cost Category includes the following average annual cost per aircraft (in thousands): Contractor Logistics Support $430.77; Installation Support $4.82; Overhaul and Rework $26.33.

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 life cycle 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 Black Hawk 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.

Costs BY2006 $K		
Cost Element	**LUH Average Annual Cost Per Aircraft**	**Black Hawk UH60L Average Cost Per 250 Flying Hours**
Unit-Level Manpower	0.00	0.00
Unit Operations	87.06	72.50
Maintenance	0.00	571.25
Sustaining Support	10.39	--
Continuing System Improvements	0.00	--
Indirect Support	58.82	287.50
Other	461.83	--
Total Unitized Cost (Base Year 2006 $)	618.10	931.25

Total O&S Costs $M	LUH	Black Hawk UH60L
Base Year	4264.9	0.0
Then Year	5823.2	0.0