



Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-437



AH-64E Apache New Build (AH-64E New Build)

As of FY 2016 President's Budget

Defense Acquisition Management
Information Retrieval
(DAMIR)

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Common Acronyms and Abbreviations for MDAP Programs

Acq O&M - Acquisition-Related Operations and Maintenance
ACAT - Acquisition Category
ADM - Acquisition Decision Memorandum
APB - Acquisition Program Baseline
APPN - Appropriation
APUC - Average Procurement Unit Cost
\$B - Billions of Dollars
BA - Budget Authority/Budget Activity
Blk - Block
BY - Base Year
CAPE - Cost Assessment and Program Evaluation
CARD - Cost Analysis Requirements Description
CDD - Capability Development Document
CLIN - Contract Line Item Number
CPD - Capability Production Document
CY - Calendar Year
DAB - Defense Acquisition Board
DAE - Defense Acquisition Executive
DAMIR - Defense Acquisition Management Information Retrieval
DoD - Department of Defense
DSN - Defense Switched Network
EMD - Engineering and Manufacturing Development
EVM - Earned Value Management
FOC - Full Operational Capability
FMS - Foreign Military Sales
FRP - Full Rate Production
FY - Fiscal Year
FYDP - Future Years Defense Program
ICE - Independent Cost Estimate
IOC - Initial Operational Capability
Inc - Increment
JROC - Joint Requirements Oversight Council
\$K - Thousands of Dollars
KPP - Key Performance Parameter
LRIP - Low Rate Initial Production
\$M - Millions of Dollars
MDA - Milestone Decision Authority
MDAP - Major Defense Acquisition Program
MILCON - Military Construction
N/A - Not Applicable
O&M - Operations and Maintenance
ORD - Operational Requirements Document
OSD - Office of the Secretary of Defense
O&S - Operating and Support
PAUC - Program Acquisition Unit Cost

PB - President's Budget
PE - Program Element
PEO - Program Executive Officer
PM - Program Manager
POE - Program Office Estimate
RDT&E - Research, Development, Test, and Evaluation
SAR - Selected Acquisition Report
SCP - Service Cost Position
TBD - To Be Determined
TY - Then Year
UCR - Unit Cost Reporting
U.S. - United States
USD(AT&L) - Under Secretary of Defense (Acquisition, Technology and Logistics)

Program Information

Program Name

AH-64E Apache New Build (AH-64E New Build)

DoD Component

Army

Responsible Office

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Date

Assigned: August 9, 2012

References

SAR Baseline (Production Estimate)

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated December 16, 2010

Approved APB

Component Acquisition Executive (CAE) Approved Acquisition Program Baseline (APB) dated July 2, 2013

Mission and Description

The AH-64E Apache New Build (AH-64E New Build), hereinafter referred to as AH-64E, is the heavy attack helicopter of the current and future force. It is a twin engine, four-bladed, tandem seat, attack helicopter with 30-millimeter ammunition, 2.75-inch rockets, laser and Radio Frequency Hellfire missiles. The AH-64E is the Army's network-centric, multi-role weapon system within the Future Modular Force (FMF). It provides the capability to simultaneously conduct (or quickly transition between) close combat, mobile strike, armed reconnaissance, manned-unmanned teaming, security and vertical maneuver missions across the full spectrum of warfare from Stability and Support Operations to Major Combat Operations, when required, in day, night, obscured battlefield and adverse weather conditions. The AH-64E enables the Joint Air/Ground Maneuver Team to dominate the battle space by providing air-ground synergy through real-time Intelligence, Surveillance, and Reconnaissance (ISR) information and responsive precision fires. The AH-64E is linked to Joint and Combined Arms Air/Ground Maneuver Teams via Enhanced Digital Communications, Unmanned Aircraft Systems Data Links and Joint networking waveforms.

The AH-64E is an Apache Attack Helicopter modified as required to effectively and efficiently integrate the Longbow Apache well into the 21st century, by providing improvements to make it relevant in FMF operations. It provides a significantly enhanced warfighting capability over the AH-64A and AH-64D. It is capable of being employed day or night in adverse weather and obscuration, and can effectively engage and destroy advanced threat weapon systems on the air-land battlefield. Tactically, the AH-64E provides significant war fighting advantages over the original AH-64D and multiplies the combat effectiveness of the entire fleet. It will be fully capable of employing the Longbow Fire Control Radar mission kit, the Modernized Target Acquisition Designation System/Modernized Pilot Night Vision System, the Longbow Hellfire missiles, and future improved munitions in addition to the normal complement of AH-64D munitions. Additionally, the AH-64E includes upgraded engines, debuts evolutionary transmission technology, and incorporates significant improvements to its main rotor system, which increases power and provides substantial performance gains.

The AH-64E is fully network-centric capable with current digitized forces and FMF-equipped forces. This enables interoperability with current and future Tactical Operations Center and Army Battle Command System forces. In addition, this reduces the logistics footprint, enhances its deployability, reduces O&S costs, improves AH-64D model flight performance and provides a means to effectively utilize already funded technology insertions. The AH-64E has a fully compatible and rapidly re-configurable open system architecture mission processor design, enabling rapid integration of future communication systems, and minimizing obsolescence.

The AH-64E operates within the future force system-of-systems environment where maximum combat power is delivered to units only in coherent packages of systems with synergistic interdependence. The FMF concept drives the demand for network-centric interdependence and Joint integration across the force to new levels. The AH-64E meets these challenges by providing and integrating Command and Control, ISR, and communications connectivity for attack/reconnaissance aviation within Brigade Combat Teams, Divisions, and Corps.

Executive Summary

On June 30, 2014, the Boeing Company FRP contract for Lot 3 and 4 was definitized and awarded. This contract supports production of 10 AH-64E Apache New Build helicopters. This production activity supported completion of fielding the second and third units equipped, as well as augmentation of the training fleet.

AH-64E Capability Version 4 Follow-on Operational Test & Evaluation was successfully concluded on time on August 14, 2014 at Eglin Air Force Base, Florida. This capability is scheduled to be in production Lot 5 in FY 2015.

Apache PM initiated the required processes and is seeking necessary approvals to enter a multi-year contract to support production from 2017 through 2021. The Army Acquisition Executive signed the Justification and Approval on December 23, 2014.

The First Unit Equipped, 1-229 Attack Reconnaissance Battalion, successfully completed the first operational combat deployment of the AH-64E in November 2014.

As of December 31, 2014, Apache program delivered ten AH-64E New Build Attack Helicopters of the 56 Army Acquisition Objective.

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

Threshold Breaches

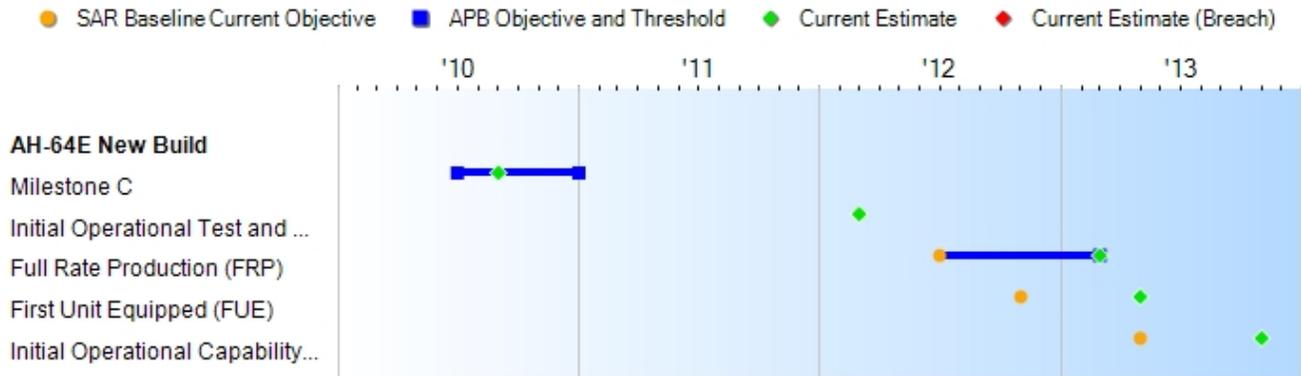
APB Breaches

- 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	Jul 2010	Jul 2010	Jan 2011	Sep 2010
Initial Operational Test and Evaluation (IOT&E)	Mar 2012	N/A	N/A	Mar 2012
Full Rate Production (FRP)	Jul 2012	Jul 2012	Mar 2013	Mar 2013
First Unit Equipped (FUE)	Nov 2012	N/A	N/A	May 2013
Initial Operational Capability (IOC)	May 2013	N/A	N/A	Nov 2013

Change Explanations

None

Acronyms and Abbreviations

FUE - First Unit Equipped
 IOT&E - Initial Operational Test and Evaluation

Performance

Performance Characteristics				
SAR Baseline Production Estimate	Current APB Production Objective/Threshold		Demonstrated Performance	Current Estimate
Net Ready				
Fully support execution of all operational activities.	Fully support execution of all operational activities.	Fully support execution of joint critical operational activities	Met Threshold	Fully support execution of all operational activities.
Performance				
6000' PA, 95F OGE Hover (lbs/payload)				
4,100	4,100	3,400	Met Threshold	3,400
Mission Reliability				
MTBF (M) hrs				
Lot 1				
22	22	15.3	Met Objective	15.3
Lot 4				
22	22	17	Met Objective	17
MR for 3.5 hr. Flight (%)				
85	85	80	Met Objective	80
Survivability				
Safe operation (minutes)				
30	30	30	Met Objective	30
Survive Band IV MANPADS IR Missile Engagement				
IAW JROCM 086-10	IAW JROCM 086-10	IAW JROCM 086-10	Met Objective	IAW JROCM 086-10
Force Protection				
Crewstation armor Survivability (mm)				
IAW JROCM 086-10	IAW JROCM 086-10	IAW JROCM 086-10	Met Objective	IAW JROCM 086-10
Crewstation armor barrier survivability				
IAW JROCM 086-10	IAW JROCM 086-10	IAW JROCM 086-10	Met Objective	IAW JROCM 086-10

Requirements Reference

Capability Production Document (CPD) dated June 1, 2010

Change Explanations

None

Notes

Net Ready KPP compliance is achieved by meeting the information exchange capabilities required by the Integrated Architectures Operational View -1 and is demonstrated by achieving Joint Interoperability Certification, Army Interoperability Certification, and DoD Information Assurance and Accreditation Process accreditation.

Demonstrated Performance based upon Director, Operational Test and Evaluation assessment of AH-64E Initial Operational Test and Evaluation.

Acronyms and Abbreviations

% - Percent

' - feet

F - Fahrenheit

hr - hour

hrs - hours

IAW - In Accordance With

IR - Infrared

JROCM - Joint Requirements Oversight Council Memorandum

lbs - pounds

MANPADS - Man Portable Air Defense Systems

mm - millimeter

MR - Mission Reliability

MTBF (M) - Mean Time Between Failure (Mission)

OGE - Out of Ground Effect

PA - Pressure Altitude

Track to Budget

Procurement

Appn	BA	PE
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Army 2031 01 0210100A

Line Item	Name
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A05133 Apache Longbow Block IIIB New Build

Cost and Funding

Cost Summary

Total Acquisition Cost							
Appropriation	BY 2010 \$M			BY 2010 \$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	0.0	0.0	--	0.0	0.0	0.0	0.0
Flyaway	--	--	--	0.0	--	--	0.0
Recurring	--	--	--	0.0	--	--	0.0
Non Recurring	--	--	--	0.0	--	--	0.0
Support	--	--	--	0.0	--	--	0.0
Procurement	2307.0	2003.3	2203.6	2104.2	2510.4	2562.6	2619.0
Flyaway	--	--	--	1876.4	--	--	2327.2
Recurring	--	--	--	1835.7	--	--	2277.2
Non Recurring	--	--	--	40.7	--	--	50.0
Support	--	--	--	227.8	--	--	291.8
Other Support	--	--	--	170.6	--	--	219.4
Initial Spares	--	--	--	57.2	--	--	72.4
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	2307.0	2003.3	N/A	2104.2	2510.4	2562.6	2619.0

Confidence Level

Confidence Level of cost estimate for current APB: 50%

This estimate, like all previous Cost Analysis Improvement Group (CAIG) and Cost Assessment and Program Evaluation (CAPE) estimates, is built upon a product-oriented work breakdown structure; is based on historical actual cost information to the maximum extent possible; and, most importantly, is based on conservative assumptions that are consistent with actual demonstrated contractor and government performance for a series of acquisition programs in which the Department has been successful.

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

Total Quantity			
Quantity	SAR Baseline Production Estimate	Current APB Production	Current Estimate
RDT&E	0	0	0
Procurement	56	56	63
Total	56	56	63

Cost and Funding

Funding Summary

Appropriation Summary									
FY 2016 President's Budget / December 2014 SAR (TY\$ M)									
Appropriation	Prior	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
RDT&E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Procurement	538.8	0.0	0.0	0.0	0.0	0.0	432.7	1647.5	2619.0
MILCON	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PB 2016 Total	538.8	0.0	0.0	0.0	0.0	0.0	432.7	1647.5	2619.0
PB 2015 Total	538.8	0.0	0.0	0.0	0.0	75.0	356.0	1669.0	2638.8
Delta	0.0	0.0	0.0	0.0	0.0	-75.0	76.7	-21.5	-19.8

Quantity Summary										
FY 2016 President's Budget / December 2014 SAR (TY\$ M)										
Quantity	Undistributed	Prior	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Development	0	0	0	0	0	0	0	0	0	0
Production	0	17	0	0	0	0	0	7	39	63
PB 2016 Total	0	17	0	0	0	0	0	7	39	63
PB 2015 Total	0	16	0	0	0	0	0	7	40	63
Delta	0	1	0	0	0	0	0	0	-1	0

Cost and Funding

Annual Funding By Appropriation

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	
2012	--	71.6	--	--	71.6	--	71.6	
2013	13	294.6	--	--	294.6	30.6	325.2	
2014	4	142.0	--	--	142.0	--	142.0	
2015	--	--	--	--	--	--	--	
2016	--	--	--	--	--	--	--	
2017	--	--	--	--	--	--	--	
2018	--	--	--	--	--	--	--	
2019	--	--	--	--	--	--	--	
2020	7	343.6	--	50.0	393.6	39.1	432.7	
2021	7	312.7	--	--	312.7	37.6	350.3	
2022	7	258.8	--	--	258.8	31.3	290.1	
2023	7	259.8	--	--	259.8	31.3	291.1	
2024	7	266.4	--	--	266.4	32.1	298.5	
2025	7	241.4	--	--	241.4	43.4	284.8	
2026	4	86.3	--	--	86.3	46.4	132.7	
Subtotal	63	2277.2	--	50.0	2327.2	291.8	2619.0	

Annual Funding 2031 Procurement Aircraft Procurement, Army								
Fiscal Year	Quantity	BY 2010 \$M						
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program	
2012	--	67.3	--	--	67.3	--	67.3	
2013	13	271.5	--	--	271.5	28.2	299.7	
2014	4	128.6	--	--	128.6	--	128.6	
2015	--	--	--	--	--	--	--	
2016	--	--	--	--	--	--	--	
2017	--	--	--	--	--	--	--	
2018	--	--	--	--	--	--	--	
2019	--	--	--	--	--	--	--	
2020	7	279.0	--	40.7	319.7	31.7	351.4	
2021	7	248.9	--	--	248.9	30.0	278.9	
2022	7	202.0	--	--	202.0	24.4	226.4	
2023	7	198.8	--	--	198.8	24.0	222.8	
2024	7	199.9	--	--	199.9	24.0	223.9	
2025	7	177.5	--	--	177.5	32.0	209.5	
2026	4	62.2	--	--	62.2	33.5	95.7	
Subtotal	63	1835.7	--	40.7	1876.4	227.8	2104.2	

Cost Quantity Information		
2031 Procurement Aircraft Procurement, Army		
Fiscal Year	Quantity	End Item Recurring Flyaway (Aligned With Quantity) BY 2010 \$M
2012	--	--
2013	13	338.5
2014	4	128.4
2015	--	--
2016	--	--
2017	--	--
2018	--	--
2019	--	--
2020	7	226.8
2021	7	255.9
2022	7	199.9
2023	7	196.1
2024	7	195.7
2025	7	196.5
2026	4	97.9
Subtotal	63	1835.7

Low Rate Initial Production

The LRIP contract only applies to the AH-64E Remanufacture program. The AH-64E New Build program began in March 2013.

Foreign Military Sales

Country	Date of Sale	Quantity	Total Cost \$M	Description
Qatar	8/10/2014	24	2194.0	Fully Implemented
Indonesia	8/26/2013	8	632.0	Fully Implemented.
Korea	5/2/2013	36	1610.0	Fully Implemented.
Saudi Arabia	11/13/2011	12	1402.0	Fully Implemented.
Saudi Arabia	10/17/2011	24	2731.0	Fully Implemented.
Saudi Arabia	12/30/2009	12	510.0	Fully Implemented.
Taiwan	12/22/2008	30	1912.0	Fully Implemented

Notes

Nuclear Costs

None

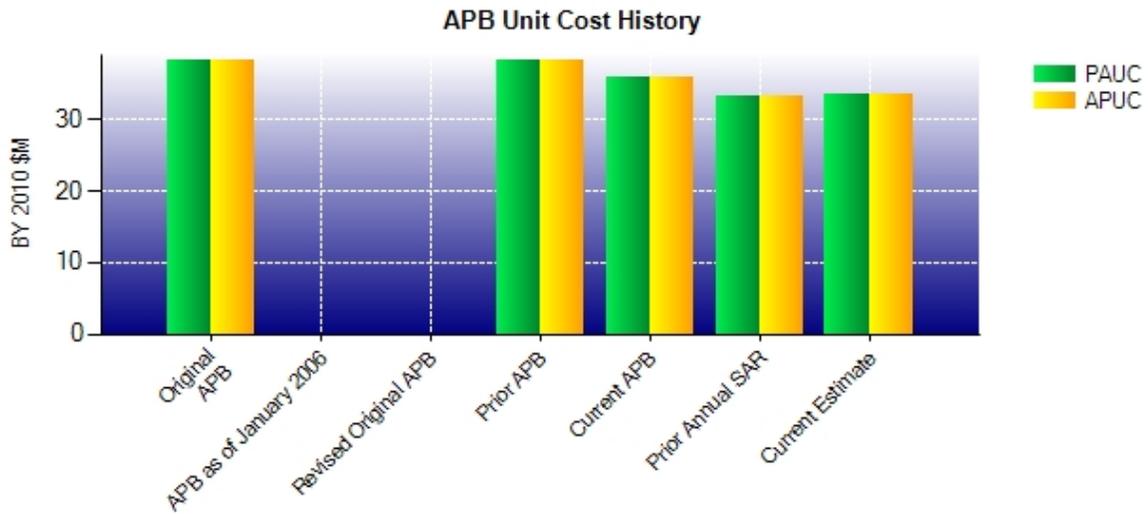
Unit Cost

Unit Cost Report

Item	BY 2010 \$M	BY 2010 \$M	% Change
	Current UCR Baseline (Jul 2013 APB)	Current Estimate (Dec 2014 SAR)	
Program Acquisition Unit Cost			
Cost	2003.3	2104.2	
Quantity	56	63	
Item	35.773	33.400	-6.63
Average Procurement Unit Cost			
Cost	2003.3	2104.2	
Quantity	56	63	
Unit Cost	35.773	33.400	-6.63

Item	BY 2010 \$M	BY 2010 \$M	% Change
	Original UCR Baseline (Dec 2010 APB)	Current Estimate (Dec 2014 SAR)	
Program Acquisition Unit Cost			
Cost	2134.6	2104.2	
Quantity	56	63	
Unit Cost	38.118	33.400	-12.38
Average Procurement Unit Cost			
Cost	2134.6	2104.2	
Quantity	56	63	
Unit Cost	38.118	33.400	-12.38

Unit Cost History



Item	Date	BY 2010 \$M		TY \$M	
		PAUC	APUC	PAUC	APUC
Original APB	Dec 2010	38.118	38.118	41.539	41.539
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	Dec 2010	38.118	38.118	41.539	41.539
Current APB	Jul 2013	35.773	35.773	45.761	45.761
Prior Annual SAR	Dec 2013	33.262	33.262	41.886	41.886
Current Estimate	Dec 2014	33.400	33.400	41.571	41.571

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	
44.829	0.417	1.871	4.565	0.000	-10.263	0.000	0.152	-3.258	41.571

Current SAR Baseline to Current Estimate (TY \$M)									
Initial APUC Production Estimate	Changes								APUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
44.829	0.417	1.871	4.565	0.000	-10.263	0.000	0.152	-3.258	41.571

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	Jul 2010	Sep 2010
IOC	N/A	N/A	May 2013	Nov 2013
Total Cost (TY \$M)	N/A	N/A	2510.4	2619.0
Total Quantity	N/A	N/A	56	63
PAUC	N/A	N/A	44.829	41.571

Cost Variance

Summary TY \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Production Estimate)	--	2510.4	--	2510.4
Previous Changes				
Economic	--	+57.1	--	+57.1
Quantity	--	+431.7	--	+431.7
Schedule	--	+296.2	--	+296.2
Engineering	--	--	--	--
Estimating	--	-660.5	--	-660.5
Other	--	--	--	--
Support	--	+3.9	--	+3.9
Subtotal	--	+128.4	--	+128.4
Current Changes				
Economic	--	-30.8	--	-30.8
Quantity	--	--	--	--
Schedule	--	-8.6	--	-8.6
Engineering	--	--	--	--
Estimating	--	+13.9	--	+13.9
Other	--	--	--	--
Support	--	+5.7	--	+5.7
Subtotal	--	-19.8	--	-19.8
Total Changes	--	+108.6	--	+108.6
CE - Cost Variance	--	2619.0	--	2619.0
CE - Cost & Funding	--	2619.0	--	2619.0

Summary BY 2010 \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Production Estimate)	--	2307.0	--	2307.0
Previous Changes				
Economic	--	--	--	--
Quantity	--	+313.5	--	+313.5
Schedule	--	+72.8	--	+72.8
Engineering	--	--	--	--
Estimating	--	-568.1	--	-568.1
Other	--	--	--	--
Support	--	-29.7	--	-29.7
Subtotal	--	-211.5	--	-211.5
Current Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	--	+4.2	--	+4.2
Other	--	--	--	--
Support	--	+4.5	--	+4.5
Subtotal	--	+8.7	--	+8.7
Total Changes	--	-202.8	--	-202.8
CE - Cost Variance	--	2104.2	--	2104.2
CE - Cost & Funding	--	2104.2	--	2104.2

Previous Estimate: December 2013

Procurement	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-30.8
Acceleration of procurement buy profile. (Schedule)	0.0	-8.6
Adjustment for current and prior escalation. (Estimating)	+1.4	+1.6
Revised estimate to reflect increase in FY 2020 funding to account for total cost of procured aircraft. (Estimating)	+5.2	+7.9
Revised estimate due to changes in estimating methodology. (Estimating)	+27.1	+36.4
Adjustment for Overseas Contingency Operations funded aircraft. (Estimating)	-29.5	-32.0
Adjustment for current and prior escalation. (Support)	+0.1	+0.1
Increase in Other Support due to changes in estimating methodology. (Support)	+2.7	+3.6
Increase in Initial Spares due to changes in estimating methodology. (Support)	+1.7	+2.0
Procurement Subtotal	+8.7	-19.8

Contracts

Contract Identification

Appropriation: Procurement
Contract Name: FRP
Contractor: The Boeing Company
Contractor Location: 5000 E McDowell Road
 Mesa, AZ 85215-9707
Contract Number: W58RGZ-12-C-0055
Contract Type: Fixed Price Incentive(Firm Target) (FPIF)
Award Date: June 29, 2012
Definitization Date: May 26, 2014

Contract Price								
Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)		
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager	
N/A	35.5	9	N/A	35.5	9	35.5	35.5	

Contract Variance			
Item	Cost Variance		Schedule Variance
Cumulative Variances To Date	0.0		0.0
Previous Cumulative Variances	--		--
Net Change	+0.0		+0.0

Cost and Schedule Variance Explanations

None

General Contract Variance Explanation

Cost and schedule variances are not reported for this contract, because an EVM waiver was granted by the Army Acquisition Executive on March 22, 2014.

Deliveries and Expenditures

Deliveries				
Delivered to Date	Planned to Date	Actual to Date	Total Quantity	Percent Delivered
Development	0	0	0	--
Production	8	8	63	12.70%
Total Program Quantity Delivered	8	8	63	12.70%

Expended and Appropriated (TY \$M)			
Total Acquisition Cost	2619.0	Years Appropriated	4
Expended to Date	207.2	Percent Years Appropriated	26.67%
Percent Expended	7.91%	Appropriated to Date	538.8
Total Funding Years	15	Percent Appropriated	20.57%

The above data is current as of January 31, 2015.

Operating and Support Cost

Cost Estimate Details

Date of Estimate:	January 16, 2015
Source of Estimate:	POE
Quantity to Sustain:	56
Unit of Measure:	Aircraft
Service Life per Unit:	20.00 Years
Fiscal Years in Service:	FY 2013 - FY 2046

The O&S cost estimate is based upon the OSD CAPE ICE dated August 15, 2012. The estimate was updated on September 17, 2013; February 24, 2014; and January 16, 2015 for fact-of-life changes.

The sustainment quantity of 56 aircraft differs from the acquisition quantity of 63 aircraft by seven aircraft. Those seven aircraft are replacements for battlefield losses.

Sustainment Strategy

The AH-64E Apache is maintained by a mix of soldier and civilian maintainers. The strategy assumes the fielding of 56 New Build aircraft, each flying 203.4 hours per year. The Mean Time Between Failure goal for the aircraft system is 22 hours at maturity once total program reaches 50,000 operational hours.

Antecedent Information

The antecedent to the AH-64E Apache is the AH-64D Longbow. The AH-64D Longbow will be in service until 2046. There are currently 633 AH-64D Longbow aircraft in operation. The AH-64D Longbow will have a total of 14,847 Fleet Years of Operational Tempo. Longbow antecedent data is derived from the Milestone C estimate, updated January 15, 2013.

14,847 Fleet Years * \$3,420K per operation hour = \$50,776.7M (BY 2010 \$M); the \$50,776.7M (BY 2010 \$M) translates to \$58,146.7M (TY \$M).

Cost Element	Annual O&S Costs BY2010 \$K	
	AH-64E New Build Average Annual Cost Per Aircraft	Longbow Apache (Antecedent) Average Annual Cost Per Aircraft
Unit-Level Manpower	1538.000	1538.000
Unit Operations	205.000	205.000
Maintenance	892.000	1148.000
Sustaining Support	355.000	355.000
Continuing System Improvements	73.000	73.000
Indirect Support	101.000	101.000
Other	0.000	0.000
Total	3164.000	3420.000

Item	Total O&S Cost \$M			
	AH-64E New Build			Longbow Apache (Antecedent)
	Current Production APB Objective/Threshold	Current Estimate	Current Estimate	
Base Year	3538.1	3891.9	3543.1	50776.7
Then Year	0.0	N/A	5735.0	N/A

The AH-64E New Build TY cost changed to reflect changes in the planned operational fleet schedule resulting from recent contract changes with the program's prime contractor as of January 15, 2015.

Equation to Translate Annual Cost to Total Cost

56 Helicopters * 20 Years Operational Life * \$3164.0M Unitized Cost = \$3543.7M (BY 2010 \$M)
 The small discrepancy in the reported cost and the equation is due to rounding.

O&S Cost Variance		
Category	BY 2010 \$M	Change Explanations
Prior SAR Total O&S Estimates - Dec 2013 SAR	3393.6	
Programmatic/Planning Factors	9.4	Program Schedule updated January 15, 2015.
Cost Estimating Methodology	-91.8	Depot Level Overhaul and Depot Level Spares re-estimated at lower cost.
Cost Data Update	0.0	
Labor Rate	238.6	Army Military-Civilian Costing System Manpower Cost Factors increased.
Energy Rate	-6.7	Reduced Cost of Petroleum, Oil, and Lubricants.
Technical Input	0.0	
Other	0.0	
Total Changes	149.5	
Current Estimate	3543.1	

Disposal Estimate Details

Date of Estimate: August 15, 2012
Source of Estimate: CAPE ICE
Disposal/Demilitarization Total Cost (BY 2010 \$M): Total costs for disposal of all Aircraft are 46.0

Total Disposal Costs for both the AH-64E Remanufacture and AH-64E New Build aircraft is \$46.03M (BY 2010 \$M) in accordance with the OSD CAPE ICE dated August 15, 2012.