Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-202

AB3A REMANUFACTURE

As of December 31, 2010

Defense Acquisition Management
Information Retrieval
(DAMIR)

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Program Information

Designation And Nomenclature (Popular Name)

Apache Block IIIA (AB3A)

DoD Component

Army

Responsible Office

Responsible Office

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Date Assigned August 14, 2008

References

SAR Baseline (Development Estimate)

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated August 22, 2006

Approved APB

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

Mission and Description

The Apache Block III (AB3) is the heavy attack helicopter of the current and future force. It is a twin engine, four bladed, tandem seat, attack helicopter with 30mm ammunition, 2.75" rockets, laser & Radio Frequency (RF) Hellfire missiles. AB3 is the Army's network-centric, multi-role weapon system within the Future Modular Force (FMF). It will provide the capability to simultaneously conduct (or quickly transition between) close combat, mobile strike, armed reconnaissance, security and vertical maneuver missions across the full spectrum of warfare from Stability And Support Operations (SASO) to Major Combat Operations (MCO) when required in day, night, obscured battlefield and adverse weather conditions. AB3 will enable the Joint Air/Ground Maneuver Team to dominate the battle space by providing air-ground synergy though real time Intelligence, Surveillance and Reconnaissance (ISR) information and responsive precision fires. AB3 will be linked to Joint and Combined Arms Air/Ground Maneuver Teams via Enhanced Digital Communications, Unmanned Aircraft Systems (UAS) Data Link and Joint Networking waveforms.

The AB3 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 obscurants, and can effectively engage and destroy advanced threat weapon systems on the air-land battlefield. Tactically, the AB3 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 (FCR) mission kit, the Modernized Target Acquisition Designation System/Modernized Pilot Night Vision System (M-TADS/M-PNVS), the Longbow Hellfire missiles, and future improved munitions such as Joint Air-to-Ground Missile (JAGM) in addition to the normal complement of AH-64D munitions.

The AB3 will be fully network-centric capable with current digitized forces and FMF equipped forces. This will enable interoperability with current and future Tactical Operations Center (TOC) and Army Battle Command System forces. In addition, it will reduce the logistics footprint and enhance its deployability, reduce operational and support costs, improve AH-64D model flight performance and provide a means to effectively utilize already funded technology insertions.

AB3 will operate 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 AB3 meets the challenge of providing and integrating Command and Control (C2); ISR; and communications connectivity for attack/reconnaissance aviation within brigade combat teams, divisions and corps.

Executive Summary

On June 28, 2006, the Defense Acquisition Executive (DAE) conducted a successful Milestone B (MS B) review of the Apache Block III (AB3) program. As a result, the DAE signed an Acquisition Decision Memorandum (ADM), dated July 10, 2006, approving MS B, authorizing the AB3 program to enter System Development and Demonstration (SDD) and designating it as an Acquisition Category (ACAT) ID program. On July 14, 2006, the Apache Project Manager awarded an SDD contract to the Boeing Company to begin the development effort for AB3. An SDD contract was awarded to the Longbow Limited (LBL) Company on September 29, 2006. This effort will specifically develop the subsystem improvements for the AB3 Fire Control Radar and enable the Level IV Unmanned Aircraft System (UAS) control. A follow-on ADM was approved on March 7, 2007 authorizing Low Rate Initial Production (LRIP) quantity of 59 aircraft and granting Army authority to procure long-lead items beginning in Fiscal Year (FY) 2009. The Acquisition Program Baseline (APB) milestones established for the Preliminary Design Review and the Critical Design Review were successfully completed on April 19, 2007 and January 30, 2008 respectively. The Limited User Test was successfully executed in November 2009.

The AB3 program was directed to increase total quantity procurement by 56 aircraft through the FY 2011 President's Budget (PB11) at a total additional cost of $2.5 Billion (B). The baseline program was a remanufacture production. These additional aircraft procurements will be New Build aircraft at a unit cost significantly higher than the remanufacture unit cost. The cost for a remanufacture aircraft is only 30 percent of the cost of a New Build aircraft. The addition of the New Build aircraft along with minor fact of life changes to the program since the beginning of Research, Development, Test, and Evaluation (RDTE) caused a Nunn-McCurdy unit cost breach to the Average Procurement Unit Cost (a Base Year 2006 change of +31.2 percent), which was reflected in the December 2009 SAR. The DAE supported a rapid Nunn-McCurdy process which was completed June 1, 2010 with an ADM certifying the program to move forward to Milestone C (MS C) and separating the baseline program into two Major Defense Acquisition Programs (MDAP) for cost accounting purposes (AB3A Reman and AB3B New Build). As part of the Nunn McCurdy certification and MS C process, the Office of the Secretary of Defense (OSD) Cost Assessment and Program Evaluation (CAPE) produced an Independent Cost Estimate (ICE) for both the AB3A and AB3B programs. While the ICE for the AB3B was slightly less than the New Build portion of the December 2009 SAR, the ICE for the AB3A was significantly higher than the remanufacture program as estimated in the Program Office Estimate (POE). The major differences between the ICE and POE for the AB3A remanufacture program are as follows: the ICE assumes more manhours will be required for completion of the Software development effort and level loads those manhours resulting in an additional year of RDTE; the ICE assumes significantly more manhours in the remanufacture process as well as higher material costs. A successful MS C Defense Acquisition Board (DAB) was completed on September 27, 2010. The resultant AB3A ADM directed the Army to fund the AB3A program to the ICE. Actual program funding was not increased in the Future Years Defense Program (FYDP). The ICE “bought to the budget” in the FYDP with resultant zero sums between the RDTE and Army Procurement appropriations as well as reduced quantities. The AB3 DAB allowed the move into LRIP and advance procurement actions for Full Rate Production (FRP). An LRIP contract was awarded on October 22, 2010 and the first AB3A aircraft for the remanufacture process has been inducted. The first AB3A aircraft will be delivered in October 2011.

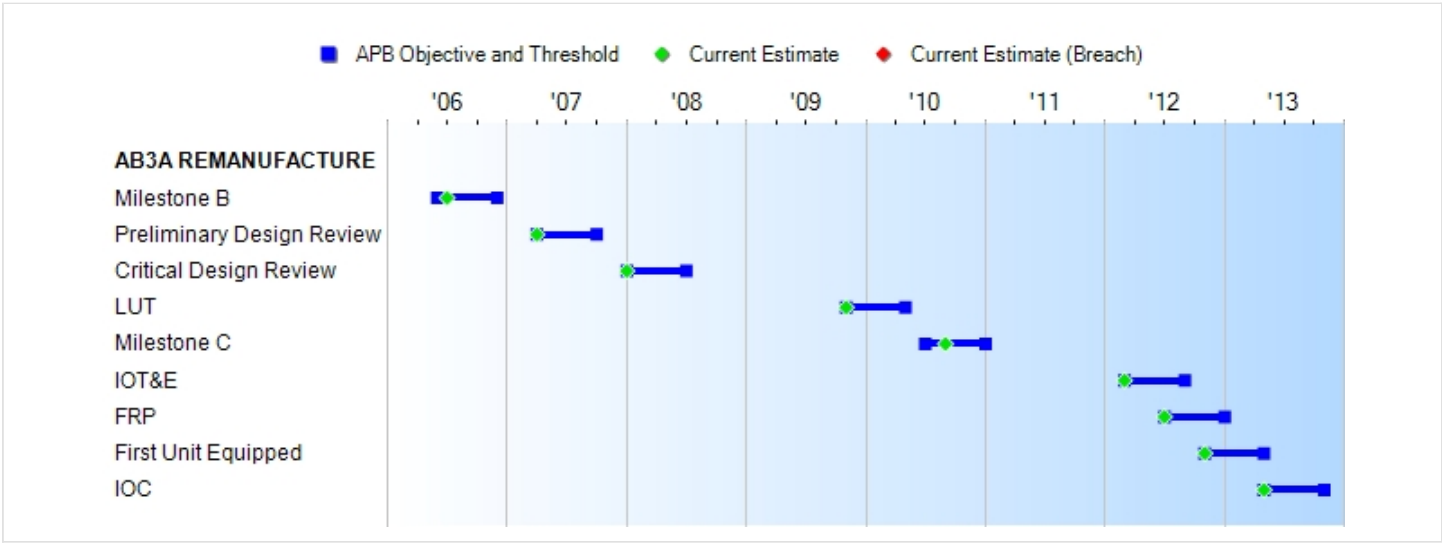
There are no significant software related issues with this program.

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 Dev Est	Current APB Production Objective/Threshold		Current Estimate	
Milestone B	JUN 2006	JUN 2006	DEC 2006	JUL 2006	
Preliminary Design Review	APR 2007	APR 2007	OCT 2007	APR 2007	
Critical Design Review	JAN 2008	JAN 2008	JUL 2008	JAN 2008	
LUT	NOV 2009	NOV 2009	MAY 2010	NOV 2009	
Milestone C	APR 2010	JUL 2010	JAN 2011	SEP 2010	(Ch-1)
IOT&E	OCT 2011	MAR 2012	SEP 2012	MAR 2012	
FRP	APR 2012	JUL 2012	JAN 2013	JUL 2012	
First Unit Equipped	JUL 2012	NOV 2012	MAY 2013	NOV 2012	
IOC	JAN 2013	MAY 2013	NOV 2013	MAY 2013	

Acronyms And Abbreviations

FRP - Full Rate Production
IOC - Initial Operating Capability
IOT&E - Initial Operational Test and Evaluation
LUT - Limited User Test

Change Explanations

(Ch-1) The Program Milestone C (MS C) decision was delayed from April 2010 to September 2010 primarily due to the processes associated with the Nunn-McCurdy decision requirements. A successful MS C Defense Acquisition Board was achieved on September 27, 2010, which was within the required Acquisition Program Baseline (APB) Threshold date of October 2010.

Performance

Characteristics	SAR Baseline Dev Est	Current APB Production Objective/Threshold		Demonstrated Performance	Current Estimate
Net Ready	Support execution of all critical operational activities	Fully support execution of all operational activities.	Fully support execution of joint critical operational activities.	TBD	Support execution of all critical operational activities
Performance					
6000' PA, 95 F OGE Hover (lbs/payload)	4,100	4,100	3,400	TBD	3408
Mission Reliability					
MTBF(M) hrs.					
Lot 1	22	22	15.3	TBD	22
Lot 4	22	22	17	TBD	22
MR for 3.5 hr. flight (%)	85	85	80	TBD	85
Survivability					
Safe operation (minutes)	30	30	30	TBD	30
Survive Band IV MANPADS IR Missile Engagement	IAW JROCM 132-06	IAW JROCM 086-10	IAW JROCM 086-10	TBD	IAW JROCM 132-06
Force Protection					
Crewstation armor survivability (mm)	12.7	IAW JROCM 086-10	IAW JROCM 086-10	TBD	12.7
Crewstation armor barrier survivability (mm)	23	IAW JROCM 086-10	IAW JROCM 086-10	TBD	23

Requirements Source:
Capability Production Document (CPD) approved by Joint Requirements Oversight Council Memorandum (JROCM), June 1, 2010.

Acronyms And Abbreviations

% - Percent
F - Fahrenheit
hrs - hours
IAW - In Accordance With
IR - Infrared
JROCM - Joint Requirements Oversight Council Memorandum
lbs - Pounds

MANPADS - Man Portable Air Defense System
mm - Millimeters
MR - Mission Reliability
MTBF(M) - Mean Time Between Failure (Maintenance)
OGE - Out of Ground Effect
PA - Pressure Altitude
TBD - To Be Determined

Change Explanations

None

Track To Budget

RDT&E				
APPN 2040	BA 07	PE 0203744A	(Army)	
	Project D17	Apache Block III		

Procurement				
APPN 2031	BA 01	PE 0210100A	(Army)	
	ICN A05111	Apache Longbow Block III A Reman		
APPN 2031	BA 02	PE 0210102A	(Army)	
	ICN AA6606	AH-64 Mods	(Shared)	(Sunk)

This line is shared because in FY 2009, before AB3 was a separate program from AH-64 Mods, there was AB3 advanced procurement that has to be captured in the AB3 Selected Acquisition Report.

Cost and Funding

Cost Summary

Total Acquisition Cost and Quantity

	BY2010 $M			BY2010 $M	TY $M		
Appropriation	SAR Baseline Dev Est	Current APB Production Objective/Threshold		Current Estimate	SAR Baseline Dev Est	Current APB Production Objective	Current Estimate
RDT&E	1127.1	1611.8	1773.0	1596.8	1139.2	1664.7	1649.0
Procurement	5937.3	8856.9	9742.6	8855.7	6954.7	10231.9	10244.1
Flyaway	5496.1	--	--	7451.2	6437.7	--	8634.9
Recurring	5442.0	--	--	7196.8	6379.0	--	8368.2
Non Recurring	54.1	--	--	254.4	58.7	--	266.7
Support	441.2	--	--	1404.5	517.0	--	1609.2
Other Support	287.4	--	--	1237.3	335.5	--	1417.8
Initial Spares	153.8	--	--	167.2	181.5	--	191.4
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	7064.4	10468.7	N/A	10452.5	8093.9	11896.6	11893.1

The Total Acquisition Cost and Quantity estimate is from the Milestone C Office of the Secretary of Defense (OSD) Cost Assessment and Program Evaluation (CAPE) Independent Cost Estimate (ICE). As is the case with all point estimates performed by the CAPE, the OSD ICE is not consistent with the 80 percent confidence level specified in the Weapon Systems Acquisition Reform Act (WSARA). The CAPE estimate is built upon a product-oriented work breakdown structure, based on historical actual cost to the maximum extent possible, and most importantly, based on assumptions that are consistent with demonstrated contractor and government performance for a series of previous acquisition programs.

Quantity	SAR Baseline Dev Est	Current APB Production	Current Estimate
RDT&E	5	5	5
Procurement	597	634	634
Total	602	639	639

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	804.5	93.3	92.8	114.4	136.2	158.1	136.6	113.1	1649.0
Procurement	241.2	493.9	603.7	590.0	492.4	691.9	827.9	6303.1	10244.1
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	1045.7	587.2	696.5	704.4	628.6	850.0	964.5	6416.2	11893.1
PB 2011 Total	1036.3	587.2	805.3	1255.9	1691.1	1260.1	635.8	4414.3	11686.0
Delta	9.4	0.0	-108.8	-551.5	-1062.5	-410.1	328.7	2001.9	207.1

PB11 costs and quantities reported on this page include New Build (AB3B) aircraft. These costs and quantities could not be removed due to software restrictions.

The correct PB 2011 Appropriation Total line should be as follows:

Prior	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	To Complete	Total
1036.3	587.2	698.6	659.9	534.3	609.3	635.8	4414.3	9175.7

The correct PB 2011 Quantity Total line should be as follows:

Undistributed	Prior	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	To Complete	Total
5	8	16	19	40	24	43	53	431	639

Quantity	Undistributed	Prior	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	To Complete	Total
Development	5	0	0	0	0	0	0	0	0	5
Production	0	8	16	19	40	24	43	53	431	634
PB 2012 Total	5	8	16	19	40	24	43	53	431	639
PB 2011 Total	5	8	16	27	56	62	67	50	404	695
Delta	0	0	0	-8	-16	-38	-24	3	27	-56

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
2005	--	--	--	--	--	--	57.0
2006	--	--	--	--	--	--	104.1
2007	--	--	--	--	--	--	118.9
2008	--	--	--	--	--	--	185.4
2009	--	--	--	--	--	--	192.2
2010	--	--	--	--	--	--	146.9
2011	--	--	--	--	--	--	93.3
2012	--	--	--	--	--	--	92.8
2013	--	--	--	--	--	--	114.4
2014	--	--	--	--	--	--	136.2
2015	--	--	--	--	--	--	158.1
2016	--	--	--	--	--	--	136.6
2017	--	--	--	--	--	--	113.1
Subtotal	**5**	**--**	**--**	**--**	**--**	**--**	**1649.0**

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

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2010 $M	Non End Item Recurring Flyaway BY 2010 $M	Non Recurring Flyaway BY 2010 $M	Total Flyaway BY 2010 $M	Total Support BY 2010 $M	Total Program BY 2010 $M
2005	--	--	--	--	--	--	61.7
2006	--	--	--	--	--	--	109.7
2007	--	--	--	--	--	--	122.4
2008	--	--	--	--	--	--	187.3
2009	--	--	--	--	--	--	191.9
2010	--	--	--	--	--	--	145.0
2011	--	--	--	--	--	--	90.7
2012	--	--	--	--	--	--	88.8
2013	--	--	--	--	--	--	107.7
2014	--	--	--	--	--	--	126.0
2015	--	--	--	--	--	--	143.9
2016	--	--	--	--	--	--	122.2
2017	--	--	--	--	--	--	99.5
Subtotal	**5**	**--**	**--**	**--**	**--**	**--**	**1596.8**

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
2009	--	11.1	--	--	11.1	--	11.1
2010	8	175.8	--	29.3	205.1	25.0	230.1
2011	16	317.7	--	82.0	399.7	94.2	493.9
2012	19	308.4	--	120.5	428.9	174.8	603.7
2013	40	434.1	--	19.7	453.8	136.2	590.0
2014	24	382.7	--	15.2	397.9	94.5	492.4
2015	43	561.3	--	--	561.3	130.6	691.9
2016	53	730.1	--	--	730.1	97.8	827.9
2017	60	754.3	--	--	754.3	105.9	860.2
2018	60	767.6	--	--	767.6	125.1	892.7
2019	60	788.3	--	--	788.3	113.5	901.8
2020	60	772.6	--	--	772.6	112.4	885.0
2021	60	759.0	--	--	759.0	102.2	861.2
2022	57	701.7	--	--	701.7	100.6	802.3
2023	51	598.3	--	--	598.3	102.8	701.1
2024	23	305.2	--	--	305.2	93.6	398.8
Subtotal	**634**	**8368.2**	**--**	**266.7**	**8634.9**	**1609.2**	**10244.1**

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

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2010 $M	Non End Item Recurring Flyaway BY 2010 $M	Non Recurring Flyaway BY 2010 $M	Total Flyaway BY 2010 $M	Total Support BY 2010 $M	Total Program BY 2010 $M
2009	--	11.0	--	--	11.0	--	11.0
2010	8	172.5	--	28.7	201.2	24.5	225.7
2011	16	306.8	--	79.2	386.0	90.9	476.9
2012	19	292.3	--	114.2	406.5	165.7	572.2
2013	40	404.6	--	18.4	423.0	126.9	549.9
2014	24	350.7	--	13.9	364.6	86.7	451.3
2015	43	505.8	--	--	505.8	117.7	623.5
2016	53	646.9	--	--	646.9	86.7	733.6
2017	60	657.2	--	--	657.2	92.2	749.4
2018	60	657.6	--	--	657.6	107.2	764.8
2019	60	664.0	--	--	664.0	95.6	759.6
2020	60	639.9	--	--	639.9	93.1	733.0
2021	60	618.2	--	--	618.2	83.2	701.4
2022	57	561.9	--	--	561.9	80.6	642.5
2023	51	471.1	--	--	471.1	81.0	552.1
2024	23	236.3	--	--	236.3	72.5	308.8
Subtotal	**634**	**7196.8**	**--**	**254.4**	**7451.2**	**1404.5**	**8855.7**

Cost Quantity Information
2031 | Procurement | Aircraft Procurement, Army

Fiscal Year	Quantity	End Item Recurring Flyaway (Aligned with Quantity) BY 2010 $M
2009	--	--
2010	8	126.6
2011	16	208.0
2012	19	265.3
2013	40	509.3
2014	24	296.2
2015	43	498.2
2016	53	628.5
2017	60	659.3
2018	60	659.2
2019	60	665.4
2020	60	670.5
2021	60	632.5
2022	57	573.2
2023	51	523.3
2024	23	281.3
Subtotal	**634**	**7196.8**

Low Rate Initial Production

	Initial LRIP Decision	Current Total LRIP
Approval Date	10/7/2010	10/7/2010
Approved Quantity	51	51
Reference	ADM	ADM
Start Year	2010	2010
End Year	2013	2013

Low Rate Initial Production Rate (LRIP) quantity is 51 in accordance with Acquisition Decision Memorandum (ADM) approved October 7, 2010.

Foreign Military Sales

Country	Date of Sale	Quantity	Total Cost $M	Memo
United Arab Emirates		30	541.7	Projected Letter of Acceptance (LOA) signature date is October 2011.

Nuclear Cost

There are no nuclear costs associated with Apache Block III program.

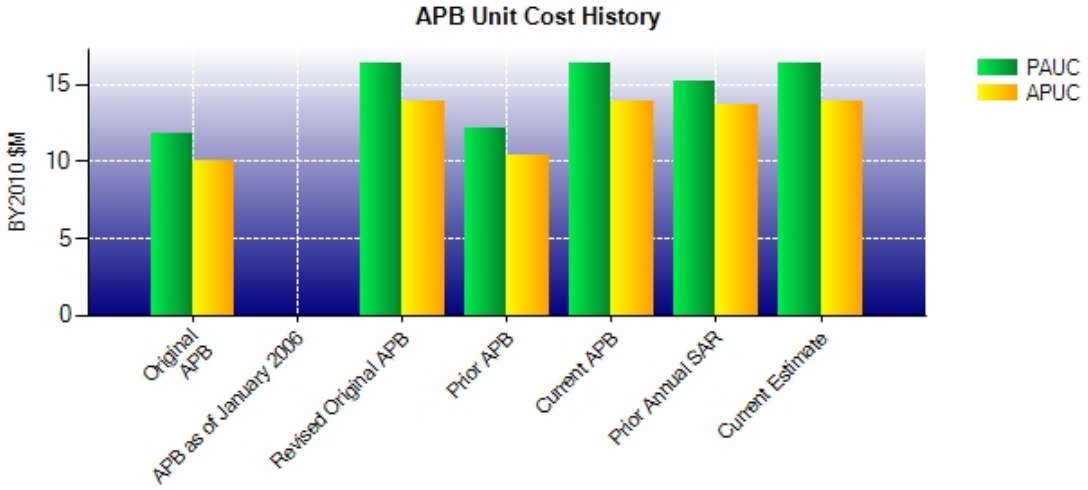
Unit Cost

Unit Cost Report

Unit Cost	BY2010 $M Current UCR Baseline (DEC 2010 APB)	BY2010 $M Current Estimate (DEC 2010 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	10468.7	10452.5	
Quantity	639	639	
Unit Cost	16.383	16.358	-0.15
Average Procurement Unit Cost (APUC)			
Cost	8856.9	8855.7	
Quantity	634	634	
Unit Cost	13.970	13.968	-0.01

Unit Cost	BY2010 $M Revised Original UCR Baseline (DEC 2010 APB)	BY2010 $M Current Estimate (DEC 2010 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	10468.7	10452.5	
Quantity	639	639	
Unit Cost	16.383	16.358	-0.15
Average Procurement Unit Cost (APUC)			
Cost	8856.9	8855.7	
Quantity	634	634	
Unit Cost	13.970	13.968	-0.01

Unit Cost History



		BY2010 $M		TY $M	
	Date	PAUC	APUC	PAUC	APUC
Original APB	AUG 2006	11.829	10.025	13.445	11.649
APB as of January 2006	N/A	N/A	N/A	N/A	N/A
Revised Original APB	DEC 2010	16.383	13.970	18.618	16.139
Prior APB	JUN 2007	12.105	10.432	14.069	12.396
Current APB	DEC 2010	16.383	13.970	18.618	16.139
Prior Annual SAR	DEC 2009	15.189	13.683	16.814	15.333
Current Estimate	DEC 2010	16.358	13.968	18.612	16.158

SAR Unit Cost History

Current SAR Baseline to Current Estimate (TY $M)

Initial PAUC Dev Est	Changes								PAUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
13.445	-0.602	-0.159	0.231	0.000	4.059	0.000	1.638	5.167	18.612

Current SAR Baseline to Current Estimate (TY $M)

Initial APUC Dev Est	Changes								APUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
11.649	-0.590	-0.056	0.233	0.000	3.271	0.000	1.651	4.509	16.158

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	JUN 2006	N/A	JUL 2006
Milestone C	N/A	APR 2010	N/A	SEP 2010
IOC	N/A	JAN 2013	N/A	MAY 2013
Total Cost (TY $M)	N/A	8093.9	N/A	11893.1
Total Quantity	N/A	602	N/A	639
Prog. Acq. Unit Cost (PAUC)	N/A	13.445	N/A	18.612

Cost Variance

Cost Variance Summary

Summary Then Year $M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Dev Est)	1139.2	6954.7	--	8093.9
Previous Changes				
Economic	-12.0	-393.8	--	-405.8
Quantity	--	+395.5	--	+395.5
Schedule	--	+127.6	--	+127.6
Engineering	--	--	--	--
Estimating	-20.9	+80.2	--	+59.3
Other	--	--	--	--
Support	--	+905.1	--	+905.1
Subtotal	-32.9	+1114.6	--	+1081.7
Current Changes				
Economic	+1.4	+19.7	--	+21.1
Quantity	--	--	--	--
Schedule	--	+19.9	--	+19.9
Engineering	--	--	--	--
Estimating	+541.3	+1993.3	--	+2534.6
Other	--	--	--	--
Support	--	+141.9	--	+141.9
Subtotal	+542.7	+2174.8	--	+2717.5
Total Changes	+509.8	+3289.4	--	+3799.2
CE - Cost Variance	1649.0	10244.1	--	11893.1
CE - Cost & Funding	1649.0	10244.1	--	11893.1

Summary Base Year 2010 $M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Dev Est)	1127.1	5937.3	--	7064.4
Previous Changes				
Economic	--	--	--	--
Quantity	--	+201.6	--	+201.6
Schedule	--	+0.9	--	+0.9
Engineering	--	--	--	--
Estimating	-21.1	+81.7	--	+60.6
Other	--	--	--	--
Support	--	+835.5	--	+835.5
Subtotal	-21.1	+1119.7	--	+1098.6
Current Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	+490.8	+1670.9	--	+2161.7
Other	--	--	--	--
Support	--	+127.8	--	+127.8
Subtotal	+490.8	+1798.7	--	+2289.5
Total Changes	+469.7	+2918.4	--	+3388.1
CE - Cost Variance	1596.8	8855.7	--	10452.5
CE - Cost & Funding	1596.8	8855.7	--	10452.5

Previous Estimate: September 2010

Cost Variance Memo

The December 2009 Selected Acquisition Report (SAR) was for the entire Apache Block III (AB3) program and included both Remanufactured and New Build aircraft. The December 2010 SARs reflect the Milestone C (MS C) decision to separate the Remanufactured and New Build programs with the AB3A Remanufacture SAR and the AB3B New Build SAR. Thus, the previous changes shown here do not reflect the additional costs of the New Build AB3B aircraft.

RDT&E	$M	
Current Change Explanations	**Base Year**	**Then Year**
Revised escalation indices. (Economic)	N/A	+1.4
Adjustment for current and prior escalation. (Estimating)	-1.4	-1.4
Increase based on rebaseline of program using Office of Secretary of Defense (OSD) Independent Cost Estimate (ICE). ICE assumes more manhours for software development. (Estimating)	+492.2	+542.7
RDT&E Subtotal	+490.8	+542.7

Procurement	$M	
Current Change Explanations	**Base Year**	**Then Year**
Revised escalation indices. (Economic)	N/A	+19.7
Adjustment to procurement buy profile based on OSD ICE. (Schedule)	0.0	+19.9
Adjustment for current and prior escalation. (Estimating)	-0.6	-0.8
Change in aircraft procurement based on OSD ICE. ICE assumes more manhours in the remanufacture process as well as higher material costs. (Estimating)	+1671.5	+1994.1
Adjustment for current and prior escalation. (Support)	-0.2	0.0
Increase in Other Support based on refinement of program office estimate realigning costs into the proper support categories. (Support)	+113.2	+121.8
Increase in Initial Spares based on OSD ICE. (Support)	+14.8	+20.1
Procurement Subtotal	+1798.7	+2174.8

Contracts

Appropriation: RDT&E

Contract Name	**Block III SDD and Risk and Reduction**
Contractor	McDonnell Douglas Helicopter
Contractor Location	Mesa, AZ 85215
Contract Number, Type	W58RGZ-05-C-0001, CPIF
Award Date	July 14, 2006
Definitization Date	July 14, 2006

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
619.3	N/A	5	666.5	N/A	5	666.5	666.5

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (12/23/2010)	-3.8	-10.9
Previous Cumulative Variances	-0.4	-7.2
Net Change	-3.4	-3.7

Cost And Schedule Variance Explanations

The net unfavorable cost variance is due to inefficiencies in execution of the Open System Architecture, Level 4 Unmanned Aerial Vehicle (UAV), Electrical, Software, Test and Evaluation (T&E), and Training Device System Integrated Product Teams (IPTs).

The net unfavorable change in schedule variance is due to delays in supplier performance in the Open System Architecture, Composite Main Rotor Blade, Training Systems, System Integration Engineering, Level 4 UAV, and Improved Drive System IPTs, drawing release delays in Improved Drive System IPT, delays in supplier test plan submission in the T&E IPT and delays in supplier testing in the Electrical IPT.

Contract Comments

The initial contract target price represented initial award of Block III Risk Reduction and System Development and Demonstration (SDD) in June 2005. The current contract name, contract type, award, definitization, and current contract target price reflect status with the award of the AB3 SDD through Lot 3 configuration and associated directed changes to that contract.

Government directed changes drove the increase in contract price.

Appropriation: RDT&E

Contract Name	**Block III REU/TCDL**
Contractor	LONGBOW LLC
Contractor Location	ORLANDO, FL 32819
Contract Number, Type	W58RGZ-05-C-0239, CPIF
Award Date	January 20, 2005
Definitization Date	September 29, 2006

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
110.0	N/A	N/A	110.0	N/A	N/A	115.7	115.7

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (9/27/2009)	-5.5	-1.8
Previous Cumulative Variances	-2.1	-1.8
Net Change	-3.4	+0.0

Cost And Schedule Variance Explanations

Delays in Supplier Performance and delivery drive the schedule variance. Delays in supplier performance resulted in hardware to be more complex than originally planned, thus driving the net unfavorable cost variance.

Contract Comments

The initial contract price and target price represented initial award of Block III, Radar Electronics Unit/Tactical Common Data Link (REU/TCDL) risk reduction in July 2005.

Earned Value (EV) data has not been reported after September 2009 since the contract was being modified and was in the process of being definitized. The contract modification was definitized on March 3, 2011 and EV data now will resume being reported.

Deliveries and Expenditures

Deliveries To Date	Plan To Date	Actual To Date	Total Quantity	Percent Delivered
Development	5	5	5	100.00%
Production	0	0	634	0.00%
Total Program Quantities Delivered	5	5	639	0.78%

Expenditures and Appropriations (TY $M)			
Total Acquisition Cost	11893.1	Years Appropriated	7
Expenditures To Date	825.5	Percent Years Appropriated	35.00%
Percent Expended	6.94%	Appropriated to Date	1632.9
Total Funding Years	20	Percent Appropriated	13.73%

Operating and Support Cost

Assumptions And Ground Rules
Assumes the fielding of 690 aircraft, each flying 203.4 hours per year. The estimate is based on a 20-year service life. The Mean Time Between Failure (MTBF) goal for the aircraft system is 22 hours at maturity (50,000) hours. The costs are updated annually to reflect the Operating and Support Management Information System (OSMIS) database. The Operating and Support Cost estimate is based on the Army Cost Position from May 2010. The Apache Longbow is the antecedent aircraft to the Apache Block III.

Costs BY2010 $K		
Cost Element	**AB3A REMANUFACTURE Avg Annual Cost Per AB3 Aircraft**	**Longbow Apache Avg Annual Cost Per Longbow Aircraft**
Unit-Level Manpower	1074.1	861.9
Unit Operations	795.2	908.5
Maintenance	100.2	54.1
Sustaining Support	89.8	28.1
Continuing System Improvements	179.1	232.2
Indirect Support	242.1	202.6
Other	0.0	0.0
Total Unitized Cost (Base Year 2010 $)	2480.5	2287.4

Total O&S Costs $M	AB3A REMANUFACTURE	Longbow Apache
Base Year	34293.9	16784.5
Then Year	50781.5	19024.9

AB3A Operating and Support (O&S) costs include AB3B O&S costs.