Selected Acquisition Report (SAR)

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

AB3A REMANUFACTURE

As of December 31, 2011

Defense Acquisition Management
Information Retrieval
(DAMIR)

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Program Information

Designation And Nomenclature (Popular Name)

APACHE BLOCK IIIA REMANUFACTURE (AB3A REMANUFACTURE)

DoD Component

Army

Responsible Office

Responsible Office

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Date Assigned August 14, 2008

References

SAR Baseline (Production Estimate)

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

Approved APB

Defense Acquisition Executive (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 through 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 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 Remanufacture 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. The first AB3A production delivery occurred October 24, 2011 with a formal roll out ceremony held November 2, 2011. Initial Operational Test and Evaluation (IOT&E) will occur with AB3A production aircraft March 2012.

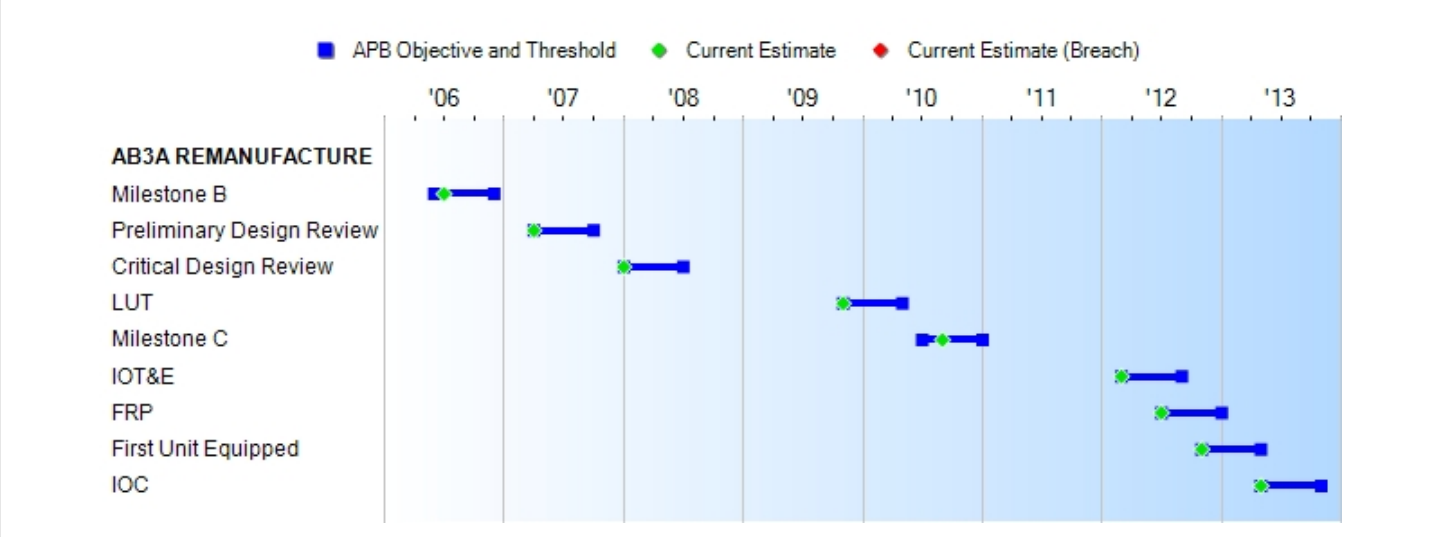
There are no significant software-related issues with this program.

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 Prod 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	JUL 2010	JUL 2010	JAN 2011	SEP 2010
IOT&E	MAR 2012	MAR 2012	SEP 2012	MAR 2012
FRP	JUL 2012	JUL 2012	JAN 2013	JUL 2012
First Unit Equipped	NOV 2012	NOV 2012	MAY 2013	NOV 2012
IOC	MAY 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

None

Performance

Characteristics	SAR Baseline Prod Est	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.	TBD	Support execution of all critical operational activities	
Performance						
6000' PA, 95 F OGE Hover (lbs/payload)	4,100	4,100	3,400	TBD	3400	(Ch-1)
Mission Reliability						
MTBF(M) hrs.						
Lot 1	22	22	15.3	TBD	15.3	(Ch-1)
Lot 4	22	22	17	TBD	17	(Ch-1)
MR for 3.5 hr. flight (%)	85	85	80	TBD	80	(Ch-1)
Survivability						
Safe operation (minutes)	30	30	30	TBD	30	
Survive Band IV MANPADS IR Missile Engagement	IAW JROCM 086-10	IAW JROCM 086-10	IAW JROCM 086-10	TBD	IAW JROCM 086-10	(Ch-1)
Force Protection						
Crewstation armor survivability (mm)	IAW JROCM 086-10	IAW JROCM 086-10	IAW JROCM 086-10	TBD	IAW JROCM 086-10	(Ch-1)
Crewstation armor barrier survivability (mm)	IAW JROCM 086-10	IAW JROCM 086-10	IAW JROCM 086-10	TBD	IAW JROCM 086-10	(Ch-1)

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

Acronyms And Abbreviations

% - Percent
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 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

(Ch-1) Current estimate revised to reflect Initial Operational Test and Evaluation (IOT&E) threshold values. The performance current estimate changed as indicated:
- Performance changed from 4,100 to 3,400
- Mission Reliability Lot 1 changed from 22 to 15.3
- Mission Reliability Lot 4 changed from 22 to 17
- Mission Reliability for 3.5 hr. flight (%) changed from 85 to 80
- Survive Band IV changed fromIAW JROCM 132.06 to to JROCM 086-10
- Crewstation armor survivability changed from 12.7 to IAW JROCM 086-10
- Crewstation armor barrier survivability changed from 23 to IAW JROCM 086-10.

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 advance 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 Prod Est	Current APB Production Objective/Threshold		Current Estimate	SAR Baseline Prod Est	Current APB Production Objective	Current Estimate
RDT&E	1611.8	1611.8	1773.0	1610.4	1664.7	1664.7	1678.9
Procurement	8856.9	8856.9	9742.6	8639.0	10231.9	10231.9	10289.4
Flyaway	7383.2	--	--	7226.7	8543.6	--	8625.5
Recurring	7128.5	--	--	6967.8	8277.0	--	8353.2
Non Recurring	254.7	--	--	258.9	266.6	--	272.3
Support	1473.7	--	--	1412.3	1688.3	--	1663.9
Other Support	1306.3	--	--	1223.9	1496.9	--	1439.8
Initial Spares	167.4	--	--	188.4	191.4	--	224.1
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	10468.7	10468.7	N/A	10249.4	11896.6	11896.6	11968.3

Confidence Level For Current APB Cost 50% - based on the Independent Cost Estimate (ICE) prepared for the Acquisition Program Baseline (APB).

The ICE to support Apache Block III Remanufacture (AB3A) Milestone Decision C is similar to all life-cycle cost estimates previously performed by the Cost Assessment and Program Evaluation (CAPE). This ICE is built upon a work breakdown structure that wherever possible uses actual cost information along with conservative assumptions that are consistent with contractor and government performance demonstrated in other successful Department acquisition programs. This strategy fully supports the APB objective and threshold positions.

It is difficult to precisely calculate confidence levels associated with life cycle cost estimates for Major Defense Acquisition Programs. Despite collecting and incorporating extensive historical cost information, our projections show that the estimate is equally likely to be too low or too high when executing the current program. We are confident that, as we accumulate additional cost data, we will be better able to predict the life cycle costs.

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

Cost and Funding

Funding Summary

Appropriation and Quantity Summary
FY2013 President's Budget / December 2011 SAR (TY$ M)

Appropriation	Prior	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	To Complete	Total
RDT&E	895.2	92.7	124.5	153.9	160.0	138.2	114.4	0.0	1678.9
Procurement	766.7	561.3	684.8	618.8	517.7	605.9	526.2	6008.0	10289.4
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 2013 Total	1661.9	654.0	809.3	772.7	677.7	744.1	640.6	6008.0	11968.3
PB 2012 Total	1632.9	696.5	704.4	628.6	850.0	964.5	973.3	5442.9	11893.1
Delta	29.0	-42.5	104.9	144.1	-172.3	-220.4	-332.7	565.1	75.2

Quantity	Undistributed	Prior	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	To Complete	Total
Development	5	0	0	0	0	0	0	0	0	5
Production	0	24	19	40	38	37	44	37	395	634
PB 2013 Total	5	24	19	40	38	37	44	37	395	639
PB 2012 Total	5	24	19	40	24	43	53	60	371	639
Delta	0	0	0	0	14	-6	-9	-23	24	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
2005	--	--	--	--	--	--	57.0
2006	--	--	--	--	--	--	104.1
2007	--	--	--	--	--	--	118.9
2008	--	--	--	--	--	--	185.4
2009	--	--	--	--	--	--	192.2
2010	--	--	--	--	--	--	146.9
2011	--	--	--	--	--	--	90.7
2012	--	--	--	--	--	--	92.7
2013	--	--	--	--	--	--	124.5
2014	--	--	--	--	--	--	153.9
2015	--	--	--	--	--	--	160.0
2016	--	--	--	--	--	--	138.2
2017	--	--	--	--	--	--	114.4
Subtotal	**5**	**--**	**--**	**--**	**--**	**--**	**1678.9**

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	--	--	--	--	--	--	122.3
2008	--	--	--	--	--	--	187.2
2009	--	--	--	--	--	--	191.6
2010	--	--	--	--	--	--	144.2
2011	--	--	--	--	--	--	87.2
2012	--	--	--	--	--	--	87.6
2013	--	--	--	--	--	--	115.4
2014	--	--	--	--	--	--	140.2
2015	--	--	--	--	--	--	143.1
2016	--	--	--	--	--	--	121.4
2017	--	--	--	--	--	--	98.8
Subtotal	**5**	**--**	**--**	**--**	**--**	**--**	**1610.4**

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	138.5	--	66.7	205.2	59.4	264.6
2011	16	240.2	--	128.5	368.7	122.3	491.0
2012	19	370.2	--	52.3	422.5	138.8	561.3
2013	40	518.7	--	9.6	528.3	156.5	684.8
2014	38	520.1	--	15.2	535.3	83.5	618.8
2015	37	446.8	--	--	446.8	70.9	517.7
2016	44	526.6	--	--	526.6	79.3	605.9
2017	37	446.9	--	--	446.9	79.3	526.2
2018	33	548.0	--	--	548.0	85.2	633.2
2019	48	674.3	--	--	674.3	104.1	778.4
2020	48	657.1	--	--	657.1	109.0	766.1
2021	48	652.8	--	--	652.8	106.0	758.8
2022	48	632.7	--	--	632.7	104.0	736.7
2023	48	663.3	--	--	663.3	108.3	771.6
2024	48	636.3	--	--	636.3	99.5	735.8
2025	48	455.7	--	--	455.7	96.1	551.8
2026	26	213.9	--	--	213.9	61.7	275.6
Subtotal	**634**	**8353.2**	**--**	**272.3**	**8625.5**	**1663.9**	**10289.4**

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	134.8	--	64.9	199.7	57.8	257.5
2011	16	229.3	--	122.5	351.8	116.8	468.6
2012	19	346.5	--	49.0	395.5	129.9	525.4
2013	40	477.5	--	8.8	486.3	144.2	630.5
2014	38	470.5	--	13.7	484.2	75.5	559.7
2015	37	397.0	--	--	397.0	63.0	460.0
2016	44	459.6	--	--	459.6	69.3	528.9
2017	37	383.2	--	--	383.2	68.0	451.2
2018	33	461.6	--	--	461.6	71.7	533.3
2019	48	557.9	--	--	557.9	86.1	644.0
2020	48	534.0	--	--	534.0	88.6	622.6
2021	48	521.2	--	--	521.2	84.6	605.8
2022	48	496.2	--	--	496.2	81.6	577.8
2023	48	511.0	--	--	511.0	83.4	594.4
2024	48	481.5	--	--	481.5	75.3	556.8
2025	48	338.8	--	--	338.8	71.4	410.2
2026	26	156.2	--	--	156.2	45.1	201.3
Subtotal	**634**	**6967.8**	**--**	**258.9**	**7226.7**	**1412.3**	**8639.0**

Cost Quantity Information
2031 | Procurement | Aircraft Procurement, Army

Fiscal Year	Quantity	End Item Recurring Flyaway (Aligned with Quantity) BY 2010 $M
2009	--	--
2010	8	135.0
2011	16	201.6
2012	19	265.3
2013	40	455.2
2014	38	514.5
2015	37	406.2
2016	44	447.6
2017	37	398.2
2018	33	468.8
2019	48	507.3
2020	48	535.7
2021	48	523.3
2022	48	503.4
2023	48	514.6
2024	48	490.9
2025	48	351.8
2026	26	248.4
Subtotal	**634**	**6967.8**

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	542.0	Projected Letter of Acceptance (LOA) signature date is October 2013.
United Kingdom		67	2000.0	Projected Letter of Acceptance (LOA) signature date is October 2013.

Nuclear Cost

None

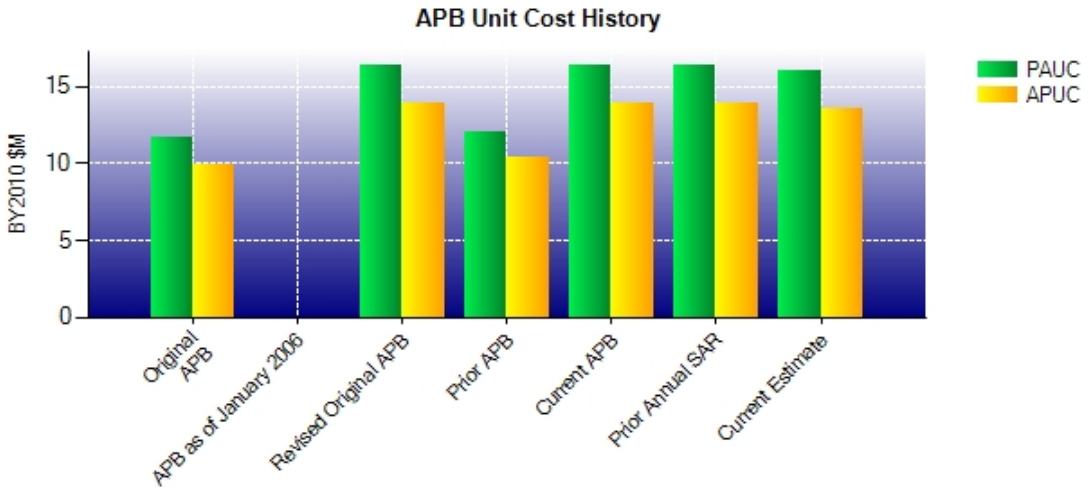
Unit Cost

Unit Cost Report

Unit Cost	BY2010 $M Current UCR Baseline (DEC 2010 APB)	BY2010 $M Current Estimate (DEC 2011 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	10468.7	10249.4	
Quantity	639	639	
Unit Cost	16.383	16.040	-2.09
Average Procurement Unit Cost (APUC)			
Cost	8856.9	8639.0	
Quantity	634	634	
Unit Cost	13.970	13.626	-2.46

Unit Cost	BY2010 $M Revised Original UCR Baseline (DEC 2010 APB)	BY2010 $M Current Estimate (DEC 2011 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	10468.7	10249.4	
Quantity	639	639	
Unit Cost	16.383	16.040	-2.09
Average Procurement Unit Cost (APUC)			
Cost	8856.9	8639.0	
Quantity	634	634	
Unit Cost	13.970	13.626	-2.46

Unit Cost History



		BY2010 $M		TY $M	
	Date	PAUC	APUC	PAUC	APUC
Original APB	AUG 2006	11.735	9.945	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	12.008	10.349	14.069	12.396
Current APB	DEC 2010	16.383	13.970	18.618	16.139
Prior Annual SAR	DEC 2010	16.358	13.968	18.612	16.158
Current Estimate	DEC 2011	16.040	13.626	18.730	16.229

SAR Unit Cost History

Initial SAR Baseline to Current SAR Baseline (TY $M)

Initial PAUC Dev Est	Changes								PAUC Prod Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
13.445	-0.626	-0.159	0.231	0.000	3.961	0.000	1.766	5.173	18.618

Current SAR Baseline to Current Estimate (TY $M)

PAUC Prod Est	Changes								PAUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
18.618	0.318	0.000	0.221	0.000	-0.343	0.000	-0.084	0.112	18.730

Initial SAR Baseline to Current SAR Baseline (TY $M)

Initial APUC Dev Est	Changes								APUC Prod Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
11.649	-0.614	-0.056	0.233	0.000	3.147	0.000	1.780	4.490	16.139

Current SAR Baseline to Current Estimate (TY $M)

APUC Prod Est	Changes								APUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
16.139	0.297	0.000	0.223	0.000	-0.345	0.000	-0.084	0.091	16.229

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	JUN 2006	JUL 2006
Milestone C	N/A	APR 2010	JUL 2010	SEP 2010
IOC	N/A	JAN 2013	MAY 2013	MAY 2013
Total Cost (TY $M)	N/A	8093.9	11896.6	11968.3
Total Quantity	N/A	602	639	639
Prog. Acq. Unit Cost (PAUC)	N/A	13.445	18.618	18.730

Cost Variance

Cost Variance Summary

Summary Then Year $M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Prod Est)	1664.7	10231.9	--	11896.6
Previous Changes				
Economic	+0.1	+15.2	--	+15.3
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	-15.8	+78.5	--	+62.7
Other	--	--	--	--
Support	--	-81.5	--	-81.5
Subtotal	-15.7	+12.2	--	-3.5
Current Changes				
Economic	+15.1	+173.1	--	+188.2
Quantity	--	--	--	--
Schedule	--	+141.5	--	+141.5
Engineering	--	--	--	--
Estimating	+14.8	-297.4	--	-282.6
Other	--	--	--	--
Support	--	+28.1	--	+28.1
Subtotal	+29.9	+45.3	--	+75.2
Total Changes	+14.2	+57.5	--	+71.7
CE - Cost Variance	1678.9	10289.4	--	11968.3
CE - Cost & Funding	1678.9	10289.4	--	11968.3

Summary Base Year 2010 $M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Prod Est)	1611.8	8856.9	--	10468.7
Previous Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	-15.0	+68.0	--	+53.0
Other	--	--	--	--
Support	--	-69.2	--	-69.2
Subtotal	-15.0	-1.2	--	-16.2
Current Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	+13.6	-224.5	--	-210.9
Other	--	--	--	--
Support	--	+7.8	--	+7.8
Subtotal	+13.6	-216.7	--	-203.1
Total Changes	-1.4	-217.9	--	-219.3
CE - Cost Variance	1610.4	8639.0	--	10249.4
CE - Cost & Funding	1610.4	8639.0	--	10249.4

Previous Estimate: December 2010

RDT&E	$M	
Current Change Explanations	**Base Year**	**Then Year**
Revised escalation indices. (Economic)	N/A	+15.1
Adjustment for current and prior escalation. (Estimating)	-3.4	-3.5
Increase based on refinement of Program Office Estimate (POE). (Estimating)	+17.0	+18.3
RDT&E Subtotal	+13.6	+29.9

Procurement	$M	
Current Change Explanations	**Base Year**	**Then Year**
Revised escalation indices. (Economic)	N/A	+173.1
Extended procurement buy profile due to annual quantity decrease in FY 2013 President's Budget. (Schedule)	0.0	+141.5
Revised POE due to actual contract cost information. (Estimating)	-213.2	-285.9
Adjustment for current and prior escalation. (Estimating)	-11.3	-11.5
Adjustment for current and prior escalation. (Support)	-3.1	-3.7
Changes in Other Support due to adjustment of training requirements. (Support)	-10.4	+1.8
Increase in Initial Spares due to extension of schedule. (Support)	+21.3	+30.0
Procurement Subtotal	-216.7	+45.3

Contracts

Appropriation: RDT&E

Contract Name	**AB3 SDD and Risk and Reduction**
Contractor	The Boeing Company
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	680.7	N/A	5	597.9	597.9

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (1/31/2012)	-10.8	-6.4
Previous Cumulative Variances	-3.8	-10.9
Net Change	-7.0	+4.5

Cost And Schedule Variance Explanations

The unfavorable net change in the cost variance is due to difficulties associated with instrumentation failures and weather delays which have caused most of the cost variance in structures aircraft testing.

The favorable net change in the schedule variance is due to several accounts being completed.

Contract Comments

This contract is more than 90% complete; therefore, this is the final report for this contract.

The difference between the initial contract price target and the current contract price target is due to government directed changes.

The initial contract target price represented initial award of AB3 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 production Lot 3 configuration and associated directed changes to that contract.

Deliveries and Expenditures

Deliveries To Date	Plan To Date	Actual To Date	Total Quantity	Percent Delivered
Development	5	5	5	100.00%
Production	3	3	634	0.47%
Total Program Quantities Delivered	8	8	639	1.25%

Expenditures and Appropriations (TY $M)			
Total Acquisition Cost	11968.3	Years Appropriated	8
Expenditures To Date	1151.7	Percent Years Appropriated	36.36%
Percent Expended	9.62%	Appropriated to Date	2315.9
Total Funding Years	22	Percent Appropriated	19.35%

This data is as of December 31, 2011.

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 (O&S) Cost estimate is based on the Program Office Estimate dated December 2011. The Longbow Apache is the antecedent aircraft to the Apache Block III. AB3 O&S costs = Total Unitized Cost * Fleet Size * Fleet Life $33638.9 M = $2437.6K * 690 * 20 Longbow O&S costs = Total Unitized Cost * Remaining Flying Hours $15350.4M = $2285.3K * 6717

Costs BY2010 $K		
Cost Element	**AB3A REMANUFACTURE Avg Annual Cost Per AB3 Aircraft**	**Longbow Apache Avg Annual Cost Per Longbow Aircraft**
Unit-Level Manpower	1076.0	855.7
Unit Operations	795.2	912.0
Maintenance	94.8	54.5
Sustaining Support	89.7	28.3
Continuing System Improvements	182.1	234.0
Indirect Support	199.8	201.0
Other	0.0	0.0
Total Unitized Cost (Base Year 2010 $)	2437.6	2285.5

Total O&S Costs $M	AB3A REMANUFACTURE	Longbow Apache
Base Year	33638.9	15350.4
Then Year	45781.5	17869.0

O&S costs include AB3A as well as AB3B.

Demil costs are included in this O&S estimate. $3,885 to demil one AB3 aircraft.

Reduction of Total O&S Costs is due to estimation error. Too many total soldiers were included in the original personnel estimate for purposes of training. This error encompassed both the reserve and active component formations.