Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-334

P-8A Poseidon Multi-Mission Maritime Aircraft (P-8A)

As of FY 2015 President's Budget

Defense Acquisition Management
Information Retrieval
(DAMIR)

Table of Contents

Common Acronyms and Abbreviations

Acq O&M - Acquisition-Related Operations and Maintenance
APB - Acquisition Program Baseline
APPN - Appropriation
APUC - Average Procurement Unit Cost
BA - Budget Authority/Budget Activity
BY - Base Year
DAMIR - Defense Acquisition Management Information Retrieval
Dev Est - Development Estimate
DoD - Department of Defense
DSN - Defense Switched Network
Econ - Economic
Eng - Engineering
Est - Estimating
FMS - Foreign Military Sales
FY - Fiscal Year
IOC - Initial Operational Capability
$K - Thousands of Dollars
LRIP - Low Rate Initial Production
$M - Millions of Dollars
MILCON - Military Construction
N/A - Not Applicable
O&S - Operating and Support
Oth - Other
PAUC - Program Acquisition Unit Cost
PB - President's Budget
PE - Program Element
Proc - Procurement
Prod Est - Production Estimate
QR - Quantity Related
Qty - Quantity
RDT&E - Research, Development, Test, and Evaluation
SAR - Selected Acquisition Report
Sch - Schedule
Spt - Support
TBD - To Be Determined
TY - Then Year
UCR - Unit Cost Reporting

Program Information

Program Name

P-8A Poseidon Multi-Mission Maritime Aircraft (P-8A)

DoD Component

Navy

Responsible Office

Responsible Office

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Date Assigned May 29, 2012

References

SAR Baseline (Production Estimate)

Defense Acquisition Executive (DAE) Approved Acquisition Progam Baseline (APB) dated October 22, 2010

Approved APB

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated February 5, 2014

Mission and Description

The P-8A Poseidon Multi-mission Maritime Aircraft (P-8A), is based on the 737-800 ERX developed by The Boeing Company. The management of the contracted effort is located at The Boeing Company in Seattle, Washington. The system requirements are based on the P-8A Capability Production Document #791-88-09, validated and approved on June 22, 2009. P-8A is the replacement system for the P-3C, Orion. The P-8A system will sustain and improve the armed maritime and littoral Intelligence, Surveillance, and Reconnaissance capabilities for United States Naval forces in traditional, joint and combined roles to counter changing and emerging threats. The P-8A program is structured on an evolutionary systems replacement approach that aligns the processes employed for requirements definition, acquisition strategy, and system development into a dynamic and flexible means to attain the strategic vision for tomorrow's Naval forces. The P-8A is part of the Maritime Patrol and Reconnaissance Force Family of Systems that also includes the MQ-4C Triton Unmanned Aircraft System, the EP-3, and the Tactical Operations Center. The primary roles of P-8A are persistent Anti-Submarine Warfare and Anti-Surface Warfare. The program will deliver the first increment of capability to the users in the quickest and most cost efficient manner.

Executive Summary

The P-8A Poseidon has successfully achieved its most significant remaining System Development & Demonstration milestones, including completion of Initial Operational Test and Evaluation (IOT&E), achievement of Initial Operating Capability, commencement of first operational deployment and approval for Full Rate Production (FRP). Live Fire Test and Evaluation completed in February 2013. IOT&E completed in March 2013. The IOT&E report released by Commander, Operational Test Force in July 2013 rated the P-8A as operationally effective, operationally suitable, and recommended Fleet introduction. Integrated testing of deficiency corrections and of the Harpoon Anti-Surface Warfare weapon integration successfully completed in September 2013. The current fleet release software build is supporting successful, on-going fleet squadron transition training at Naval Air Station Jacksonville, Florida and operational deployment to Naval Air Facility Kadena, Japan.

Increment 2 Engineering Change Proposal (ECP) 1 developmental flight testing completed in March 2014. Quick look reports on multiple Developmental Test flights over submarine indicated successful detect and localization on every event. Increment 2 ECP 2 Final Design Review completed in December 2013 and software development is on-track. Increment 2 ECP 3 proposal is currently under evaluation.

A change to the P-8A Acquisition Strategy to add a fourth lot of LRIP of thirteen aircraft in FY 2013 was approved July 15, 2013. The program received FRP approval on January 3, 2014 and awarded the FRP Lot I contract for sixteen aircraft on February 25, 2014. To date, five lots of LRIP/FRP aircraft, including fifty-three aircraft and associated trainers, spares and support equipment, are on contract with Boeing Defense Space and Security. The initial two lots of thirteen total LRIP aircraft were delivered to the fleet on or ahead of schedule. The remaining forty LRIP/FRP aircraft are on order and the program continues preparations for award of subsequent production lots. The program has continued to reduce unit costs for each aircraft production lot through effective negotiations with the prime contractor and through development and implementation of production process improvement initiatives.

There are two P-8A Memorandums of Understanding (MOU) in effect between the United States and Australia. The Increment 2 MOU, signed April 2009, authorizes Australian participation in P-8A Increment 2 development. The Production, Sustainment, and Follow-on Development MOU, signed March 2012, authorizes Australian procurement of Increment 2 capable P-8A aircraft, participation in development of common sustainment strategies for the life of the aircraft, and participation in development of new platform capabilities.

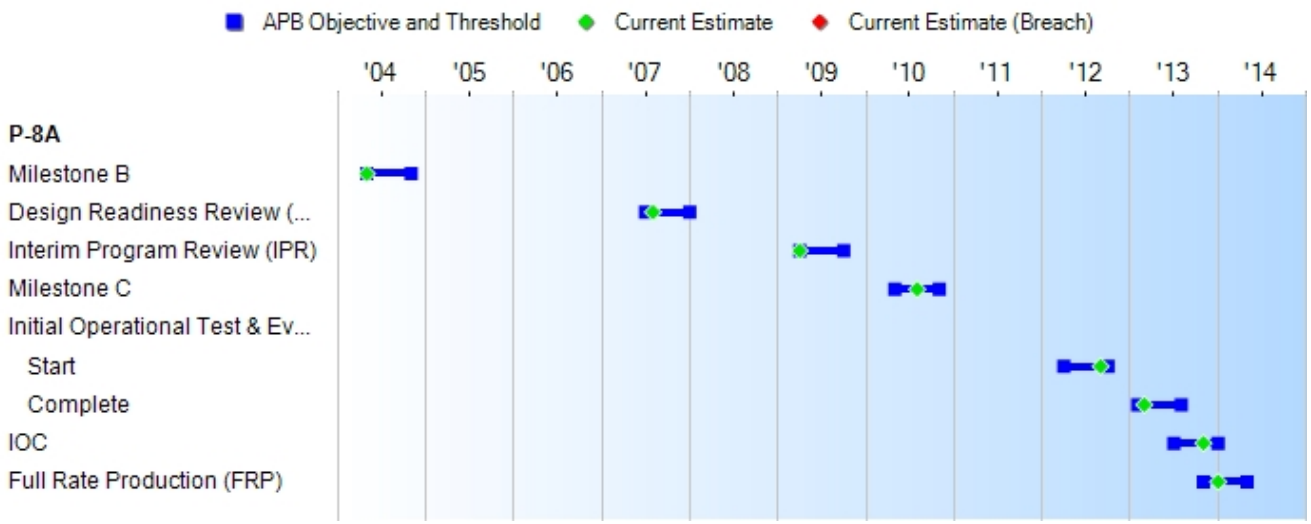
There are no significant software-related issues with this program at this time.

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



Milestones	SAR Baseline Prod Est	Current APB Production Objective/Threshold		Current Estimate	
Milestone B	MAY 2004	MAY 2004	NOV 2004	MAY 2004	
Design Readiness Review (DRR)	JUL 2007	JUL 2007	JAN 2008	AUG 2007	
Interim Program Review (IPR)	APR 2009	APR 2009	OCT 2009	APR 2009	
Milestone C	MAY 2010	MAY 2010	NOV 2010	AUG 2010	
Initial Operational Test & Evaluation (IOT&E)					
Start	APR 2012	APR 2012	OCT 2012	SEP 2012	
Complete	FEB 2013	FEB 2013	AUG 2013	MAR 2013	
IOC	JUL 2013	JUL 2013	JAN 2014	NOV 2013	(Ch-1)
Full Rate Production (FRP)	APR 2013	NOV 2013	MAY 2014	JAN 2014	(Ch-2)

Change Explanations

(Ch-1) IOC current estimate changed from October 2013 to November 2013 to reflect the actual date IOC was achieved and commencement of the first P-8A operational deployment.

(Ch-2) FRP current estimate changed from October 2013 to January 2014 to reflect the actual FRP Acquisition Decision Memorandum signature date authorizing P-8A to enter FRP.

Performance

Characteristics	SAR Baseline Prod Est	Current APB Production Objective/Threshold		Demonstrated Performance	Current Estimate	
Mission Radius/Endurance Subsurface attack (nm)	>=1,600/>=4	>=1,600/>=4	1,200/4	1,262	1,262	(Ch-1)
Mixed Stores Loadout (ASW)(lbs)	12,500	12,500	10,000	13,275	25,000	(Ch-2)
Initial On-station Altitude (ft)	49,000	49,000	25,000	39,000	39,000	
Operational Availability (ASW)	.8	(Objective = Threshold) .8	.8	.67	.8 at IOC plus 2 years	
Force Protection (%)	100	(Objective = Threshold) 100	100	100	100	
Net-Ready	Fully support execution of joint operational activities	Fully support execution of joint operational activities	Fully support execution of joint critical operational activities	Fully support execution of joint operational activities. JITC certification letter signed October 25, 2013.	Fully support execution of joint operational activities	

Classified Performance information is provided in the classified annex to this submission.

Requirements Source

Capability Production Document (CPD) (Increment 1) dated June 22, 2009 and Capability Development Document (CDD) (Increment 2 and 3) dated June 25, 2010

Change Explanations

(Ch-1) The Mission Radius Current Estimate changed from 1,250 to 1,262 as a result of IT&E actual performance achievements.

(Ch-2) The Mixed Stores Loadout (ASW)(lbs) Current Estimate changed from 22,000 to 25,000. By design, the P-8A is capable of carrying 25,000 lbs of stores (wing stores / weapons bay stores / sonobuoys).

Memo

Joint Requirements Oversight Council Memorandum 111-09 dated June 22, 2009 approved the P-8A Multi-mission Maritime Aircraft Increment 1 Capabilities Production Document (Serial # 791-88-09). In the Milestone C Acquisition Decision Memorandum, the USD(AT&L) authorized the following capabilities to be acquired as ECPs within the baseline program: Automatic Identification System, Multi-static Active Coherent, High Altitude Anti-Submarine Warfare Weapon Capability and Sensors, Rapid Capability Insertion Acoustics Algorithms, and Tactical

Operations Center updates. These ECPs provide additional capabilities beyond the P-8A Increment 1 capability and will be incorporated in-line with production or via retrofit.

Acronyms and Abbreviations

ASW - Anti-Submarine Warfare
CDD - Capability Development Document
CPD - Capability Production Document
ECP - Engineering Change Proposal
ft - Feet
IT&E - Integrated Test and Evaluation
lbs - Pounds
nm - Nautical miles
USD (AT&L) - Under Secretary of Defense for Acquisition, Technology, and Logistics

Track to Budget

General Memo

The RDT&E cost parameters include the costs associated with Project Unit 2696 (Increment 1 System Development and Demonstration (SDD)) and Project Unit 3181 (Increment 2 next Phase of Capabilities (previously called Spiral One)). Project Unit 3181 capabilities will be integrated into the P-8A through Engineering Change Proposals (ECPs) as approved in the Milestone C (MS C) Acquisition Decision Memorandum dated August 27, 2010. These ECPs are: Automatic Identification System, Multi-static Active Coherent, High Altitude Anti-submarine Warfare Weapon Capability and Sensors, Rapid Capability Insertion Acoustics Algorithms, and Tactical Operations Center updates. Project Unit 3218 (P-8A Increment 3 (previously called Spiral Two)) was not included in the Acquisition Program Baseline cost parameters established at MS C and are excluded from the funding reported in this SAR.

RDT&E

Appn		BA	PE
Navy	1319	05	0605500N

Project	Name
2696	P-8A Multi-mission Maritime Aircraft SDD
3181	P-8A Spiral One Development
Notes:	P-8A Multi-mission Maritime Aircraft Increment 2 (formerly Spiral 1)

Procurement

Appn		BA	PE
Navy	1506	01	0204251N

Line Item	Name
019300	P-8A Poseidon

Appn		BA	PE
Navy	1506	06	0204251N

Line Item	Name
060500	Spares and Repair Parts

MILCON

Appn		BA	PE
Navy	1205	01	0212176N

Project	Name	
P252	P-8A Hangar & Apron Expansion	(Sunk)
Notes:	Naval Air Station Whidbey Island	

	P659		P-8 Training and Parking Apron Expansion	(Sunk)
	Notes:		Naval Air Station Jacksonville Integrated Training Center	
Navy	1205	01	0703676N	
	Project		**Name**	
	P630		P-8/MMA Facilities Modification	(Sunk)
	Notes:		Naval Air Station Jacksonville (Facilities Modifications)	
	P654		P-8A Hangar Upgrades	(Sunk)
	Notes:		Naval Air Station Jacksonville	
Navy	1205	01	0712876N	
	Project		**Name**	
	P655		P-8A Hangar & Training Facility	
	Notes:		Naval Air Station Sigonella	
	P955		P-8A Hangar & Training Facility	
	Notes:		Naval Support Activity Bahrain	
Navy	1205	01	0805376N	
	Project		**Name**	
	P146		MMA Test Facilities, Renovation & Modn	(Sunk)
	Notes:		Multi-mission Maritime Hangar Test Facility Modifications Naval Air Station Patuxent River	
	P147		MMA Technical Supt Facs, Pax River MD	(Sunk)
	Notes:		Multi-mission Maritime Hangar Test Facility Build Naval Air Station Patuxent River	
Navy	1205	01	0805976N	
	Project		**Name**	
	P623		MMA Simulator Training Building	(Sunk)
	Notes:		Naval Air Station Jacksonville (Build of Integrated Training Center)	
Navy	1205	01	0815976N	
	Project		**Name**	
	P251		P-8A Hangar & Training Facility	
	Notes:		Naval Air Station Whidbey Island	
	P624		P-8A Training Facility	(Sunk)
	Notes:		Naval Air Station Jacksonville	

Cost and Funding

Cost Summary

Total Acquisition Cost and Quantity

Appropriation	BY2010 $M			BY2010 $M	TY $M		
	SAR Baseline Prod Est	Current APB Production Objective/Threshold		Current Estimate	SAR Baseline Prod Est	Current APB Production Objective	Current Estimate
RDT&E	8019.1	8303.1	9133.4	8212.9	7951.7	8341.5	8227.5
Procurement	23519.1	21912.5	24103.8	21785.6	25654.7	24954.2	24474.0
Flyaway	--	--	--	17789.9	--	--	19997.1
Recurring	--	--	--	17342.9	--	--	19486.1
Non Recurring	--	--	--	447.0	--	--	511.0
Support	--	--	--	3995.7	--	--	4476.9
Other Support	--	--	--	3557.4	--	--	4005.3
Initial Spares	--	--	--	438.3	--	--	471.6
MILCON	807.7	381.3	419.4	331.8	894.3	428.7	367.7
Acq O&M	0.0	0.0	--	0.0	0.0	0.0	0.0
Total	32345.9	30596.9	N/A	30330.3	34500.7	33724.4	33069.2

Confidence Level for Current APB Cost 50% -

The current APB cost estimate provided sufficient resources to execute the program under normal conditions, encountering average levels of technical, schedule, and programmatic risk and external interference. It was consistent with average resource expenditures based on historical actual cost data and represents a notional 50% confidence level when established. The 50% confidence level does not account for sequestration impacts.

Quantity	SAR Baseline Prod Est	Current APB Production	Current Estimate
RDT&E	5	5	5
Procurement	117	109	109
Total	122	114	114

Warfighting requirement is 117 production aircraft.

Cost and Funding

Funding Summary

Appropriation and Quantity Summary
FY2015 President's Budget / December 2013 SAR (TY$ M)

Appropriation	Prior	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	To Complete	Total
RDT&E	7575.4	239.4	219.0	136.2	39.4	18.1	0.0	0.0	8227.5
Procurement	8837.7	3381.4	2052.0	3215.0	2603.9	2613.7	1713.2	57.1	24474.0
MILCON	107.3	105.9	27.8	126.7	0.0	0.0	0.0	0.0	367.7
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PB 2015 Total	16520.4	3726.7	2298.8	3477.9	2643.3	2631.8	1713.2	57.1	33069.2
PB 2014 Total	16794.8	3870.4	3992.3	3483.2	2843.2	2184.5	1766.6	0.0	34935.0
Delta	-274.4	-143.7	-1693.5	-5.3	-199.9	447.3	-53.4	57.1	-1865.8

Quantity	Undistributed	Prior	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	To Complete	Total
Development	5	0	0	0	0	0	0	0	0	5
Production	0	37	16	8	15	13	13	7	0	109
PB 2015 Total	5	37	16	8	15	13	13	7	0	114
PB 2014 Total	5	37	16	16	16	14	10	8	0	122
Delta	0	0	0	-8	-1	-1	3	-1	0	-8

Cost and Funding

Annual Funding By Appropriation

Annual Funding TY$
1319 | RDT&E | Research, Development, Test, and Evaluation, Navy

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
2002	--	--	--	--	--	--	37.0
2003	--	--	--	--	--	--	65.3
2004	--	--	--	--	--	--	66.3
2005	--	--	--	--	--	--	470.9
2006	--	--	--	--	--	--	927.0
2007	--	--	--	--	--	--	1100.0
2008	--	--	--	--	--	--	860.0
2009	--	--	--	--	--	--	1089.7
2010	--	--	--	--	--	--	1125.5
2011	--	--	--	--	--	--	893.6
2012	--	--	--	--	--	--	581.4
2013	--	--	--	--	--	--	358.7
2014	--	--	--	--	--	--	239.4
2015	--	--	--	--	--	--	219.0
2016	--	--	--	--	--	--	136.2
2017	--	--	--	--	--	--	39.4
2018	--	--	--	--	--	--	18.1
Subtotal	**5**	**--**	**--**	**--**	**--**	**--**	**8227.5**

Annual Funding BY$
1319 | RDT&E | Research, Development, Test, and Evaluation, Navy

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
2002	--	--	--	--	--	--	43.1
2003	--	--	--	--	--	--	75.0
2004	--	--	--	--	--	--	74.1
2005	--	--	--	--	--	--	512.8
2006	--	--	--	--	--	--	979.0
2007	--	--	--	--	--	--	1134.0
2008	--	--	--	--	--	--	870.7
2009	--	--	--	--	--	--	1089.2
2010	--	--	--	--	--	--	1108.4
2011	--	--	--	--	--	--	859.0
2012	--	--	--	--	--	--	549.3
2013	--	--	--	--	--	--	333.6
2014	--	--	--	--	--	--	218.9
2015	--	--	--	--	--	--	196.6
2016	--	--	--	--	--	--	119.9
2017	--	--	--	--	--	--	34.0
2018	--	--	--	--	--	--	15.3
Subtotal	**5**	**--**	**--**	**--**	**--**	**--**	**8212.9**

Annual Funding TY$
1506 | Procurement | Aircraft Procurement, Navy

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	--	109.1	--	--	109.1	--	109.1
2010	6	1360.6	--	54.3	1414.9	383.9	1798.8
2011	7	1382.0	--	31.5	1413.5	492.3	1905.8
2012	11	1977.5	--	29.3	2006.8	280.8	2287.6
2013	13	2252.9	--	32.3	2285.2	451.2	2736.4
2014	16	2827.1	--	30.9	2858.0	523.4	3381.4
2015	8	1257.7	--	29.5	1287.2	764.8	2052.0
2016	15	2572.5	--	56.3	2628.8	586.2	3215.0
2017	13	2281.0	--	63.3	2344.3	259.6	2603.9
2018	13	2199.2	--	72.0	2271.2	342.5	2613.7
2019	7	1266.5	--	111.6	1378.1	335.1	1713.2
2020	--	--	--	--	--	57.1	57.1
Subtotal	**109**	**19486.1**	**--**	**511.0**	**19997.1**	**4476.9**	**24474.0**

Annual Funding BY$
1506 | Procurement | Aircraft Procurement, Navy

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	--	107.8	--	--	107.8	--	107.8
2010	6	1316.7	--	52.5	1369.2	371.5	1740.7
2011	7	1309.7	--	29.9	1339.6	466.4	1806.0
2012	11	1844.9	--	27.3	1872.2	262.0	2134.2
2013	13	2067.0	--	29.6	2096.6	414.1	2510.7
2014	16	2547.9	--	27.8	2575.7	471.7	3047.4
2015	8	1112.1	--	26.1	1138.2	676.2	1814.4
2016	15	2230.4	--	48.8	2279.2	508.3	2787.5
2017	13	1938.9	--	53.8	1992.7	220.7	2213.4
2018	13	1832.7	--	60.0	1892.7	285.4	2178.1
2019	7	1034.8	--	91.2	1126.0	273.7	1399.7
2020	--	--	--	--	--	45.7	45.7
Subtotal	**109**	**17342.9**	**--**	**447.0**	**17789.9**	**3995.7**	**21785.6**

Cost Quantity Information
1506 | Procurement | Aircraft Procurement, Navy

Fiscal Year	Quantity	End Item Recurring Flyaway (Aligned with Quantity) BY 2010 $M
2009	--	--
2010	6	1271.7
2011	7	1304.4
2012	11	1774.5
2013	13	2019.6
2014	16	2541.5
2015	8	1351.4
2016	15	2028.6
2017	13	1952.0
2018	13	1939.3
2019	7	1159.9
2020	--	--
Subtotal	**109**	**17342.9**

Annual Funding TY$
1205 | MILCON | Military Construction, Navy and Marine Corps

Fiscal Year	Total Program TY $M
2006	5.7
2007	16.3
2008	--
2009	48.2
2010	5.9
2011	--
2012	31.2
2013	--
2014	105.9
2015	27.8
2016	126.7
Subtotal	**367.7**

Annual Funding BY$
1205 | MILCON | Military Construction, Navy and Marine Corps

Fiscal Year	Total Program BY 2010 $M
2006	5.9
2007	16.6
2008	--
2009	47.5
2010	5.7
2011	--
2012	28.8
2013	--
2014	94.4
2015	24.3
2016	108.6
Subtotal	**331.8**

Low Rate Initial Production

	Initial LRIP Decision	Current Total LRIP
Approval Date	6/4/2004	7/15/2013
Approved Quantity	34	37
Reference	Milestone B ADM	LRIP Lot IV ADM
Start Year	2010	2010
End Year	2012	2013

The Current Total LRIP Quantity is more than 10% of the total production quantity due to the necessity to establish the initial production base and to achieve an orderly and efficient increase in both the production rate and industry workforce.

Foreign Military Sales

None

Nuclear Costs

None

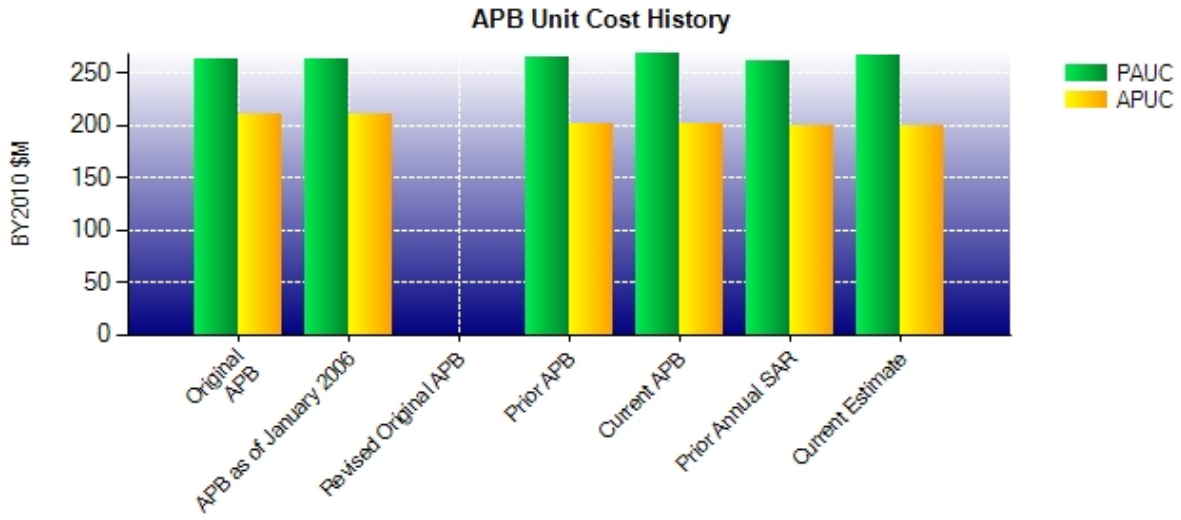
Unit Cost

Unit Cost Report

	BY2010 $M	BY2010 $M	
Unit Cost	**Current UCR Baseline (FEB 2014 APB)**	**Current Estimate (DEC 2013 SAR)**	**BY % Change**
Program Acquisition Unit Cost (PAUC)			
Cost	30596.9	30330.3	
Quantity	114	114	
Unit Cost	268.394	266.055	-0.87
Average Procurement Unit Cost (APUC)			
Cost	21912.5	21785.6	
Quantity	109	109	
Unit Cost	201.032	199.868	-0.58

	BY2010 $M	BY2010 $M	
Unit Cost	**Original UCR Baseline (JUN 2004 APB)**	**Current Estimate (DEC 2013 SAR)**	**BY % Change**
Program Acquisition Unit Cost (PAUC)			
Cost	30271.9	30330.3	
Quantity	115	114	
Unit Cost	263.234	266.055	+1.07
Average Procurement Unit Cost (APUC)			
Cost	22791.2	21785.6	
Quantity	108	109	
Unit Cost	211.030	199.868	-5.29

Unit Cost History



		BY2010 $M		TY $M	
	Date	PAUC	APUC	PAUC	APUC
Original APB	JUN 2004	263.234	211.030	273.292	225.149
APB as of January 2006	JUN 2004	263.234	211.030	273.292	225.149
Revised Original APB	N/A	N/A	N/A	N/A	N/A
Prior APB	OCT 2010	265.130	201.018	282.793	219.271
Current APB	FEB 2014	268.394	201.032	295.828	228.938
Prior Annual SAR	DEC 2012	260.531	198.767	286.352	225.168
Current Estimate	DEC 2013	266.055	199.868	290.081	224.532

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	
273.292	3.671	-4.044	5.221	10.630	-17.830	0.000	11.853	9.501	282.793

Current SAR Baseline to Current Estimate (TY $M)

PAUC Prod Est	Changes								PAUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
282.793	5.062	6.158	4.496	-1.290	-6.802	0.000	-0.336	7.288	290.081

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	
225.149	1.793	-3.468	5.332	0.000	-21.894	0.000	12.359	-5.878	219.271

Current SAR Baseline to Current Estimate (TY $M)

APUC Prod Est	Changes								APUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
219.271	4.682	1.776	4.024	1.027	-5.897	0.000	-0.351	5.261	224.532

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	MAY 2004	MAY 2004	MAY 2004
Milestone C	N/A	MAY 2010	MAY 2010	AUG 2010
IOC	N/A	JUL 2013	JUL 2013	NOV 2013
Total Cost (TY $M)	N/A	31428.6	34500.7	33069.2
Total Quantity	N/A	115	122	114
Prog. Acq. Unit Cost (PAUC)	N/A	273.292	282.793	290.081

Cost Variance

Summary Then Year $M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Prod Est)	7951.7	25654.7	894.3	34500.7
Previous Changes				
Economic	+62.8	+749.8	+20.3	+832.9
Quantity	--	--	--	--
Schedule	+72.9	+376.1	--	+449.0
Engineering	+76.3	+111.9	-335.3	-147.1
Estimating	+26.5	-156.6	-179.1	-309.2
Other	--	--	--	--
Support	--	-391.3	--	-391.3
Subtotal	+238.5	+689.9	-494.1	+434.3
Current Changes				
Economic	-13.0	-239.5	-3.3	-255.8
Quantity	--	-1560.4	--	-1560.4
Schedule	--	+62.5	+1.1	+63.6
Engineering	--	--	--	--
Estimating	+50.3	-486.2	-30.3	-466.2
Other	--	--	--	--
Support	--	+353.0	--	+353.0
Subtotal	+37.3	-1870.6	-32.5	-1865.8
Total Changes	+275.8	-1180.7	-526.6	-1431.5
CE - Cost Variance	8227.5	24474.0	367.7	33069.2
CE - Cost & Funding	8227.5	24474.0	367.7	33069.2

Summary Base Year 2010 $M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Prod Est)	8019.1	23519.1	807.7	32345.9
Previous Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	+68.1	+158.8	--	+226.9
Engineering	+68.4	+94.0	-295.6	-133.2
Estimating	+15.2	-114.0	-153.8	-252.6
Other	--	--	--	--
Support	--	-402.2	--	-402.2
Subtotal	+151.7	-263.4	-449.4	-561.1
Current Changes				
Economic	--	--	--	--
Quantity	--	-1276.4	--	-1276.4
Schedule	--	-52.7	-0.4	-53.1
Engineering	--	--	--	--
Estimating	+42.1	-423.3	-26.1	-407.3
Other	--	--	--	--
Support	--	+282.3	--	+282.3
Subtotal	+42.1	-1470.1	-26.5	-1454.5
Total Changes	+193.8	-1733.5	-475.9	-2015.6
CE - Cost Variance	8212.9	21785.6	331.8	30330.3
CE - Cost & Funding	8212.9	21785.6	331.8	30330.3

Previous Estimate: December 2012

RDT&E	$M	
Current Change Explanations	**Base Year**	**Then Year**
Revised escalation indices. (Economic)	N/A	-13.0
Reduction in FY 2013 funding due to Sequestration Order thereby reducing System Development & Demonstration Integrated Test Team staffing and storage of one test aircraft for four months. (Estimating)	-26.7	-28.6
Increase due to correction of high priority deficiencies. (Estimating)	+78.6	+89.9
Revised estimate to reflect prior year actuals. (Estimating)	-10.3	-11.5
Adjustment due to FY 2015 PB funding realignment. (Estimating)	-11.6	-12.5
Adjustment for current and prior escalation. (Estimating)	+9.2	+9.8
Revised estimate to reflect application of new outyear escalation indices. (Estimating)	+2.9	+3.2
RDT&E Subtotal	+42.1	+37.3

Procurement	$M	
Current Change Explanations	**Base Year**	**Then Year**
Revised escalation indices. (Economic)	N/A	-239.5
Quantity variance resulting from a decrease of eight aircraft from 117 to 109. (Quantity)	-1226.9	-1501.7
Additional Quantity Variance resulting from a decrease of eight aircraft from 117 to 109. (Quantity)	-49.5	-58.7
Schedule Variance resulting from rephasing aircraft (FY 2015 -8, FY 2016 -1, FY 2017 -1, FY 2018 +3, FY 2019 -1). (Schedule)	0.0	+121.7
Additional Schedule Variance resulting from rephasing aircraft in FY 2015-2019. (Schedule)	-52.7	-59.2
Decrease in cost estimate due to change in estimating methodology for labor hours and rates and commercial aircraft pricing. (Estimating)	-476.7	-548.0
Increase in cost estimate due to change in material estimating methodology for Contractor Furnished Equipment and Government Furnished Equipment. (Estimating)	+8.9	+12.1
Increase in cost estimate due to change in estimating methodology for Ancillary equipment. (Estimating)	+10.6	+13.6
Decrease in cost estimate due to benefit in business base created by the Royal Australian Air Force aircraft procurement. (Estimating)	-161.1	-184.8
Adjustment for current and prior escalation. (Estimating)	+78.1	+84.9
Revised estimate to reflect the application of new outyear escalation indices. (Estimating)	+116.9	+136.0
Adjustment for current and prior escalation. (Support)	+16.9	+18.5
Increase in cost estimate for Other Support due to updated actuals and revised interim support strategy. (Support)	+224.4	+289.1
Increase in Initial Spares allocation. (Support)	+41.0	+45.4
Procurement Subtotal	-1470.1	-1870.6

MILCON	$M	
Current Change Explanations	**Base Year**	**Then Year**

Revised escalation indices. (Economic)	N/A	-3.3
Increase due to Naval Air Station Whidbey Island new facility construction delay from FY 2015 to FY 2016. (Schedule)	-0.4	+1.1
Adjustment for current and prior escalation. (Estimating)	+1.2	+1.3
Decrease in cost estimate for Bahrain facilities due to P-8A Hangar and Training Facility estimate revisions. (Estimating)	-4.0	-4.5
Decrease in cost estimate for Sigonella, Italy facilities due to P-8A Hangar and Training Facility estimate revisions. (Estimating)	-1.5	-1.7
Decrease in cost estimate for Whidbey Island facilities due to P-8A Hangar and Apron Expansion estimate revisions. (Estimating)	-23.5	-27.4
Revised estimate to reflect the application of new outyear escalation indices. (Estimating)	+1.7	+2.0
MILCON Subtotal	-26.5	-32.5

Contracts

Appropriation: Procurement	
Contract Name	**P-8A Production Contract for LRIP Lots I - III**
Contractor	The Boeing Company
Contractor Location	Kent, WA 98032-2316
Contract Number, Type	N00019-09-C-0022, FPIF/FFP
Award Date	April 13, 2009
Definitization Date	January 21, 2011

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price at Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
109.1	109.1	N/A	4600.3	4760.6	24	4600.3	4600.3

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to additional awards to Boeing Defense Space and Security for Advance Procurement (AP) and LRIP Lots I through III and associated spares, support equipment, technical data/publications, tools, training devices, and long lead materials.

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (12/19/2013)	+25.3	+21.6
Previous Cumulative Variances	+24.9	+7.2
Net Change	+0.4	+14.4

Cost and Schedule Variance Explanations

The favorable net change in the cost variance is due to efficiencies in aircraft engineering and production that have resulted in underruns in the LRIP Lot II Contract Line Item Number.

The favorable net change in the schedule variance is due to overall early supplier (material) deliveries.

Contract Comments

Contract performace reflects LRIP Lots I through III Earned Value Management (EVM) data. EVM Cost and Schedule Variances for the December 2012 SAR reflect LRIP Lots I and II reporting. Cost and Schedule Variances for December 2013 SAR reflect LRIP Lots I, II, and III reporting. As of December 2013, LRIP Lots I, II and III are respectively 99%, 98% and 18% budget performed complete.

Appropriation: Procurement

Contract Name	**P-8A Production Contract for LRIP Lot IV**
Contractor	The Boeing Company
Contractor Location	Kent, WA 98032-2316
Contract Number, Type	N00019-12-C-0112/0, FPIF/FFP
Award Date	August 31, 2012
Definitization Date	July 31, 2013

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price at Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
244.9	244.9	N/A	1928.2	1991.2	13	1928.2	1928.2

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to additional awards to Boeing Defense Space and Security for Advance Procurement (AP) and LRIP Lot IV and associated spares, support equipment, technical data/publications, tools, training devices, and long lead materials.

Cost and Schedule Variance Explanations

Cost and Schedule Variance reporting is not required on this FPIF/FFP contract.

General Contract Variance Explanation

Cost and Schedule Variance reporting is not available at this time for the contract. LRIP Lot IV reporting will be provided in future SARs following completion of the LRIP Lot IV Integrated Baseline Review, planned in May 2014.

Contract Comments

This is the first time this contract is being reported.

Appropriation: Procurement

Contract Name	**P-8A Production Contract**
Contractor	The Boeing Company
Contractor Location	Kent, WA 98032-2316
Contract Number, Type	N00019-12-C-0112/1, FPIF/FFP
Award Date	July 31, 2013
Definitization Date	February 25, 2014

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price at Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
300.7	300.7	N/A	2300.2	2348.1	16	2300.2	2300.2

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to additional awards to Boeing Defense Space and Security for Advance Procurement (AP) and Full Rate Production (FRP) Lot I and associated spares, support equipment, technical data/publications, tools, training devices, and long lead materials.

Cost and Schedule Variance Explanations

Cost and Schedule Variance reporting is not required on this FPIF/FFP contract.

General Contract Variance Explanation

Cost and Schedule Variance reporting is not available at this time for the contract. FRP Lot I reporting will be provided in future SARs following completion of the FRP Lot I Integrated Baseline Review.

Contract Comments

This is the first time this contract is being reported.

Deliveries and Expenditures

Delivered to Date	Plan to Date	Actual to Date	Total Quantity	Percent Delivered
Development	5	5	5	100.00%
Production	13	13	109	11.93%
Total Program Quantity Delivered	18	18	114	15.79%

Expended and Appropriated (TY $M)			
Total Acquisition Cost	33069.2	Years Appropriated	13
Expended to Date	12558.0	Percent Years Appropriated	68.42%
Percent Expended	37.97%	Appropriated to Date	20247.1
Total Funding Years	19	Percent Appropriated	61.23%

The above data is current as of 3/21/2014.

Although RDT&E deliveries commenced with the first flight test aircraft (airworthiness, T-1), it is not included in the Planned or Actual deliveries since it is not a fully configured end item. The RDT&E delivered quantities include: the second flight test aircraft (mission equipped, T-2); the third flight test aircraft (mission equipped for weapon separation testing, T-3); and T-4, T-5 and T-6, System Development and Demonstration Stage II production representative aircraft. The Fleet has taken delivery of thirteen total LRIP Lots I and II aircraft supporting initial Fleet transition training and operational deployment. All aircraft delivered early or on-time to contracted delivery dates. LRIP Lot III aircraft are on track to begin deliveries in June 2014.

Operating and Support Cost

P-8A

Assumptions and Ground Rules

Cost Estimate Reference:
All costs were estimated in constant FY 2010 dollars, the BY of the estimate. The O&S estimate is dated November 12, 2013 and is based on the P-8A Full Rate Production Service Cost Position quantity profile.

Life cycle is 25 years. Aircraft quantities are: P-8A = 109 (Total Aircraft Inventory (TAI)) and 89 (Primary Authorized Aircraft (PAA) less test assets).

Flight hours per aircraft per year are: P-8A = 699. The calculation is based on summing the total operational flight hours and dividing by total operational aircraft. P-8A operations are based on: one Fleet Replacement Squadron (12 aircraft) and 12 Fleet squadrons (6-7 aircraft each). As a result of reducing P-8A procurement from 117 to 109 aircraft, the P-8A will have a seven six-aircraft and five seven-aircraft squadrons. Previous SAR submittals maintained the Program of Record of 12 seven-aircraft squadrons and a PAA of 96. Estimate duration: start year = 2012, end year = 2044, total years = 33. Estimate uses November 2009 Manpower Estimate Report (MER); MER requirement was adjusted to an authorized level, based on P-3C actual manpower by work center.

Sustainment Strategy:
P-8A O&S costs are based on limited 3-level maintenance.

Antecedent Information:
P-3C O&S costs are based on a 3-level maintenance system. P-3C data was pulled from the Aircraft Type Model Series Report of the Navy Visibility and Management of Operating and Support Costs database in August 2013 (BY 2010 dollar average for FY 2010 - FY 2012). Aircraft quantities: P-3C = 133 (TAI) and 125 (PAA) (P-3C Source: Aircraft Program Data file). Flight hours per aircraft per year are: P-3C = 550. The calculation is based on summing the total operational flight hours and dividing by total operational aircraft. The P-3C flight hours are artificially restricted due to Health of Naval Aviation decisions to manage P-3C operational service life.

Indirect support for P-3C was estimated based on a ratio of mission personnel and intermediate maintenance government labor. Indirect support calculation now a percentage of mission personnel equivalent to the P-8A calculation.

Unitized O&S Costs BY2010 $M		
Cost Element	**P-8A Average Annual Cost Per Aircraft**	**P-3C (Antecedent) Average Annual Cost Per Aircraft**
Unit-Level Manpower	4.049	3.702
Unit Operations	3.028	1.823
Maintenance	4.775	2.876
Sustaining Support	1.006	0.168
Continuing System Improvements	0.998	2.342
Indirect Support	1.747	1.384
Other	0.000	0.000
Total	15.603	12.295

Unitized Cost Comments:

The dollars per aircraft are derived by taking the total O&S cost by element and dividing it by the total operating aircraft years (P-8A: 2,238 aircraft years).

	Total O&S Cost $M			
	Current Production APB Objective/Threshold		Current Estimate	
	P-8A		P-8A	P-3C (Antecedent)
Base Year	34917.5	38409.3	34917.5	27528.5
Then Year	50434.9	N/A	50434.9	N/A

Total O&S Costs Comments:

P-3C Total O&S Cost (BY 2010$) = P-3C Annual O&S Cost per Aircraft times P-8A Total Operating Aircraft Years.

The annual P-3C 3-year average (FY 2010 - FY 2012) sustainment cost is $1.64B (BY 2010) while the P-8A steady state sustainment cost is $1.34B (BY 2010) resulting in an annual cost avoidance of $.30B (BY 2010).

O&S Cost Variance		
Category	BY 2010 $M	Change Explanations
Prior SAR Total O&S Est - Dec 2012	34,658.375	
Cost Estimating Methodology	+390.732	Increase for training expendables, P-3C squadron analogy.
Cost Data Update	-1,295.517	Decrease for Airframe D-check complexity factor, Engine overhaul cost refinement, Naval Supply Systems Command Cost Recovery Rate/Burdening reduction, inflation adjustments and Indirect Support rates.
Labor Rate	+723.720	Increase for Military Pay rates.
Energy Rate	+146.434	Increase Fuel $ / gal. rate (2012 rate).
		Increase for engineering adjustment of the fuel consumption rate

Technical Input	+2,528.229	(decrease), added Sea Operational Detachment manpower, new and emerged parts, updated Reliability and Maintainability, elimination of C-checks for more frequent D-checks.
Programmatic/Planning Factors	-2,234.431	8 aircraft reduction, Flying Hour Program adjustments (including Intermediate Level stand-up and phasing of aircraft delivery and flight hours) and platform sundown adjusted from 2046 to 2044.
Other	0	
Total Changes	+259.167	
Current Estimate	34,917.542	

1. P-8A Full Rate Production (FRP) Service Cost Position quantity profile.

2. Updated parts list and unit price updates from LRIP Lot II contract, found in Appendix Q of FRP Cost Analysis Requirements Document.

3. Updated with 2013 inflation rates, mission personnel labor rates, and indirect labor rates.

4. Cost Estimating Relationships updated to include FY 2012 data.

5. Flight hours per aircraft per year calculation reflects phase-in and phase-out of aircraft.

Disposal Costs:

The Rough Order of Magnitude estimated cost of the demilitarization/disposal phase for the remaining aircraft is $27.458M (BY 2010) / $46.659M (TY). The estimate will be refined as the System Disposal Plan Annex to the Life Cycle Sustainment Plan is developed.