



## Selected Acquisition Report (SAR)

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



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

As of FY 2011 President's Budget

Defense Acquisition Management  
Information Retrieval  
(DAMIR)

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## Common Acronyms and Abbreviations for MDAP Programs

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

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

## Program Information

**Program Name**

P-8A Poseidon (P-8A)

**DoD Component**

Navy

## Responsible Office

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## References

**SAR Baseline (Development Estimate)**

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated June 4, 2004

**Approved APB**

DAE Approved Acquisition Program Baseline (APB) dated June 4, 2004

## Mission and Description

The P-8A Poseidon, formerly known as the Multi-mission Maritime Aircraft (MMA), 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 MMA Operational Requirements Document/Capability Development Document (ORD/CDD) #623-78-03, validated and approved on December 8, 2003. 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 (ISR) capabilities for U.S. 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 (MPRF) Family of Systems that also includes the Broad Area Maritime Surveillance Unmanned Aerial System (BAMS UAS), the EP-3, and the Tactical Operations Center (TOC). The primary roles of P-8A are persistent Anti-Submarine Warfare (ASW) and Anti-Surface Warfare (ASUW). 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 program continues to execute to the Objective value for the Acquisition Program Baseline (APB) schedule parameters and below the Objective APB cost parameter for Research, Development, Test and Evaluation (RDT&E). During this reporting period the contractor requested Over Target Baselines (OTB) as a result of the Boeing Machinists union strike, Stage II aircraft negotiated cost, in-scope design changes, Estimate at Completion and rate pressures, and labor and test. The OTB caused the Total Allocated Budget (TAB) to increase by \$400M since the December 2007 report. This increase in contract cost was addressed through proposed adjustments across the Future Years Defense Program. The Secretary of the Navy approved the Determination and Findings designating the P-8A as a commercial derivative allowing Boeing compliance with the specialty metal requirements of title 10 United States Code, Section 2553b.

The P-8A program continues the fabrication of three Stage I flight test aircraft, two ground test aircraft and three Stage II flight test aircraft using the same manufacturing facilities and processes that will be used to produce the fleet's aircraft. The Royal Australian Air Force (RAAF) joined the P-8A program in April 2009 as a cooperative partner in support of a future incremental capability improvement to the P-8A.

Significant accomplishments since the last report:

1. The P-8A program conducted the Integration Readiness Review (IRR) in April 2008.
2. On December 23, 2008 the Record of Decision was approved for basing twelve P-8A squadrons and one Fleet Replacement Squadron at Naval Air Station Jacksonville, FL, Naval Air Station Whidbey Island, WA, and Marine Corps Base Hawaii at Kaneohe Bay.
3. The P-8A program conducted Test Readiness Reviews (TRR) for the first flight test aircraft (T1-May 2009) and the first ground test aircraft for static test (S1-May 2009).
4. The Interim Program Review (IPR) was completed on April 7, 2009 authorizing the award of the Advanced Acquisition Contract for Advance Procurement (April 13, 2009).
5. The Operational Assessment (OA) was initiated in September 2009 utilizing the Weapon System Integration Lab (WSIL).
6. All of the three flight test aircraft completed their repositioning flights. Flight testing was initiated on October 15, 2009 with the first test flight of the airworthiness test aircraft (T1).
7. Additional reviews conducted in support of readiness for Milestone C were the P-8A Production Readiness Review (PRR) and the TRR for the two mission equipped aircraft (T2 and T3)

There are no significant software related issues with this program at this time. The P-8A program is aggressively managing software development activities. Current software development execution is within the Milestone B projections.

## Threshold Breaches

### APB Breaches

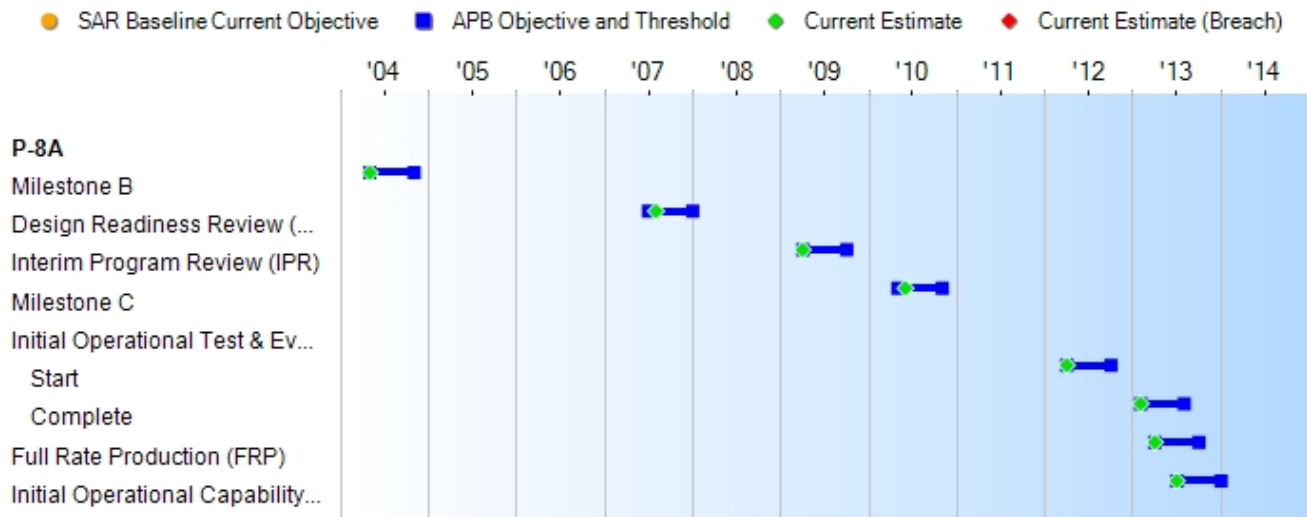
- Schedule
- Performance
- Cost
  - RDT&E
  - Procurement
  - MILCON
  - Acq O&M
- O&S Cost
- Unit Cost
  - PAUC
  - APUC

### Nunn-McCurdy Breaches

- Current UCR Baseline**
  - PAUC None
  - APUC None
- Original UCR Baseline**
  - PAUC None
  - APUC None



# Schedule



Schedule Events				
Events	SAR Baseline Development Estimate	Current APB Development 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	Jun 2010
Initial Operational Test & Evaluation (IOT&E)				
Start	Apr 2012	Apr 2012	Oct 2012	Apr 2012
Complete	Feb 2013	Feb 2013	Aug 2013	Feb 2013
Full Rate Production (FRP)	Apr 2013	Apr 2013	Oct 2013	Apr 2013
Initial Operational Capability (IOC)	Jul 2013	Jul 2013	Jan 2014	Jul 2013

(Ch-1)

### Change Explanations

(Ch-1) The Milestone C Current Estimate changed from May 2010 to June 2010 to allow time to complete the cost estimate.

## Performance

Performance Characteristics				
SAR Baseline Development Estimate	Current APB Development Objective/Threshold		Demonstrated Performance	Current Estimate
<b>Interoperability Information Exchange Requirements (IER)</b>				
Accomplishment of all top-level IERs	Accomplishment of all top-level IERs	Accomplishment of all critical top-level IERs	TBD	Accomplishment of all critical top-level IERs & 84% of remaining Obj IERs
<b>Mission Radius/Endurance Subsurface attack (nm)</b>				
>=1,600	>=1,600	1,200	TBD	1,250
<b>Mixed Stores Loadout (ASW)(lbs)</b>				
12,500	12,500	10,000	TBD	10,000
<b>Initial On-station Altitude (ft)</b>				
>=40,000	>=40,000	25,000	TBD	36,000 (Ch-1)
<b>Operational Availability (ASW)</b>				
.8	.8	.6	TBD	.8 at IOC plus 2 years

### Change Explanations

(Ch-1) Current estimate was reduced from 37,000 to 36,000 due to increased aircraft weight and increased drag resulting from maturation of detailed design.

### Notes

The Current Estimate value for each parameter is based on The Boeing Company (737-800 ERX) selected concept that was determined to be the best value to the Government.

Mixed Stores Loadout: The Acquisition Program Baseline footnote for Mixed Stores Loadout defines the weapons and/or expendables in terms of an equivalent capability to one comprised of MK-50 torpedoes and MK-82 depth bombs and A-size sonobuoys. The program has adjusted the Operational Requirements Document (#623-78-03) for the MK-50 torpedo and the MK-82 depth bomb since these weapons will not be in the inventory when the P-8A is deployed. Per the footnote the program will achieve this capability with "equivalent" weapons.

### Acronyms and Abbreviations

- ASW - Anti-Submarine Warfare
- ft - Feet
- IOC - Initial Operational Capability
- lbs - Pounds
- nm - Nautical miles
- Obj - Objective
- TBD - To be determined

## Track to Budget

### General Notes

P-8A Increment 2 (Project Unit 3181) and Increment 3 (Project Unit 3218) were not included in the Acquisition Program Baseline cost parameters established at Milestone B and are excluded from the funding reported in this SAR.

### RDT&E

Appn	BA	PE	Project	Name
Navy	1319	05	0605500N	
			2696	P-8A Multi-mission Maritime Aircraft/P-8A Multi-mission Maritime Aircraft

### Procurement

Appn	BA	PE	Line Item	Name
Navy	1506	01	0204251N	
			0193	Multi-mission Maritime Aircraft

### MILCON

Appn	BA	PE	Project	Name
Navy	1205	0805376N		
			146	Multi-mission Maritime Aircraft

## Cost and Funding

### Cost Summary

Total Acquisition Cost							
Appropriation	BY 2004 \$M			BY 2004 \$M	TY \$M		
	SAR Baseline Development Estimate	Current APB Development Objective/Threshold		Current Estimate	SAR Baseline Development Estimate	Current APB Development Objective	Current Estimate
RDT&E	6429.6	6429.6	7072.6	6380.2	6975.5	6975.5	7171.0
Procurement	19946.9	19946.9	21941.6	21552.9	24316.1	24316.1	26844.1
Flyaway	--	--	--	19196.8	--	--	23975.4
Recurring	--	--	--	19158.5	--	--	23930.8
Non Recurring	--	--	--	38.3	--	--	44.6
Support	--	--	--	2356.1	--	--	2868.7
Other Support	--	--	--	2049.5	--	--	2503.0
Initial Spares	--	--	--	306.6	--	--	365.7
MILCON	117.5	117.5	129.3	107.8	137.0	137.0	125.8
Acq O&M	0.0	0.0	--	0.0	0.0	0.0	0.0
Total	26494.0	26494.0	N/A	28040.9	31428.6	31428.6	34140.9

Total Quantity			
Quantity	SAR Baseline Development Estimate	Current APB Development	Current Estimate
RDT&E		7	5
Procurement		108	117
Total		115	122

#### Quantity Notes

Research, Development, Test and Evaluation (RDT&E) budget reflects a total of six aircraft. This includes three Stage I flight test aircraft (one not fully configured) to support Integrated Test and Evaluation (combined Developmental and Operational Test approach) and three Stage II flight test aircraft to support the completion of Integrated Test and Evaluation and Initial Operational Test and Evaluation. The total number of fully configured end items for RDT&E is two Stage I and three Stage II.

The aircraft quantity increase from 108 to 117, since the December 2007 SAR, was a result of the Navy increasing the total Procurement Quantity in the FY 2010 President's Budget.

## Cost and Funding

### Funding Summary

Appropriation Summary									
FY 2011 President's Budget / December 2009 SAR (TY\$ M)									
Appropriation	Prior	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total
RDT&E	4598.4	1128.0	923.3	339.7	113.9	34.4	33.3	0.0	7171.0
Procurement	110.2	1920.3	2063.0	2531.3	3134.9	3950.1	5163.9	7970.4	26844.1
MILCON	70.2	5.9	0.0	49.7	0.0	0.0	0.0	0.0	125.8
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PB 2011 Total	4778.8	3054.2	2986.3	2920.7	3248.8	3984.5	5197.2	7970.4	34140.9
PB 2009 Total	4841.6	3032.8	2950.1	2779.2	3160.4	3379.3	2978.7	9730.8	32852.9
Delta	-62.8	21.4	36.2	141.5	88.4	605.2	2218.5	-1760.4	1288.0

Quantity Summary										
FY 2011 President's Budget / December 2009 SAR (TY\$ M)										
Quantity	Undistributed	Prior	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total
Development	5	0	0	0	0	0	0	0	0	5
Production	0	0	6	7	9	13	17	23	42	117
PB 2011 Total	5	0	6	7	9	13	17	23	42	122
PB 2009 Total	5	0	6	8	10	13	13	13	45	113
Delta	0	0	0	-1	-1	0	4	10	-3	9

## Cost and Funding

### Annual Funding By Appropriation

Annual Funding							
1319   RDT&E   Research, Development, Test, and Evaluation, Navy							
Fiscal Year	Quantity	TY \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2002	--	--	--	--	--	--	37.0
2003	--	--	--	--	--	--	65.3
2004	--	--	--	--	--	--	66.3
2005	--	--	--	--	--	--	470.9
2006	--	--	--	--	--	--	927.0
2007	--	--	--	--	--	--	1100.0
2008	--	--	--	--	--	--	852.6
2009	--	--	--	--	--	--	1079.3
2010	--	--	--	--	--	--	1128.0
2011	--	--	--	--	--	--	923.3
2012	--	--	--	--	--	--	339.7
2013	--	--	--	--	--	--	113.9
2014	--	--	--	--	--	--	34.4
2015	--	--	--	--	--	--	33.3
Subtotal	5	--	--	--	--	--	7171.0

Annual Funding 1319   RDT&E   Research, Development, Test, and Evaluation, Navy							
Fiscal Year	Quantity	BY 2004 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2002	--	--	--	--	--	--	37.8
2003	--	--	--	--	--	--	65.8
2004	--	--	--	--	--	--	65.0
2005	--	--	--	--	--	--	449.7
2006	--	--	--	--	--	--	858.5
2007	--	--	--	--	--	--	994.5
2008	--	--	--	--	--	--	757.0
2009	--	--	--	--	--	--	947.1
2010	--	--	--	--	--	--	979.3
2011	--	--	--	--	--	--	790.4
2012	--	--	--	--	--	--	286.1
2013	--	--	--	--	--	--	94.3
2014	--	--	--	--	--	--	28.0
2015	--	--	--	--	--	--	26.7
Subtotal	5	--	--	--	--	--	6380.2

Annual Funding 1506   Procurement   Aircraft Procurement, Navy								
Fiscal Year	Quantity	TY \$M						
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program	
2009	--	110.2	--	--	110.2	--	110.2	
2010	6	1442.7	--	44.6	1487.3	433.0	1920.3	
2011	7	1620.9	--	--	1620.9	442.1	2063.0	
2012	9	1983.3	--	--	1983.3	548.0	2531.3	
2013	13	2730.2	--	--	2730.2	404.7	3134.9	
2014	17	3569.9	--	--	3569.9	380.2	3950.1	
2015	23	4645.9	--	--	4645.9	518.0	5163.9	
2016	23	4400.4	--	--	4400.4	85.1	4485.5	
2017	19	3427.3	--	--	3427.3	57.6	3484.9	
Subtotal	117	23930.8	--	44.6	23975.4	2868.7	26844.1	



Annual Funding 1506   Procurement   Aircraft Procurement, Navy								
Fiscal Year	Quantity	BY 2004 \$M						
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program	
2009	--	95.8	--	--	95.8	--	95.8	
2010	6	1238.3	--	38.3	1276.6	371.6	1648.2	
2011	7	1369.7	--	--	1369.7	373.6	1743.3	
2012	9	1648.2	--	--	1648.2	455.4	2103.6	
2013	13	2231.0	--	--	2231.0	330.7	2561.7	
2014	17	2868.4	--	--	2868.4	305.5	3173.9	
2015	23	3670.6	--	--	3670.6	409.2	4079.8	
2016	23	3418.5	--	--	3418.5	66.1	3484.6	
2017	19	2618.0	--	--	2618.0	44.0	2662.0	
Subtotal	117	19158.5	--	38.3	19196.8	2356.1	21552.9	

Cost Quantity Information		
1506   Procurement   Aircraft Procurement, Navy		
Fiscal Year	Quantity	End Item Recurring Flyaway (Aligned With Quantity) BY 2004 \$M
2009	--	--
2010	6	1215.6
2011	7	1347.7
2012	9	1577.0
2013	13	2170.4
2014	17	2777.6
2015	23	3670.6
2016	23	3494.1
2017	19	2905.5
Subtotal	117	19158.5

Annual Funding 1205   MILCON   Military Construction, Navy and Marine Corps	
Fiscal Year	TY \$M
	Total Program
2006	5.7
2007	16.3
2008	--
2009	48.2
2010	5.9
2011	--
2012	49.7
Subtotal	125.8

Annual Funding 1205   MILCON   Military Construction, Navy and Marine Corps	
Fiscal Year	BY 2004 \$M
	Total Program
2006	5.2
2007	14.5
2008	--
2009	41.8
2010	5.1
2011	--
2012	41.2
Subtotal	107.8

The Military Construction (MILCON) requirement for P-8A as defined in the Acquisition Program Baseline (APB) is based on an initial estimate to modify an existing facility at Naval Air Station (NAS) Jacksonville to create an Integrated Training Center to support the future P-8A aircraft system; the establishment of System Development and Demonstration (SDD) test facilities at NAS Patuxent River (primarily a modification to existing facilities); training, storage, and administrative modifications required at the anticipated four deployment sites for P-8A; and Performance Based Logistics (PBL) warehouse space. The PBL concept, which includes Supply Chain Management (SCM), requires dedicated Government owned P-8A warehouse space at each Main Operating Base (MOB) and Primary Deployment Site (PDS) to house all contractor managed spares and repair parts. The PBL warehouse space requirement for each MOB and PDS will be evaluated as part of the site survey with the intention of minimizing new construction. Additional MILCON to modify existing hangars and ramp space to support P-8A may be identified after the site survey is performed during the SDD work effort.

## Low Rate Initial Production

Item	Initial LRIP Decision	Current Total LRIP
<b>Approval Date</b>	6/4/2004	6/4/2004
<b>Approved Quantity</b>	34	34
<b>Reference</b>	ADM	ADM
<b>Start Year</b>	2010	2010
<b>End Year</b>	2012	2012

The Under Secretary of Defense for Acquisition, Technology and Logistics approved a Low Rate Initial Production (LRIP) quantity at Milestone B not to exceed 34 aircraft, which exceeds 10% of total production quantity. The FY11 President's Budget funds a total of 22 LRIP aircraft. The LRIP quantity requested is necessary to establish the initial production base and achieve an orderly and efficient increase in the production rate and industrial workforce.

## **Foreign Military Sales**

None

## **Nuclear Costs**

None

## Unit Cost

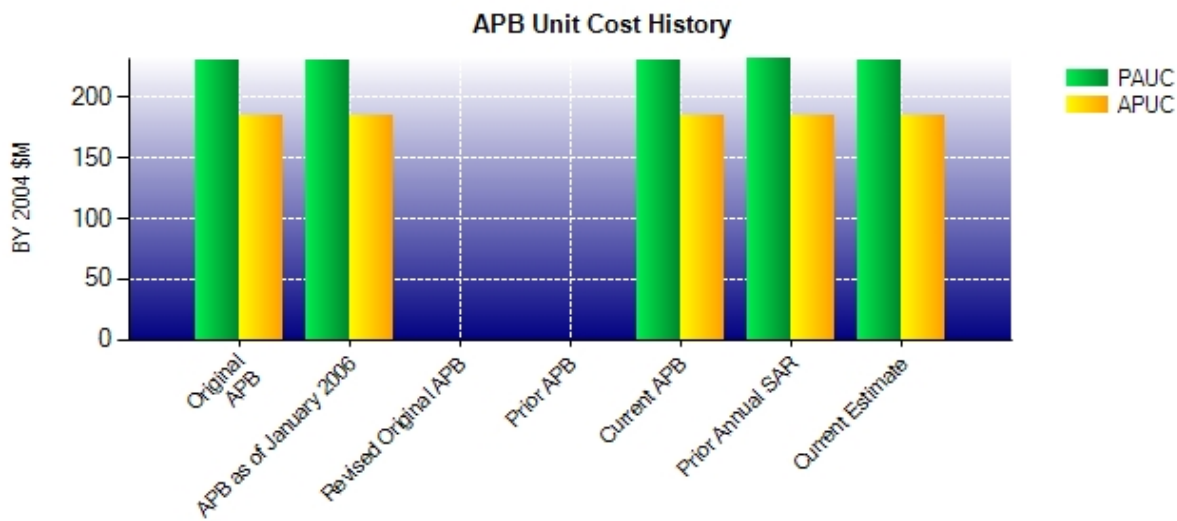
### Unit Cost Report

Item	BY 2004 \$M	BY 2004 \$M	% Change
	Current UCR Baseline (Jun 2004 APB)	Current Estimate (Dec 2009 SAR)	
<b>Program Acquisition Unit Cost</b>			
Cost	26494.0	28040.9	
Quantity	115	122	
Unit Cost	230.383	229.843	-0.23
<b>Average Procurement Unit Cost</b>			
Cost	19946.9	21552.9	
Quantity	108	117	
Unit Cost	184.694	184.213	-0.26

Item	BY 2004 \$M	BY 2004 \$M	% Change
	Original UCR Baseline (Jun 2004 APB)	Current Estimate (Dec 2009 SAR)	
<b>Program Acquisition Unit Cost</b>			
Cost	26494.0	28040.9	
Quantity	115	122	
Unit Cost	230.383	229.843	-0.23
<b>Average Procurement Unit Cost</b>			
Cost	19946.9	21552.9	
Quantity	108	117	
Unit Cost	184.694	184.213	-0.26



**Unit Cost History**



Item	Date	BY 2004 \$M		TY \$M	
		PAUC	APUC	PAUC	APUC
Original APB	Jun 2004	230.383	184.694	273.292	225.149
APB as of January 2006	Jun 2004	230.383	184.694	273.292	225.149
Revised Original APB	N/A	N/A	N/A	N/A	N/A
Prior APB	N/A	N/A	N/A	N/A	N/A
Current APB	Jun 2004	230.383	184.694	273.292	225.149
Prior Annual SAR	Dec 2007	231.706	184.057	290.734	238.168
Current Estimate	Dec 2009	229.843	184.213	279.843	229.437

**SAR Unit Cost History**

Current SAR Baseline to Current Estimate (TY \$M)									
Initial PAUC Development Estimate	Changes								PAUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
273.292	3.410	-4.045	5.816	1.584	0.794	0.000	-1.008	6.551	279.843

Current SAR Baseline to Current Estimate (TY \$M)									
Initial APUC Development Estimate	Changes								APUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
225.149	1.581	-3.468	5.952	0.000	1.274	0.000	-1.051	4.288	229.437

<b>SAR Baseline History</b>				
<b>Item</b>	<b>SAR Planning Estimate</b>	<b>SAR Development Estimate</b>	<b>SAR Production Estimate</b>	<b>Current Estimate</b>
Milestone A	N/A	N/A	N/A	N/A
Milestone B	N/A	May 2004	N/A	May 2004
Milestone C	N/A	May 2010	N/A	Jun 2010
IOC	N/A	Jul 2013	N/A	Jul 2013
Total Cost (TY \$M)	N/A	31428.6	N/A	34140.9
Total Quantity	N/A	115	N/A	122
PAUC	N/A	273.292	N/A	279.843

## Cost Variance

Summary TY \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Development Estimate)	6975.5	24316.1	137.0	31428.6
Previous Changes				
Economic	+278.1	+998.4	+5.8	+1282.3
Quantity	-201.0	--	--	-201.0
Schedule	+13.0	+818.4	+0.1	+831.5
Engineering	+165.4	--	--	+165.4
Estimating	-252.3	-429.5	+9.2	-672.6
Other	--	--	--	--
Support	--	+18.7	--	+18.7
Subtotal	+3.2	+1406.0	+15.1	+1424.3
Current Changes				
Economic	-49.9	-813.4	-3.0	-866.3
Quantity	--	+1620.6	--	+1620.6
Schedule	--	-122.0	--	-122.0
Engineering	--	--	+27.9	+27.9
Estimating	+242.2	+578.5	-51.2	+769.5
Other	--	--	--	--
Support	--	-141.7	--	-141.7
Subtotal	+192.3	+1122.0	-26.3	+1288.0
Total Changes	+195.5	+2528.0	-11.2	+2712.3
Current Estimate	7171.0	26844.1	125.8	34140.9

Summary BY 2004 \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Development Estimate)	6429.6	19946.9	117.5	26494.0
Previous Changes				
Economic	--	--	--	--
Quantity	-175.4	--	--	-175.4
Schedule	+11.1	+259.6	-0.2	+270.5
Engineering	+137.8	--	--	+137.8
Estimating	-224.1	-337.3	+8.3	-553.1
Other	--	--	--	--
Support	--	+9.0	--	+9.0
Subtotal	-250.6	-68.7	+8.1	-311.2
Current Changes				
Economic	--	--	--	--
Quantity	--	+1240.5	--	+1240.5
Schedule	--	+58.6	--	+58.6
Engineering	--	--	+23.0	+23.0
Estimating	+201.2	+468.1	-40.8	+628.5
Other	--	--	--	--
Support	--	-92.5	--	-92.5
Subtotal	+201.2	+1674.7	-17.8	+1858.1
Total Changes	-49.4	+1606.0	-9.7	+1546.9
Current Estimate	6380.2	21552.9	107.8	28040.9

Previous Estimate: December 2007

RDT&E	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-49.9
Adjustment for current and prior escalation. (Estimating)	+19.6	+22.6
Removal of Increment 2 (Project Unit 3181) development which will be separately reported. (Estimating)	-126.5	-147.9
Increased scope to include correction of deficiencies. (Estimating)	+174.1	+210.8
Increased cost due to additional effort required for Test & Evaluation, resolution of aircraft weight growth and change in Electro-Optical/Infra-Red subsystem. (Estimating)	+71.4	+83.7
Increased cost due to Boeing machinists union strike and associated increase in rates. (Estimating)	+62.6	+73.0
<b>RDT&amp;E Subtotal</b>	<b>+201.2</b>	<b>+192.3</b>

Procurement	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-813.4
Total Quantity variance resulting from an increase of 9 units from 108 to 117. (Subtotal)	+1357.3	+1776.9
Quantity variance resulting from an increase of 9 units from 108 to 117. (Quantity)	(+1319.1)	(+1726.9)
Allocation to Schedule resulting from Quantity change. (Schedule) (QR)	(+57.3)	(+75.0)
Allocation to Estimating resulting from Quantity change. (Estimating) (QR)	(-19.1)	(-25.0)
Additional Quantity Variance associated with an increase of 9 aircraft from 108 to 117. (Quantity)	-78.6	-106.3
Acceleration of procurement buy profile. Aircraft redistributed across buy profile eliminating FY18 and FY19. (Schedule)	0.0	-187.8
Additional Schedule Variance associated with the accelerated procurement profile. (Schedule)	+1.3	-9.2
Adjustment for current and prior escalation. (Estimating)	+24.2	+28.2
Revision of estimate to reflect the application of new material escalation indices. (Estimating)	+7.2	+8.7
Increase in cost estimate due to revised assumptions for labor rates, learning curves, and other minor estimating changes. (Estimating)	+49.0	+61.4
Increase in cost estimate due to commercial aircraft pricing, avionics maturation, and aircraft design changes. (Estimating)	+406.8	+505.2
Adjustment for current and prior escalation. (Support)	+5.4	+6.3
Increase in Other Support. (Support) (QR)	+127.5	+130.5
Decrease in Initial Spares due to an updated long-term support strategy. (Support)	-225.4	-278.5
<b>Procurement Subtotal</b>	<b>+1674.7</b>	<b>+1122.0</b>

(QR) Quantity Related

MILCON	\$M	
Current Change Explanations	Base Year	Then Year

Revised escalation indices. (Economic)	N/A	-3.0
Adjustment for current and prior escalation. (Estimating)	+0.4	+0.5
Increased scope of Integrated Training Center to include two additional trainers (Engineering)	+23.0	+27.9
Estimate reduction due to capitalizing on planned Base Realignment and Closure of FY-05 MILCON for P-3C (Estimating)	-41.2	-51.7
MILCON Subtotal	-17.8	-26.3

## Contracts

### Contract Identification

**Appropriation:** RDT&E  
**Contract Name:** MMA SDD  
**Contractor:** The Boeing Company  
**Contractor Location:** Seattle, WA 98124-2499  
**Contract Number:** N00019-04-C-3146  
**Contract Type:** Cost Plus Award Fee (CPAF)  
**Award Date:** June 14, 2004  
**Definitization Date:** June 14, 2004

Contract Price							
Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
3890.0	N/A	3	4991.2	N/A	6	6329.9	6462.0

### Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to

Contract Variance		
Item	Cost Variance	Schedule Variance
Cumulative Variances To Date (12/17/2009)	-146.1	-65.3
Previous Cumulative Variances	-79.7	-36.3
Net Change	-66.4	-29.0

### Cost and Schedule Variance Explanations

#### General Contract Variance Explanation

The unfavorable net change to the cost variance of -\$66.4M is attributed to a higher than anticipated level of resources required for Manufacturing Operations, greater Test and Evaluation and Ground Test effort than planned, unanticipated complexities with the Mission Systems subcontractor and supplier activities and increases in contractor rates.

The unfavorable net change to the schedule variance of -\$29M is attributed to Aircraft Systems and Mission Systems subcontractor and supplier design and development delays.

#### Notes

The increase to the initial contract price from \$3890.0M to \$4991.2 is a result of contract modifications that addressed software development risks identified during Component Advanced Development, approved Over Target Baseline (OTB) requests from Boeing, the addition of three Stage II aircraft to support Initial Operational Test and Evaluation, and resolution of the Boeing machinists union strike.

**Contract Identification**

**Appropriation:** Procurement  
**Contract Name:** P-8A Advanced Acquisition Contract for LRIP Lots I and II  
**Contractor:** The Boeing Company  
**Contractor Location:** Kent, WA 98032-2316  
**Contract Number:** N00019-09-C-0022  
**Contract Type:** Firm Fixed Price (FFP)  
**Award Date:** April 13, 2009  
**Definitization Date:** June 14, 2010

Contract Price							
Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
109.1	N/A	N/A	109.1	N/A	N/A	109.1	109.1

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

**Cost and Schedule Variance Explanations**

**Notes**

The Advanced Acquisition Contract (AAC) is a sole-source Firm Fixed Price award to Boeing that includes the purchase of components, material, parts and effort where advance procurement is required to maintain the P-8A planned production schedule for Low Rate Initial Procurement (LRIP) Lots I and II.



## Deliveries and Expenditures

Deliveries				
Delivered to Date	Planned to Date	Actual to Date	Total Quantity	Percent Delivered
Development	0	0	5	0.00%
Production	0	0	117	0.00%
Total Program Quantity Delivered	0	0	122	0.00%

Expended and Appropriated (TY \$M)			
Total Acquisition Cost	34140.9	Years Appropriated	9
Expended to Date	5165.4	Percent Years Appropriated	56.25%
Percent Expended	15.13%	Appropriated to Date	7833.0
Total Funding Years	16	Percent Appropriated	22.94%

Expenditures reflect RDT&E for System Development and Demonstration work effort, Procurement for Low Rate Initial Production Lot 1 Advance Procurement, and MILCON associated with the P-8A Integrated Test Team facility at Naval Air Station Patuxent River, MD.

## Operating and Support Cost

### Assumptions and Ground Rules

All costs were estimated in constant FY04 dollars, the Base Year (BY) of the estimate. The date of the Operations and Support (O&S) estimate is January 2006.

P-8A operating and support costs are based on 2-level maintenance. P-3C operating and support costs are based on a 3-level maintenance system. Life cycle is phase-in +25 years, plus phase out years of operation per aircraft. Aircraft quantities are: P-8A = 108; P-3C = 180. Flight hours per aircraft per year are: P-8A = 523; P-3C = 535.

Although the per aircraft costs appear to favor the P-3C, the P-8A will provide improved capabilities with less flight hours, fewer aircraft (108 P-8A aircraft versus 180 P-3C aircraft), resulting in significant total O&S cost savings. For example, the average annual O&S cost comparison of each of the forces (equivalent mission) are: P-8A = \$805M/Year (BY-04\$); P-3C = \$1,015M/Year (BY-04\$). A comparison of the O&S costs using this metric eliminates variances caused by different force structures and the resulting fixed versus variable cost shares associated with the unit aircraft comparison.

The Then Year (TY) total O&S cost is highly sensitive to out-year inflation projections. Specifically, commercial labor inflation has the potential to dramatically influence the TY cost on the P-8A program.

An O&S cost estimate is being updated in support of Milestone C scheduled for May 2010 which will include adjustments for the increased quantity (9). This updated O&S estimate will be reported in the SAR following the Milestone C review.

#### Cost Estimate Reference:

None

#### Sustainment Strategy:

None

#### Antecedent Information:

None

Unitized O&S Costs BY2004 \$M			
Cost Element	P-8A Average Annual Cost Per Aircraft	P-3C (Antecedent) Average Annual Cost Per Aircraft	
Mission Pay & Allowance	2.845	1.919	
Unit Level Consumption	2.028	1.719	
Intermediate Maintenance	--	0.230	
Depot Maintenance	0.634	0.368	
Contractor Support	0.038	0.000	
Sustaining Support	1.005	0.461	
Indirect	0.901	0.946	
Other	--	--	
Total	7.451	5.643	

#### Unitized Cost Comments:

None

Item	Total O&S Cost \$M			
	P-8A			P-3C (Antecedent)
	Current Development APB Objective/Threshold		Current Estimate	
<b>Base Year</b>	18984.0	20882.4	20508.0	27804.0
<b>Then Year</b>	35135.9	N/A	38770.0	57283.0

Total O&S Cost Comment

None

**Disposal Estimate Details**

Date of Estimate:

Source of Estimate:

Disposal/Demilitarization Total Cost (BY 2004 \$M):